Washington Department of
FISH & WILDLIFE

2026 Supplemental Capital Budget Request

State of Washington
DEPARTMENT OF FISH AND WILDLIFE
Mailing Address: P.O. Box 43200, Olympia, WA 98504-3200 • (360) 902-2200 • TDD (360) 902-2207
Main Office Location: Natural Resources Building, 1111 Washington Street SE, Olympia, WA

September 15, 2025

K.D. Chapman-See, Director
Office of Financial Management
300 Insurance Building
Olympia, WA 98504-3113

Dear Director Chapman-See:

The FY26 Supplemental Capital Budget request for the Washington Department of Fish and Wildlife is enclosed. This budget request reflects only the most urgent and emergent capital needs that support the Department's dedication to conserving heathy fish and wildlife populations, sustainable outdoor experiences, supporting a strong economy and social values, and pursuing operational excellence. Our supplemental request is carefully aligned with the WDFW 25-year Strategic Plan.

To Provide Fish, Wildlife, and Habitat Recreation – Snow Creek Resort Boating Access Demolition - $220,000

The Department is committed to the safe and sustainable management of our lands, for the public, for our staff, and for the ecosystems. The Department's request reflects a strong desire to reduce risk in public access while providing unique public access to the Salish Sea. This Supplemental request includes a request for funds to supplement a Major Project – Snow Creek Resort Boating Access. There is an urgent need to demolish a structure that has become a nuisance property and is unsafe for the public. Demolishing this structure ahead of the primary construction will allow us to open the site for hand launch usage until the construction in 27-29 biennium.

Thank you for your time and consideration. Please contact Kristen Kuykendall, Director, Capital and Asset Management Program at (360) 269-6433 for any additional information.

Sincerely,

Kelly Susewind
Director

Enclosure

cc: Fish and Wildlife Commissioners
Amy Windrope, Deputy Director, WDFW
Kristen Kuykendall, Director, Capital and Asset Management Program, WDFW
Morgan Stinson, Budget Director, WDFW

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE
CAPITAL BUDGET 2026 SUPPLEMENTAL REQUEST

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TAB A

OFM

477 - Department of Fish and Wildlife
Ten Year Capital Plan by Project Class
2025-27 Biennium
*

Version: DH WDFW 2026 Supplemental Request

Report Number: CBS001
Date Run: 9/12/2025 5:18PM

Project Class: Preservation (State-Owned)

Agency Priority	Project by Account-EA Type	Estimated Total	Prior Expenditures	Current Expenditures	Reapprop 2025-27	New Approp 2025-27	Estimated 2027-29	Estimated 2029-31	Estimated 2031-33	Estimated 2033-35
1	**30000826 Snow Creek Reconstruct Facility**									
	057-1 State Bldg Constr-State	8,097,061	61	1,000		220,000	6,896,000	980,000		

Total Account Summary

Account-Expenditure Authority Type	Estimated Total	Prior Expenditures	Current Expenditures	Reapprop 2025-27	New Approp 2025-27	Estimated 2027-29	Estimated 2029-31	Estimated 2031-33	Estimated 2033-35
057-1 State Bldg Constr-State	8,097,061	61	1,000		220,000	6,896,000	980,000		

OFM

Ten Year Capital Plan by Project Class

*

Report Number: CBS001
Date Run: 9/12/2025 5:18PM

Parameter	Entered As	Interpreted As
Biennium	2025-27	2025-27
Functional Area	*	All Functional Areas
Agency	477	477
Version	DH-A	DH-A
Project Classification	*	All Project Classifications
Include Enacted	No	No
Sort Order	Project Class	Project Class
Include Page Numbers	N	No
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

September 5, 2024

Kristen Kuykendall
Program Director
Capital and Asset Management Program
WDFW

In future correspondence please refer to:
Project Tracking Code: 2024-09-06324
Property: Washington Department of Fish and Wildlife Preliminary Project Review 2025-2027 Capital Budget Request
Re:

Dear Kristen:

Thank you for contacting the Washington State Department of Archaeology and Historic Preservation (DAHP) regarding the 2025-2027 Budget Request. The State Historic Preservation Officer (SHPO) has reviewed this action under the provisions of Governor's Executive Order 21-02. Our review is based on the documentation contained in your communication.

We appreciate the opportunity to comment early on potential projects within the next biennium and look forward to being consulted on the individual projects in the near future. Regarding the consultation process laid out in Attachment 2 of your letter, we have the following comments:

- Please ensure the APE, archaeological site forms, historic property inventories, and cultural resource reports are submitted via WISAARD. This will streamline the review process and ensure the fastest review times.
- The appropriate cultural resource professionals should complete all cultural resource studies and reports. For example, a SOI Qualified Architectural Historian will complete all built environment work, not an archaeologist, and vice versa.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer in conformance with Executive Order 21-02. Thank you for the opportunity to review and comment. If you have any questions, please feel free to contact me.

Sincerely,

Maddie Levesque, M.A
Architectural Historian
(360) 819-7203
Maddie.Levesque@dahp.wa.gov

OFM

477 - Department of Fish and Wildlife
Capital FTE Summary
2025-27 Biennium
*

Version: AA 2025-27 Capital Budget Request

Report Number: CBS004
Date Run: 9/10/2024 2:58PM

FTEs by Job Classification

	Authorized Budget 2023-25 Biennium		2025-27 Biennium	
Job Class	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
Administrative Assistant			1.2	1.2
Budget Analyst			1.0	1.0
Carpenter			1.0	1.0
Construction & Maintenance Project Lead			5.0	5.0
Construction & Maintenance Project Supv			13.0	13.0
Construction Project Coordinator			19.0	19.0
Contracts Specialist			3.0	3.0
Eletrician			2.0	2.0
Engineering Aide			9.0	9.0
Engineering Technician Supervisor			1.0	1.0
Environmental Engineer			12.0	12.0
Environmental Planner			11.0	11.0
Equipment Operator			3.0	3.0
Equipment Technician			1.0	1.0
Facilities Services Planner			1.0	1.0
Land Surveyor			3.0	3.0
Maintenance Mechanic			15.0	15.0
Management Analyst			1.0	1.0
Property & Acquisition Specialist			1.8	1.8
Safety Officer			0.3	0.3
Utility Worker			0.9	0.9
Welder - Fabricator			3.0	3.0
Total FTEs			**108.2**	**108.2**

Account

	Authorized Budget 2023-25 Biennium		2025-27 Biennium	
Account - Expenditure Authority Type	**FY 2024**	**FY 2025**	**FY 2026**	**FY 2027**
001-2 General Fund-Federal			70	70
057-1 State Bldg Constr-State			8	8
110-2 Spec Wildlife-Federal			83	83
Total Funding			**161**	**161**

Narrative

FY 2026 and FY 2027 FTEs reflect a scaled number based on FY 24 actual FTE'S. Actual FTEs required for BN 2025-27 may be higher or lower depending on level of appropriation. Account funding levels reflect a scaled number based on FY 24 expenditures for salaries and benefits.

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OFM

Capital FTE Summary

2025-27 Biennium

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Report Number: CBS004
Date Run: 9/10/2024 2:58PM

Parameter	Entered As	Interpreted As
Biennium	2025-27	2025-27
Agency	477	477
Version	AA-A	AA-A
Include Page Numbers	Y	Yes
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget

FY 26 Backlog of Projects

$788,051,830

	Project Title	Total Budget Estimate
1	4-O Ranch - Construct Campground "The Park"	$325,000
2	4-O Ranch - Wenatchee Creek Trails	$85,000
3	93rd Lathrop Enforcement Shop Infrastructure Improvement Plan	$1,406,000
4	93rd Lathrop Shop Heating and Electrical Work	$90,000
5	Access Area Ramp Repairs	$250,000
6	Arlington Hatchery - Replace Circular Ponds	$200,000
7	Arlington Hatchery Renovation	$12,453,000
8	Armstrong Lake Access Ramp	$300,000
9	Bellingham Hatchery - Water pipeline modification	$200,000
10	Bellingham Hatchery Main Water Supply	$600,000
11	Big Bend WLA - Construct New Boundary Fence	$1,000,000
12	Bingham Bridge Repair	$540,000
13	Bingham Creek Hatchery - Asphalt Pond Repair	$400,000
14	Bingham Creek Hatchery - Incubation Supply Line	$724,000
15	Bingham Creek Hatchery - Rehab Wells	$300,000
16	Bingham Creek Hatchery - Upgrade Pollution Abatement Pond	$750,000
17	Bingham Creek Hatchery Well Supply Line Replacement	$250,000
18	Bingham Creek Replace 5 raceways	$2,790,000
19	Bingham Creek Smolt & Adult Trap Site Repair & Upgrade	$1,878,000
20	Blythe Access Replace Ramp	$600,000
21	Bob Oke Game Farm - Renovate facilities	$480,000
22	Bob Oke Game Farm- Water rights and irrigation system	$200,000
23	Bob Oke Game Farm- 3 automated feed augers and bins in brood barns	$120,000
24	Bogachiel Hatchery - Repairs to Infiltration Area	$300,000
25	Bogachiel Hatchery - Replace Office Facility	$750,000
26	Buckskin Creek Rearing Site Crossing	$350,000
27	CAMP Shops Restroom Renovations	$200,000
28	Capitol Way - Renovations to 600 Capitol Way	$7,501,000
29	Chambers Creek Fishway Repairs	$4,613,000
30	Chapman Lake Development	$2,000,000
31	Chehalis River Wildlife Areas - Eliminating Infrastructure Liabilities and Making Improvements	$979,000
32	Chehalis Unit - Removal of Buildings	$100,000

33	Chelan Hatchery - Replace existing round ponds with fiberglass	$850,000
34	Chelan Hatchery Renovation	$14,895,000
35	Chelan Hatchery Walkway Repairs	$232,000
36	Chelan WLA - Beebe Springs Bridge Repair	$50,000
37	Chelan WLA - Boundary Surveys	$150,000
38	Chelan WLA - Butte Sheep/Deer Fencing	$600,000
39	Chelan WLA - Lucas Homestead Preservation	$150,000
40	Chelan WLA - Open Bay Storage	$400,000
41	Chelan WLA - Repair Frank's Pond Outlet Piping	$12,000
42	Chelan WLA - Road Renovation	$250,000
43	Chelan WLA - Surveys	$45,000
44	Chelan WLA - Swakane Residence Renovations	$350,000
45	Colockum HQ Renovations	$350,000
46	Colockum WLA - Quilomene Stock Fence	$750,000
47	Colockum WLA - Repairs to Little Brushy Creek Crossing	$500,000
48	Colockum WLA Boundary Fence, Game Reserve	$300,000
49	Colockum WLA HQ Spring/Irrigation System Upgrade	$250,000
50	Columbia Basin Hatchery - Pave Entrance and parking lot	$225,000
51	Columbia Basin Hatchery - Raceway Replacement	$15,508,000
52	Columbia Basin WLA - HQ Expansion (Prog)	$303,000
53	Columbia Basin WLA Desert WLA Building Removal	$75,000
54	Cooperative Elk/Deer Damage Fencing (FY25-27)	$1,400,000
55	County Line Boat Ramp Replacement	$400,000
56	Couse Creek Boat Ramp Repairs	$150,000
57	Covered Open Storage Area (Ephrata)	$250,000
58	Culvert Court Case Fish Passage Barrier Corrections	$5,224,000
59	Davis Creek - Remove asbestos and interior repairs	$80,000
60	Deep River Net Pen Upgrade	$1,500,000
61	Deer Lake Dam Repair	$450,000
62	Delameter Fishways #1 & #2 Repairs	$600,000
63	DET 11 Enforcement Building	$1,200,000
64	DET 32 Enforcement Building	$1,350,000
65	Dungeness Hatchery - Hatchery Renovation	$15,771,000
66	Dungeness Hatchery Erosion Control	$300,000
67	Dungeness Hatchery- Construct New Adult Pond	$750,000
68	Ebey Island Access Bridge	$650,000

69	Electronic Gate at South Puget Sound Wildlife Area Unit	$60,000
70	Elk Fence Maintenance	$450,000
71	Elliott Bay Fishing Pier	$15,117,000
72	Elochoman Hatchery - Facility Abandonment and Restoration	$7,216,000
73	Elochoman Weir Live Box re-build	$400,000
74	Elwha Hatchery - Power to Spawning Area	$100,000
75	Elwha Hatchery - Recondition All Wells	$375,000
76	Elwha Hatchery - Renovation	$13,167,000
77	Elwha Hatchery - Repair Asphalt Parking Lot	$400,000
78	Elwha Hatchery - Replace Residence	$634,000
79	Energy Efficiency Audits & Retrofits	$500,000
80	Fallert Creek Hatchery - Replace Intakes, Ponds and Pollution Abatement Pond	$22,114,000
81	FEMA 4650 - Beaver Creek Hatchery Dike Repair	$30,000
82	Fish Marking Trailer Storage	$1,500,000
83	Ford Hatchery - ADA Access	$175,000
84	Ford Hatchery - Renovate Intake, Ponds, and Outfall	$27,565,000
85	Ford Hatchery Lower Intake Walkway	$65,000
86	Ford Residences Water in Basements	$215,000
87	Forks Creek Hatchery - Raceway Replacement and Supply Pipeline	$6,428,000
88	Forks Creek Hatchery Siphon Intake Renovation - Phase 5	$5,743,000
89	Gardiner access redevelopment	$150,000
90	George Adams Hatchery - Replace Adult Ponds and Raceways	$13,679,000
91	Goldendale Hatchery - Remodel RAS	$14,743,000
92	Goldendale Hatchery - Replace Raceway & Pipeline and Improve Rearing Capacity	$6,193,000
93	Grays River Hatchery Access Rd Slide Repairs	$650,000
94	Green Dot Roads Improvement	$1,000,000
95	Hand Access Ramp	$480,000
96	Heart Access Ramp	$300,000
97	Hoffstadt Hills Land Acquisition	$12,000,000
98	Hoodsport Hatchery Pond 14 Replacement	$1,438,000
99	Hoodsport Hatchery Renovate Intake	$6,736,000
100	Humptulips Hatchery - Repair Water Supply Line	$400,000
101	Humptulips Hatchery - Replace Ponds and Pipeline	$15,296,000
102	Humptulips Hatchery - Replace River Intake Pumps	$500,000
103	Humptulips Solar	$7,376,000

104	Hupp Springs Hatchery Renovate Intake Diversion	$300,000
105	Hurd Creek Hatchery- Additional Residence	$800,000
106	Indian George Access Redevelopment	$400,000
107	Issaquah Hatchery Darigold water system rebuild	$217,000
108	Issaquah Hatchery Gravity Pipeline Replacement	$2,737,000
109	Issaquah Hatchery Viewing Platform	$100,000
110	Kalama Falls Adult Return Tube	$580,000
111	Kalama Falls Hatchery - Renovate Fish Passage Barrier	$200,000
112	Kalama Falls Hatchery - Renovate Intakes	$150,000
113	Kalama Hatchery - Replace Sand Filters	$500,000
114	Kalama Hatchery Building Main Beam	$310,000
115	Kendall Creek Hatchery - Raceway Replacement (9 series)	$750,000
116	Kendall Creek Hatchery - Relocate Entrance	$550,000
117	Kendall Creek Hatchery - Replace Gravity and Pumped Intakes	$12,723,000
118	Kendall Creek Hatchery - Replace PA Pond	$750,000
119	Kendall Creek Hatchery - Replace Water Distribution Tower and Pipeline	$500,000
120	Kendall Creek Hatchery Well Redevelopment	$350,000
121	Klickitat WLA Simcoe Unit RMAP	$550,000
122	Lacey Shop - Electrical Replacement & Upgrade	$125,000
123	Lacey Shop - Energy Efficiency Upgrades	$75,000
124	Lacey Shop - Equipment Wash Rack Improvements	$75,000
125	Lacey Shop - Fabrication Shop Roof & Gutter Replacement	$170,000
126	Lacey Shop - Pump Shop Crane System	$181,500
127	Lacey Shop - Siding Replacement	$300,000
128	Lacey Shop Asphalt Repair	$400,000
129	Lake Aberdeen Hatchery - Replace Storage Shed	$100,000
130	Lake Aberdeen Replace T-Dock	$160,000
131	Lake Terrell Office Renovation	$200,000
132	Lakewood-Spring Water Aeration System	$100,000
133	Lathrop Road Compound - Covered Storage for Fish Program Boats	$1,603,000
134	Lathrop Road Compound - Covered Storage for RVs and Boat	$203,000
135	LT Murray WLA - Watt Covered Hay Storage	$150,000
136	LT Murray WLA- Yakima River Unit Cole Creek Bridge Repair	$500,000
137	Marblemount Hatchery - Renovation	$35,947,000
138	Marblemount Hatchery Bird Netting	$75,000
139	Mayr Brothers Hatchery - Replace Intake and Renovate Fishway	$2,573,000

140	Mckernan Hatchery Incubation Drain Line	$300,000
141	McKernan Hatchery Renovate Adult Pond	$5,987,000
142	Methow WLA - Repair HQ Office	$150,000
143	Methow WLA Fencing	$500,000
144	Mima Creek Unit Parking Lot Development	$350,000
145	Minter Creek - Replace Lower Intake	$3,000,000
146	Mossyrock Hatchery - Construct Additional Intake	$720,000
147	Mossyrock Hatchery - Replace Ponds	$1,000,000
148	Mt St Helens WLA - Alder Creek Stream Restoration	$140,000
149	Naches Hatchery - Roof Repairs	$45,000
150	Naches Hatchery - Water Supply Development	$1,500,000
151	Naches Hatchery Infiltration Gallery	$997,000
152	Naselle Hatchery Residence Siding Replacement (x3)	$375,000
153	Nemah Hatchery - Bridge Replacement	$3,756,000
154	Nemah Hatchery - Facility Upgrade	$15,814,000
155	Nemah Hatchery Pipeline Replacement	$715,000
156	Nemah Hatchery Weir Replacement	$2,281,000
157	Nisqually Unit/Luhr's Landing Facility Repairs	$1,500,000
158	Nisqually WLA Steps Assessment	$25,000
159	North Toutle Hatchery - Renovation	$36,003,000
160	Nunnally Lake Access Improvement	$350,000
161	Oak Creek WLA - Cowiche Haybarn and Feed site Access Road Improvements	$1,000,000
162	Oak Creek WLA - Cowiche Mill Rd Elk Cattle Guard Installation	$300,000
163	Oak Creek WLA - Shop Replacement	$300,000
164	Oak Creek WLA - Upgrades to Cowiche Road and Bridge	$700,000
165	Oak Creek WLA - Visitor Center and Viewing Area Improvement	$300,000
166	Okanogan Irrigation	$650,000
167	Olympia Tumwater Foundation Visitor Center	$2,500,000
168	Omak Hatchery Storage Building	$750,000
169	ONIEDA ACCESS AREA BOAT RAMP REPAIR	$300,000
170	Provide Electrical Power to Goldendale Office Space	$40,000
171	PSAW and grant	$6,000,000
172	Quincy Lake Access Ramp	$300,000
173	Quincy Lakes Trails Work	$100,000
174	R4 Gate Installation	$250,000
175	Reg 6 HQ Storage- pole building	$900,000

176	Region 1 HQ Phase 3 Construct Secure Warehouse and Parking Compound	$11,256,000
177	Region 3 Elk Control Fencing Replacement	$1,400,000
178	Region 3 Elk Fence	$3,000,000
179	Region 4 Water Access Shop/Storage	$500,000
180	Region 6 Warehouse	$600,000
181	Region 6 Warehouses Insulation	$22,000
182	Reiter Ponds Hatchery - Replace Intake and Piping	$1,848,000
183	Reiter Ponds Hatchery Residence and Storage	$998,000
184	Reiter Ponds New Residence	$800,000
185	Reiter Ponds PRAS Drain line and Generator	$1,500,000
186	Revere Wildlife Area Irrigation Renovation	$200,000
187	Sacheen Lakes - Access Site Paving	$270,000
188	Samish Hatchery - Incubation Room Replacement	$350,000
189	Samish Hatchery - Security Gate	$50,000
190	Samish Unit - Replace Equipment Storage Barn	$500,000
191	Scatter Creek WLA - Culvert and Gate Replacement on Port Blakely Road	$95,000
192	Seep Lakes Road Reconstruction	$1,400,000
193	Sherman Creek WLA Replace Diversion	$250,000
194	Shipherd Falls Fishway Access	$300,000
195	Silver Lake Ramp and Dock Replacement	$500,000
196	Sinlahekin Creek WLA Replace Diversion	$300,000
197	Sinlahekin WLA Trails Renovation	$250,000
198	Skagit WLA - Big Ditch Water Access Site Redevelopment	$400,000
199	Skagit WLA - Repairs to Dike and Drainage (FY23-25)	$250,000
200	Skagit WLA - Shop Renovation	$500,000
201	Skamania Hatchery - Renov Adult Trapping, Holding and Spawning Facilities	$5,479,000
202	Sol Duc Hatchery - Ponds Renovation	$13,869,000
203	Sol Duc Pump Weir and Intake	$12,899,000
204	Soos Creek Hatchery Fence replacement	$250,000
205	South Lake Whatcom - Intake Modification	$700,000
206	South Puget Sound WLA - Boundary Security Fence Improvements	$750,000
207	South Puget Sound WLA Unit - Secure Compound w/ Covered Storage and Workshop	$750,000
208	South Puget Sound WLA – Facility Upgrades and Repairs	$250,000
209	Southern Resident Killer Whale Master Plan, Phase 2	$250,000
210	Spud Houseboat Ramp	$500,000

211	SRKW - Bogachiel Hatchery Expansion	$14,079,000
212	SRKW - Coulter Creek Hatchery Expansion	$4,025,000
213	SRKW - Dungeness Hatchery Expansion	$21,363,000
214	SRKW - Elwha Hatchery Expansion	$10,845,000
215	SRKW - Humptulips Hatchery Renovation	$15,017,000
216	SRKW - Hupp Springs Hatchery Expansion	$9,515,000
217	SRKW - Lyons Ferry Hatchery Expansion	$23,643,000
218	SRKW - Marblemount Hatchery Expansion	$11,444,000
219	SRKW - McKernan Hatchery Expansion	$4,863,000
220	SRKW - Naselle Hatchery Expansion	$11,954,000
221	SRKW - Nemah Hatchery Expansion	$9,056,000
222	SRKW - Puyallup Hatchery Expansion	$5,985,000
223	SRKW - Samish Hatchery Expansion and Adult Pond Renovation	$11,716,000
224	SRKW - Whitehorse Hatchery Expansion	$10,446,000
225	SRKW Palmer Ponds Expansion Phase 2	$12,525,000
226	Statewide ADA Improvements (FY25-27)	$500,000
227	Statewide Bridge Safety Repairs	$525,000
228	Statewide Building Demolition	$600,000
229	Statewide Building Repairs (nonhatchery) (FY25-27)	$750,000
230	Statewide Culverts	$750,000
231	Statewide Dam Safety Repairs (FY25-27)	$500,000
232	Statewide Electrical and Standby Generator (FY25-27)	$750,000
233	Statewide Equipment Storage Building Replacement	$500,000
234	Statewide EV Charging Stations (FY25-27)	$500,000
235	Statewide Exterior Building Repairs	$300,000
236	Statewide Facilities - Install Energy Efficient Exterior Lighting	$250,000
237	Statewide Facility Paving Repairs	$500,000
238	Statewide Facility Repairs	$500,000
239	Statewide Facility Safety Deficiencies (FY25-27)	$1,200,000
240	Statewide Fish Culture Improvements (FY25-27)	$900,000
241	Statewide Fishway Repairs (FY25-27)	$500,000
242	Statewide General Energy Efficiency Improvements (FY25-27)	$750,000
243	Statewide Hatcheries - Asphalt Pond Repairs	$800,000
244	Statewide Hatcheries - Building Replacements	$400,000
245	Statewide Hatcheries - Domestic Water Systems & Piping	$600,000
246	Statewide Hatcheries - General Energy Efficiency Improvements	$300,000

247	Statewide Hatcheries - Roof Repair/Replace	$600,000
248	Statewide Hatcheries Building Repairs	$500,000
249	Statewide Hatcheries Chemical Storage and Delivery Systems	$900,000
250	Statewide Hatcheries Intake and Water Supply (FY25-27)	$500,000
251	Statewide Hatcheries Intake/Outfall Safety Modifications	$500,000
252	Statewide Hatcheries Predator Prevention Measures (FY25-27)	$400,000
253	Statewide Hatcheries Residence Repairs (FY25-27)	$500,000
254	Statewide Hatcheries Residence Replacements (FY25-27)	$900,000
255	Statewide Hatchery Access & Onsite Road Upgrade	$500,000
256	Statewide Hatchery Electrical Service Improvements (FY25-27)	$450,000
257	Statewide Irrigation	$500,000
258	Statewide Network Rebuild	$600,000
259	Statewide Parking	$750,000
260	Statewide Pumps and Alarms (FY25-27)	$850,000
261	Statewide Road Rebuild	$750,000
262	Statewide Roof Replacement	$300,000
263	Statewide Signage and Interpretive Signs	$300,000
264	Statewide Solar and Microhydro System Installations	$500,000
265	Statewide Toilet Replacement (FY25-27)	$750,000
266	Statewide Underground Storage Tank Remediation	$300,000
267	Statewide Wildlife Area Fencing	$1,250,000
268	Statewide Wildlife Facilities	$750,000
269	Stinson Flats Access Site - Rebuild Boat Ramp	$550,000
270	Sunnyside Snake River WLA- Windmill Unit HQ Building/Shop	$850,000
271	Swofford Recreational Enhancements	$971,080
272	Tokul Creek Hatchery - Replace Raceway, Water Supply, Drains	$8,040,000
273	Tumwater Falls Hatchery-Intake Structure-SAFETY	$232,000
274	Union River Boardwalk	$1,500,000
275	Union River WLA – Theler Wetlands Parking Lot Development	$588,000
276	Upgrade and replace Deep River Net Pens	$2,000,000
277	Upper Indian Creek Fish Screen Removal	$136,000
278	Vancouver Hatchery - Repair Pond 13	$400,000
279	Vernita campground	$1,102,250
280	Voights Creek Intake-Cleaning System Replacement	$650,000
281	Voights-Building PRAS system	$2,500,000
282	Voights-Plumb well into Hatchery/Tower/Electrical/Generator	$100,000

283	Wallace River Hatchery Well and Tower	$750,000
284	Wallace River UV Installation On PRAS	$50,000
285	Washougal H Building Lighting-FSD	$50,000
286	Washougal Hatchery - Rehab Adult Handling Facility	$6,402,000
287	Washougal Hatchery - Replace Raceways and Pipeline	$14,274,000
288	Washougal Micro Hydro	$2,437,000
289	Wenas WLA Shop enhancements/additional enclosed buildings	$1,000,000
290	West Fork Teanaway River Collaborative Restoration Project in Teanaway Community Forest	$275,000
291	West Medical Lake Access Redevelopment	$800,000
292	Western WA Coastal Lab Facility	$2,944,000
293	Whatcom Wildlife Area Covered Storage	$400,000
294	Whatcom WLA Lake Terrell Unit - Pheasant Pen Repairs	$250,000
295	White Bridge Ramp Repair	$477,000
296	Whitehorse Hatchery - Replace Vault Toilet	$65,000
297	Whitehorse Rearing Ponds Culvert Replacement	$313,000
298	Whitehorse Rearing Ponds Lining	$100,000
299	Willapa Bay Lab - Replace Pump House	$50,000
300	Windmill Access Ramp	$300,000
301	Wooten Wildlife Area - Improve Flood Plain	$6,492,000
302	Wooten WLA - Construct Pole Building	$300,000
303	WSRRI Restoration Program	$15,000,000
304	Yakima Enforcement Building	$815,000
305	Yakima Shop - Covered Storage Building & Asphalt	$550,000
306	Yakima Shop - Heating Sys & Repaint Exterior w/repair	$150,000
307	Yakima Shop Building Renovation	$600,000
308	Yakima Shop Yard Parking/Staging Area Improvements	$600,000

TAB B – All Preservation Projects

Project Number: **30000826**
Project Title: **Snow Creek Reconstruct Facility**

Description

Starting Fiscal Year: 2026
Project Class: Preservation (State-Owned)
Agency Priority: 1

Project Summary

This major project involves reconstruction of the Snow Creek Resort, near Neah Bay and includes rebuilding the RV park, tent camping areas, water system, on-site sanitary sewer system, restrooms, boat launch, launch and mooring floats, mooring buoys, office and truck and trailer parking. The property was purchased using a grant which stipulates the property must be used to provide a boat launch. Reconstruction of the resort will restore the property to its historic use and provide the required boat launch and sanitary amenities. There is a need to complete the building demo work ahead of them being replaced to avoid vacant buildings being accessed and vandalized. A budget request for 25-27 was not requested because the project is awaiting permits and WDFW was timing the construction work in partnership with a WSDOT project at the same location. It was originally planned that remaining demolition work would take place at time of construction in 27-29. However, more recently than the last capital budget request, the restroom facility was vandalized, the locked and secured building was reopened and has since been deemed a safety hazard. WDFW Enforcement is recommending removal, to minimize illegal behaviors. Rather than wait until full construction in 2027, we are requesting $220,000 for WDFW construction crews to demolish the existing bathroom/shower facility, associated septic, and make the site safe for the public.

Project Description

1. Identify the problem or opportunity addressed. Why is this request a priority?

To quote from the 2020 Pre-design report, “The WDFW mission statement is to protect and perpetuate fish, wildlife and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities. Snow Creek Resort redevelopment supports this mission by providing greater opportunity through a developed area for users to launch boats and access the Straits of Juan De Fuca, allowing fishing and wildlife viewing. Redevelopment of this access for camping and boat and kayak launching in this area near the entrance to Puget Sound allows users to avoid disturbance of the ecosystem along many local, easily accessible beaches, protecting ecologically important lands, addressing factors influencing Puget Sound Ecosystem Health, identified in Results Washington.

As a condition of the 1978 Land and Water Conservation Grant WDFW used for the purchase of the property, the site must provide a boat launch, or another property and launch must be provided in its place. Included in the contract language is, “RCW 43.99.100, Marine recreational land with respect to which money has been expended under RCW 43.99.080 shall not, without the approval of the committee, be converted to other uses other than those for which such expenditures were originally approved. The committee shall only approve any such conversion upon conditions which will assure the substitution of other marine recreation land of at least equal fair market value at the time of conversion and of as nearly as feasible equivalent usefulness and location.”

The existing launch is in a state of disrepair and not operational and has been closed since 2017. Without redevelopment, this requirement remains unfulfilled. No other suitable properties appear available in the area. Redevelopment, including a boat launch, would bring the State in compliance with the grant conditions and provide greater opportunities to access fish and wildlife in accordance with WDFW’s mission statement.”

Finally, the Snow Creek Resort is the only publicly owned boat launch access site within Marine Area 4, except for the newly acquired Sekiu boat ramp which is currently undergoing upgrades associated with acquisition.

This 2026 supplemental request will allow us to remove attractive nuisance structures and peripheral garbage so that the site may be opened for hand launch and other recreational opportunities until such time construction can occur.

2. What will the request produce or construct?

The 25-27 biennium request will restore the RV park, tent camping areas, water system, septic system, restrooms, boat launch, launch and mooring floats, mooring buoys and an office location.

3. How would the request address the problem or opportunity identified in question 2?

From the 2020 Pre-design Report, “Without reconstruction the site will not be able to support camping in any form, motorized boat launching, or restrooms. Regional, peak-season user capacity would be reduced, eliminating camping, and limiting fishing and wildlife viewing opportunities, contrary to WDFW’s mission. The upper site would remain closed and the lower site would

Description

remain gated, with limited roadside parking and no restroom facilities."
Maintenance costs would increase in the coming years to address safety issues and demolition. The consequences of selecting the “No Action” alternative, to public service delivery, include restriction of the number of visitors to the site and severe limitation of water access. This site was previously a bustling hub of camping, boating and wildlife watching activity but currently only affords space for two vehicles to park in front of the lower gate.
No action includes elimination of the recent historic use of the site for motorboat access, including launching and mooring. Boating is limited to hand-carrying small boats such as kayaks, several hundred feet to the water’s edge, discouraging most users from making the effort. Taking no action also increases the difficulty for divers, requiring them to carry heavy dive equipment to the water. This severely limits what was historically a tremendous opportunity for divers to explore and view and catch rockfish and lingcod around nearby Seal and Sail rock. It also virtually eliminates power boat use, denying anglers access to excellent local salmon, halibut, rockfish and lingcod fishing in the Straits. The purchase agreement for this property requires the State to install a boat launch, which will not be satisfied without redevelopment unless another property is purchased.
The No Action alternative also negatively impacts the economies of local communities. Supplies necessary for recreation such as fuel, groceries, vehicle, RV, trailer and boat parts, life jackets, licenses, fishing gear, nets, bait, ice, firewood, fish smoking and processing supplies, etc. are not available on-site. Lost gear and forgotten supplies are always a challenge in remote locations. Access, supply and resupply require users to travel to nearby towns, the closest of which are, Neah Bay, three miles to the west, and Sekiu,14 miles to the east. The larger number of Snow Creek visitors who would have been drawn to local hotels, restaurants, coffee stands, phone service areas, postal service, coastal beaches, cultural attractions and events, will not be frequenting these places, eliminating potential income for local businesses. Finally, during peak seasons, the maximum visitor carrying capacity of the region is reduced without redevelopment of the Snow Creek Facility.”

4. What alternatives were explored?
All options are discussed in detail in the 2020 Pre-design Report, summary follows. “WDFW assessed three options for site redevelopment and a no-build option. Option 1 is preferred and would include full redevelopment of the access, including boat launch, floats, mooring, mooring buoys, RV and tent camping, water and sewer systems, restrooms, parking and a caretaker and fee collection, which would help cover maintenance costs. Option 2, without the full-time presence of a caretaker, would support a self-launch boat ramp and minimal loading floats to be seasonally removed, along with gravel parking and vault toilets. This lesser alternative would not require fees, nor would it support running water or camping, much like a typical WDFW access site. Maintenance costs would become the obligation of WDFW. Option 3, a self-launch boat ramp with no floats, would allow the similar upland site configuration but elimination of the seasonal contractor required for float installation and winter storage. Maintenance costs would become the obligation of WDFW. Option 4, the No-Action Option, would be not to build anything and leave the site as-is.”

5. Which clientele would be impacted by the budget request?
Buildings added would include a vault toilet, restrooms with showers and an office for a vendor. The existing site has parking for two vehicles in front of a closed gate and currently allows access to between 2-12 people with no sanitary facilities. Boating access is limited to hand-carried boats. Moving forward with the preferred alternative would allow the site to serve up to 138 people per day and would provide a boat launch for motorized boats. The site is a destination location, serving residents in communities across the State and beyond and would support the local communities of Neah Bay and Sekiu with some economic impacts to Forks and Port Angeles.

6. Does this project leverage non-state funding?
Per the 2020 Pre-design Report, “The possibility exists of partial RCO funding up to $1M through the competitive grant process for a Boating Facilities Grant. Only portions of the property that are exclusive to boating use would qualify for this grant. Camping amenities would not be funded. This would require a capital match to complete the project.”

7. Describe how this project supports the agency’s strategic master plan or how would it improve agency performance.

Description

This project is consistent with the Agency's Strategic Master Plan in that it provides public access for fishing and wildlife viewing in accordance with the WDFW mission statement.

8. Does this decision package include funding for any Information Technology related costs including hardware, software (to include cloud-based services), contracts or staff?
No.

9. Is this project linked to Puget Sound Partnership's "Puget Sound Action Agenda"?
No.

10. How does this project contribute to meeting the greenhouse gas emissions limits established in RCW 70A.45.050, clean buildings performance standards in RCW 19.27A.210, or other statewide goals to reduce carbon pollution and/or improve energy efficiency?
There would be little energy use on-site. Per the 2020 Pre-design Report, "Building designs will be designed to be zero energy or zero-energy capable and include consideration of net-embodied carbon. If cost effective zero-energy buildings are not technically feasible, buildings will be designed to exceed the current state building code for energy efficiency to the greatest extent possible, per Executive Order 18-01-1(b), New Facility Construction.

11. How is this project impacting equity in the state?
It is expected that there are few, if any, disproportionate impacts from this proposal. However, if this proposal does not receive funding, there could be disproportionate impacts to those who rely on access to fisheries for their subsistence, economic welfare, and recreation.
Rural and geographically isolated communities in Washington will significantly benefit from the economic opportunities of recreational fishing to contribute significant revenue to rural businesses.

12. Is this project eligible for Direct Pay?
No

13. Will the project increase or decrease annual operating costs?
It is estimated to increase annual operating and maintenance costs $75,00 per year.

14. Is there additional information you would like decision makers to know when evaluating this request?
No

15. If the project was originally funded prior to the 2021-23 biennium, describe the project and each subproject, including the original appropriation year, status of the project and an explanation why a reappropriation is needed.
Originally a feasibility study was funded in 17-19 to review permitting requirements, tribal consultation, and assess the structural integrity of the infrastructure. In 19-21 a pre-design report was completed with the preferred option selected. In 21-23 the project received design funding. Design was completed in 2025.

16. If the project is linked to the Governor's Salmon Strategy provide an explanation of how the budget request relates to a salmon strategy action, is urgent in the coming biennium to advance salmon recovery, is aligned with a federally approved salmon recovery plan, and/or advances a known tribal priority.
N/A

OFM

477 - Department of Fish and Wildlife
Capital Project Request
2025-27 Biennium

*

Version: DH WDFW 2026 Supplemental Request

Report Number: CBS002
Date Run: 9/23/2025 4:12PM

Project Number: 30000826
Project Title: Snow Creek Reconstruct Facility

Description

Location
City: Unincorporated **County:** Clallam **Legislative District:** 024

Project Type
Preservation - Unidentified

Growth Management impacts
The Department is renovating an existing asset and does not expect impact to growth management.

Funding

Acct Code	Account Title	Estimated Total	Expenditures Prior Biennium	Current Biennium	2025-27 Fiscal Period Reapprops	New Approps
057-1	State Bldg Constr-State	8,097,000		1,000		220,000
	Total	**8,097,000**	**0**	**1,000**	**0**	**220,000**

Acct Code	Account Title	Future Fiscal Periods 2027-29	2029-31	2031-33	2033-35
057-1	State Bldg Constr-State	6,896,000	980,000		
	Total	**6,896,000**	**980,000**	**0**	**0**

Operating Impacts

Total one time start up and ongoing operating costs

Acct Code	Account Title	FY 2028	FY 2029	FY 2030	FY 2031	FY 2032
FTE	Full Time Employee	1.0	1.0	1.0	1.0	1.0
001-1	General Fund-State	75,000	75,000	75,000	75,000	75,000
	Total	**75,000**	**75,000**	**75,000**	**75,000**	**75,000**

Narrative
It is estimated to increase annual operating and maintenance costs $75,00 per year.

OFM

Capital Project Request

2025-27 Biennium

*

Parameter	Entered As	Interpreted As
Biennium	2025-27	2025-27
Agency	477	477
Version	DH-A	DH-A
Project Classification	*	All Project Classifications
Capital Project Number	30000826	30000826
Sort Order	Project Priority	Priority
Include Page Numbers	Y	Yes
For Word or Excel	N	N
User Group	Agency Budget	Agency Budget
User Id	*	All User Ids

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2025

Agency	Washington Deaprtment of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Contact Information	
Name	Donald C Ponder
Phone Number	(1360) 902-2547
Email	Donald.Ponder@dfw.wa.gov

Statistics			
Gross Square Feet		MACC per Gross Square Foot	
Usable Square Feet		Escalated MACC per Gross Square Foot	
Alt Gross Unit of Measure			
Space Efficiency		A/E Fee Class	B
Construction Type	Other Sch. B Projects	A/E Fee Percentage	8.98%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Procurement Approach	DBB	Art Requirement Applies	No
Inflation Rate	3.16%	Higher Ed Institution	No
Sales Tax Rate %	8.60%	Location Used for Tax Rate	Sekiu
Contingency Rate	5%		
Base Month (Estimate Date)	September-24	OFM UFI# (from FPMT, if available)	
Project Administered By	Agency		

Schedule			
Predesign Start	July-19	Predesign End	June-20
Design Start	July-23	Design End	July-25
Construction Start	July-27	Construction End	June-29
Construction Duration	24 Months		

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Project Cost Summary

Total Project	$8,470,334	Total Project Escalated	$9,232,460
		Rounded Escalated Total	$9,232,000

Amount funded in Prior Biennia	**$1,136,000**
Amount in current Biennium	**$220,000**
Next Biennium	**$6,896,000**
Out Years	**$980,000**

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$150,000		
Design Phase Services	$397,843		
Extra Services	$274,000		
Other Services	$178,741		
Design Services Contingency	$50,029		
Consultant Services Subtotal	**$1,050,613**	**Consultant Services Subtotal Escalated**	**$1,079,141**

Construction			
Maximum Allowable Construction Cost (MACC)	$6,115,000	Maximum Allowable Construction Cost (MACC) Escalated	$6,701,073
DBB Risk Contingencies	$0		
DBB Management	$0		
Owner Construction Contingency	$305,750		$343,878
Non-Taxable Items	$0		$0
Sales Tax	$552,185	Sales Tax Escalated	$605,866
Construction Subtotal	**$6,972,935**	**Construction Subtotal Escalated**	**$7,650,817**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$446,787		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$446,787**	**Project Administration Subtotal Escalated**	**$502,502**

Other Costs			
Other Costs Subtotal	**$0**	**Other Costs Subtotal Escalated**	**$0**

Project Cost Estimate

Total Project	**$8,470,334**	Total Project Escalated	**$9,232,460**
		Rounded Escalated Total	**$9,232,000**

Funding Summary

	Project Cost (Escalated)	Funded in Prior Biennia	Current Biennium 2025-2027	2027-2029	Out Years
Acquisition					
Acquisition Subtotal	$0				**$0**
Consultant Services					
Consultant Services Subtotal	$1,079,141	$1,077,029			**$2,112**
Construction					
Construction Subtotal	$7,650,817		$220,000	$6,623,000	**$807,817**
Equipment					
Equipment Subtotal	$0				**$0**
Artwork					
Artwork Subtotal	$0				**$0**
Agency Project Administration					
Project Administration Subtotal	$502,502	$59,200		$273,000	**$170,302**
Other Costs					
Other Costs Subtotal	$0				**$0**
Project Cost Estimate					
Total Project	**$9,232,460**	**$1,136,229**	**$220,000**	**$6,896,000**	**$980,231**
	$9,232,000	**$1,136,000**	**$220,000**	**$6,896,000**	**$980,000**
Percentage requested as a new appropriation			**2%**		

What is planned for the requested new appropriation? (*Ex. Acquisition and design, phase 1 construction, etc.*)
Complete demolition that was not accomplished in previous biennium to clean up the site for public safety.
Insert Row Here

What has been completed or is underway with a previous appropriation?
Design is complete, demolition is needed.
Insert Row Here

What is planned with a future appropriation?
Full construction of the site.
Insert Row Here

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition					
Pre-Site Development					
Other					
Insert Row Here					
ACQUISITION TOTAL	**$0**		**NA**	**$0**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study	$150,000			
Other				
Insert Row Here				
Sub TOTAL	**$150,000**	**1.0000**	**$150,000**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$397,843			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$397,843**	**1.0000**	**$397,843**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)	$50,000			
Geotechnical Investigation	$50,000			
Commissioning				
Site Survey	$50,000			
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant				
Wind Wave Design	$124,000			
Insert Row Here				
Sub TOTAL	**$274,000**	**1.0000**	**$274,000**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$178,741			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$178,741**	**1.1247**	**$201,030**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$50,029			
Other				
Insert Row Here				
Sub TOTAL	**$50,029**	**1.1247**	**$56,268**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$1,050,613**		**$1,079,141**	

Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$220,000			
G20 - Site Improvements	$500,000			
G30 - Site Mechanical Utilities	$150,000			
G40 - Site Electrical Utilities	$175,000			
G60 - Other Site Construction	$1,250,000			
Other	$1,300,000			
Insert Row Here	$1,000,000			
Sub TOTAL	**$4,595,000**	**1.0902**	**$5,009,469**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention	$300,000			
Other				
Demolition	$220,000			
Sub TOTAL	**$520,000**	**1.0902**	**$566,904**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems				
F10 - Special Construction	$500,000			
F20 - Selective Demolition	$250,000			
General Conditions	$100,000			
Intake	$150,000			
Sub TOTAL	**$1,000,000**	**1.1247**	**$1,124,700**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$6,115,000**		**$6,701,073**	
	NA		*NA per 0*	

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7) Owner Construction Contingency				
Allowance for Change Orders	$305,750			
Other				
Insert Row Here				
Sub TOTAL	**$305,750**	**1.1247**	**$343,878**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.1247**	**$0**	
9) Sales Tax				
Sub TOTAL	**$552,185**		**$605,866**	
CONSTRUCTION CONTRACTS TOTAL	**$6,972,935**		**$7,650,817**	

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Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Equipment					
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.1247**	**$0**	
2) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.1247**	**$0**	
3) Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

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Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Artwork					
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$0				0.5% of total project cost for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

Green cells must be filled in by user

Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
1) Agency Project Management					
Agency Project Management	$446,787				
Additional Services					
Other					
Insert Row Here					
Subtotal of Other	*$0*				
PROJECT MANAGEMENT TOTAL	**$446,787**		**1.1247**	**$502,502**	

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Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs					
Hazardous Material Remediation/Removal					
Historic and Archeological Mitigation					
Other					
Insert Row Here					
OTHER COSTS TOTAL	**$0**		**1.0902**	**$0**	

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C-100 (2026)
Additional Notes

Tab A. Acquisition
Insert Row Here

Tab B. Consultant Services
Insert Row Here

Tab C. Construction Contracts
Insert Row Here

Tab D. Equipment
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
Insert Row Here

Current Condition

All RV camp site utility hookups to be removed on entire site

Remove concrete bridge

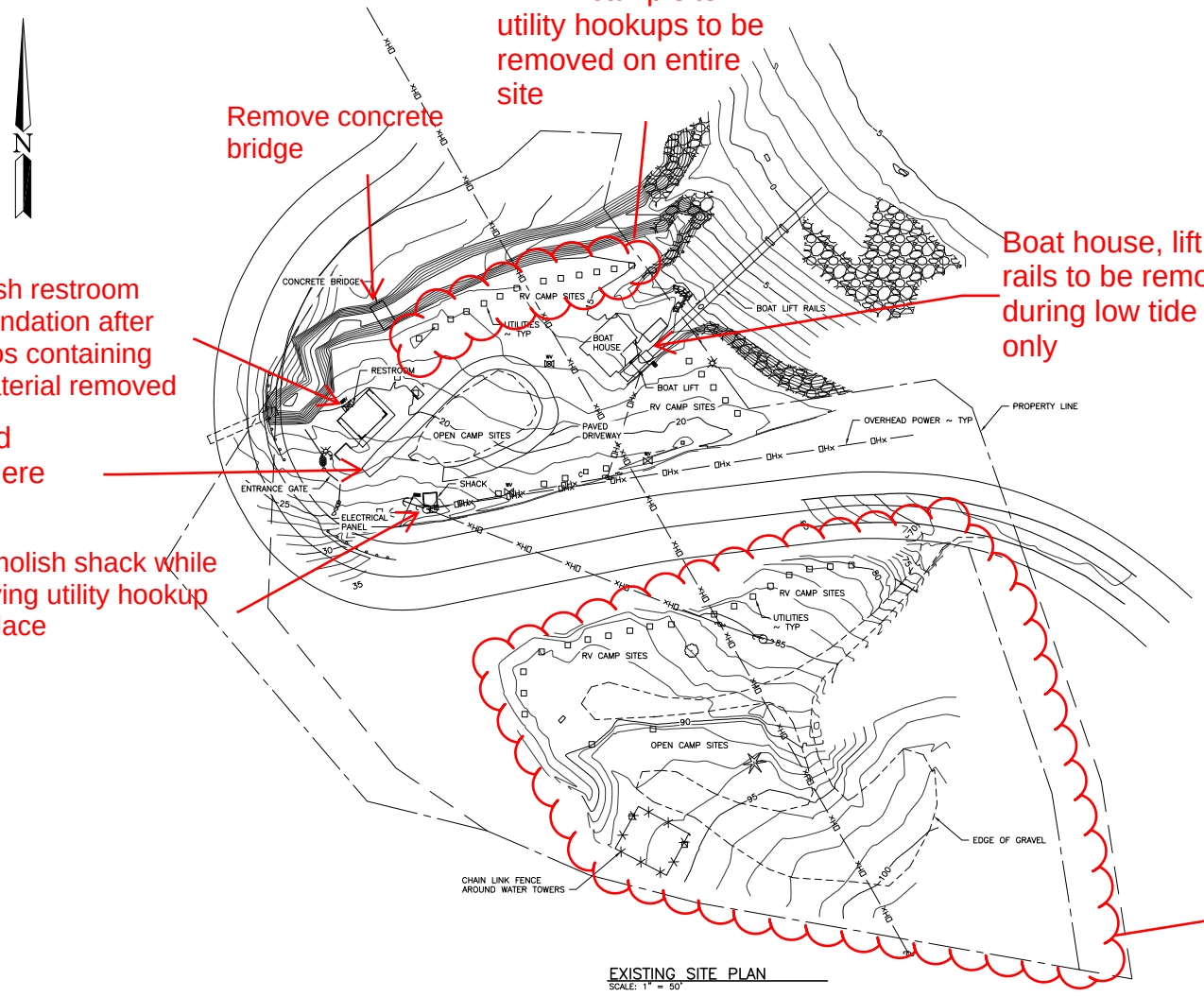
Boat house, lift and rails to be removed during low tide events only

Demolish restroom and foundation after asbestos containing roof material removed

Remove paved turnaround where present

Demolish shack while leaving utility hookup in place

Remove all accumulated trash and dumping

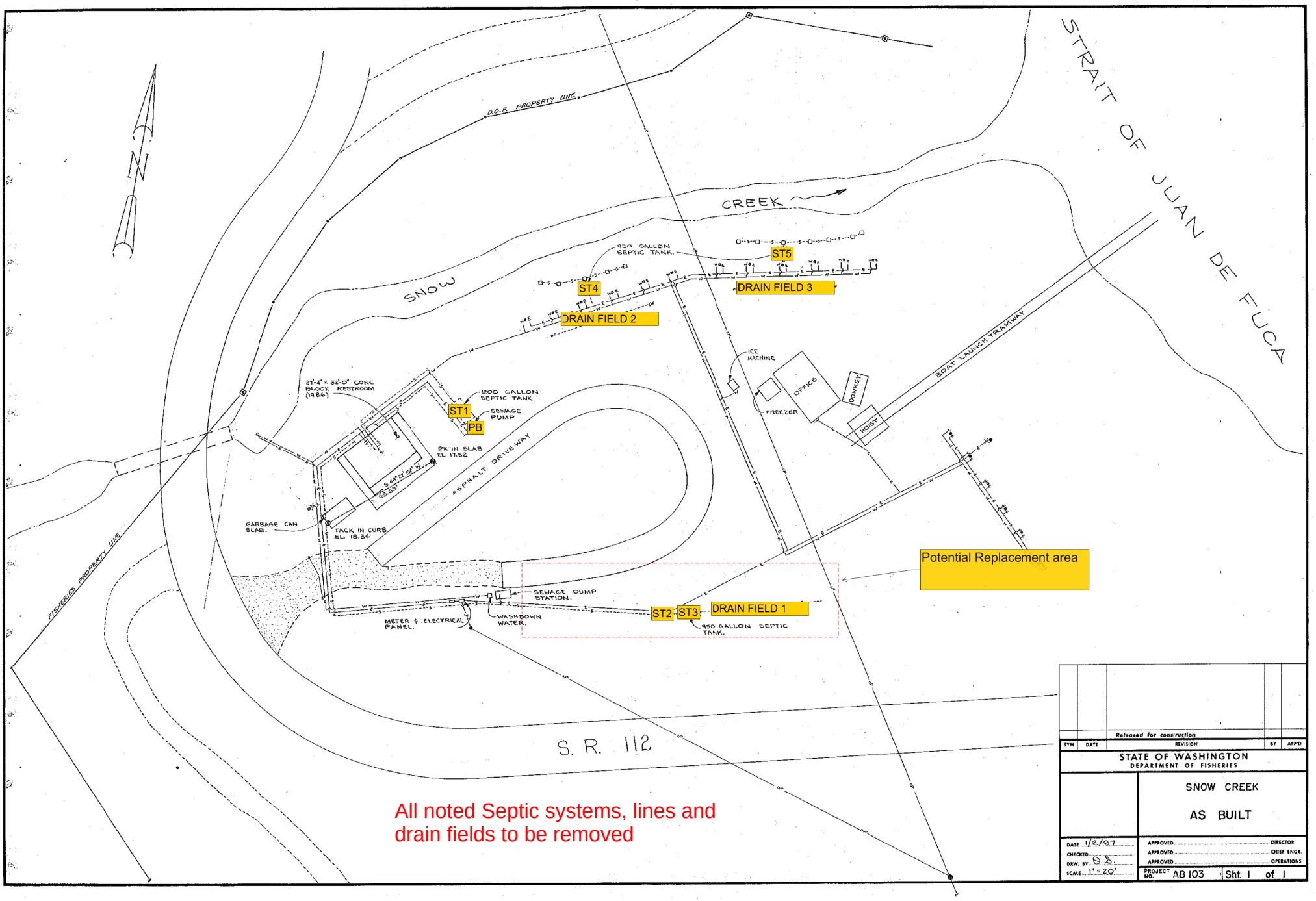


EXISTING SITE PLAN
SCALE: 1" = 50'

0 20 40 75 150
10 30 50 100
SCALE: 1" = 50'

NOT APPROVED FOR CONSTRUCTION

WASHINGTON STATE DEPARTMENT OF FISH AND WILDLIFE	SYM / DATE / PROVISION DESCRIPTION / BY; APPROVED AND RELEASED FOR CONSTRUCTION; CHIEF ENGINEER ..... DATE: ; PROGRAM ..... DATE:	0 — 1" BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS; DESIGNED BY; CHECKED BY; DRAWN BY; DATE	SNOW CREEK RESORT; EXISTING SITE PLAN	PROJECT NO.; SHEET; OF	


STRAIT OF JUAN DE FUCA
D.O.F. PROPERTY LINE
CREEK
SNOW
950 GALLON SEPTIC TANK.
ST5
ST4
DRAIN FIELD 3
DRAIN FIELD 2
ICE MACHINE
OFFICE
DONKEY
BOAT LAUNCH TRAMWAY
HOIST
FREEZER
27'-4" x 32'-0" CONC. BLOCK RESTROOM (1984)
1200 GALLON SEPTIC TANK
ST1
SEWAGE PUMP
PB
PK IN SLAB EL. 17.52
ASPHALT DRIVE WAY
GARBAGE CAN SLAB.
TACK IN CURB EL. 18.34
FISHERIES PROPERTY LINE
SEWAGE DUMP STATION.
METER & ELECTRICAL PANEL.
WASHDOWN WATER.
ST2
ST3
DRAIN FIELD 1
950 GALLON SEPTIC TANK.
Potential Replacement area
S. R. 112
All noted Septic systems, lines and drain fields to be removed
Released for construction
SYM DATE REVISION BY APP'D
STATE OF WASHINGTON
DEPARTMENT OF FISHERIES
SNOW CREEK
AS BUILT
DATE 1/2/87
CHECKED
DRW. BY D.S.
SCALE 1" = 20'
APPROVED DIRECTOR
APPROVED CHIEF ENGR.
APPROVED OPERATIONS
PROJECT NO. AB 103
Sht. 1 of 1

Snow Creek Resort Feasibility Study

PREPARED FOR OFM

Kristen Kuykendall, PE | WDFW | 9/1/2018

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Tab A
Office of Financial Management Forms

Office of Financial Management (OFM) P.O. Box 43113 Olympia, WA 98504-3113	REQUEST FORM For Approval of Economic Feasibility Study (EFS) Cost Benefit Analysis (EFS Part 2 of 2)

FORM INSTRUCTIONS

An EFS approval request consists of two parts. The first part is the Business Case form, which describes your agency's proposed project in detail. The second is the Cost Benefit Analysis (this form), which displays the dollar amounts for your proposed project.

There are four tabs (worksheets) to the Cost Benefit Analysis form. Of these four tabs, you need to enter information into three of the tabs. The tabs are color coded. Enter the data impacting your agency in the Agency tab (green tab), data impacting other state agencies (if applicable) in the Other State Agencies tab (blue tab), and data impacting your customers in the Customers tab (orange tab). Then the Summary tab (purple tab) automatically computes totals of the amounts that you entered into the other three tabs. You do not need to enter anything into the purple Summary tab.

General Instructions

- Read all of the Cost Benefit Analysis form instructions.
- Use the Cost Benefit Analysis form to summarize the revenues and costs associated with your proposed electronic payments project.
- The Cost Benefit Analysis form is required to be submitted to OFM along with the EFS Business Case form.
- The amounts entered on these tabs should support and match the amounts and assumptions included in sections 2 and 3 of the EFS Business Case form.
- The Cost Benefit Analysis form should include amounts that impact your agency, as well as, other state agencies, and the customers, as applicable.
- When you enter amounts into the Agency, Other State Agencies, and Customer tabs, formulas will automatically carry over these amounts to the Summary tab and calculate and enter grand totals for you.
- The EFS Cost Benefit Analysis form should net to a positive amount on the Summary tab.

Agency, Other State Agencies, and Customer Tabs Instructions

- Include all amounts for your proposed electronic payments project that impact your agency, other state agencies, and your customers on the appropriate tab.
- Each of these items should be described in detail in sections 2 and 3 of the EFS Business Case form.
- Enter your agency's name and the project title on the Agency tab only. This information will be entered automatically on all other tabs.
- Enter only the first fiscal year (i.e. 2011) in which you intend to implement your electronic payments project on the Agency tab. The balance of the years will be entered automatically in all other columns and tabs.
- Round all dollar amounts to the nearest dollar.
- Enter all dollar amounts as positive amounts.
- Do not add rows or columns to any of these tabs. If you need to provide additional supplementary information, please include a separate sheet(s).
- Totals will be automatically computed and entered for you, and carried forward to the Summary tab.

Summary Tab Instructions

- Formulas on this tab will automatically compute and enter grand totals of the data you entered on the Agency, Other State Agencies, and Customer tabs.
- You do not need to enter anything on this tab.
- The EFS should net to a positive amount on the Summary tab.

Enter only in the gray shaded cells in which there are no formulas present.
Do not add rows or columns to this worksheet.
Round all dollar amounts to the nearest dollar.
Enter all dollar amounts as positive numbers.
For "Other -" rows with amounts, enter a description in the gray shaded box on that row.

Agency Name: Washington Department of Fish and Wildlife
Project Title: Snow Creek Resort Water Access

AGENCY IMPACT	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	
Fiscal years ending June 30,		**1**	**2**	**3**	**4**	**Total**
REVENUE						
Increased Revenues						
Revenue generated and collected from new sources	$0	$0	$0	$75,000	$141,900	$216,900
Increased collection of revenue from existing sources						$0
Increased compliance with existing laws						$0
Increased time availability of funds						$0
Other -						$0
Other -						$0
Other -						$0
Total Increased Revenues	$0	$0	$0	$75,000	$141,900	$216,900
Decreased Revenues						
Reduction in agency revenues due to redirected revenue stream						$0
Reduced fines to customers						$0
Other -						$0
Other -						$0
Other -						$0
Total Decreased Revenues	$0	$0	$0	$0	$0	$0
Total Change in Revenue	$0	$0	$0	$75,000	$141,900	$216,900
INCREASED COSTS						
One-Time Costs						
New hardware purchases (computers, etc.)						$0
New purchases of payment processing terminals						$0
New equipment purchases (furniture, fixtures, etc.)						$0
New software licensing						$0
Programming costs						$0
Other development costs (payroll and benefits, service contracts, etc.)						$0
Reporting costs						$0
Marketing costs						$0
Training costs						$0
Setup and testing costs						$0
Installation of new or added phone lines, or other infrastructure						$0
Payments Card Industry (PCI) compliance						$0
Consulting fees						$0
Other - 19-21 Design, Permit, and Site Grading Capital Request ($800,000)	$400,000	$400,000				$800,000
Other - 21-23 Upland Development and Boat Ramp Capital Request (1.5M)			$750,000	$750,000		$1,500,000
Other - 23-25 Additional Floats, Mooring, Site Development Capital Request ($2.6 M)					$2,600,000	$2,600,000

On-Going Costs						
Internet hosting costs						$0
Software maintenance, renewals and updates						$0
Reporting costs						$0
Marketing costs						$0
Payments Card Industry (PCI) compliance						$0
Increased reconciliation and accounting costs						$0
Increased banking fees (credit card transaction fees, reporting fees, monthly fees, etc.)						$0
Increased staff costs						$0
Other - Site Maintenance	$0	$15,000	$50,000	$75,000	$100,000	$240,000
Other -						$0
Other -						$0
Total Increased Costs	$400,000	$415,000	$800,000	$825,000	$2,700,000	$5,140,000
DECREASED COSTS						
Reduced check and cash handling costs						$0
Reduced NSF losses and processing costs						$0
Decrease in refunds due to more accurate calculations						$0
Decrease in staff costs						$0
Reduced theft or fraud costs						$0
Other -						$0
Other -						$0
Other -						$0
Total Decreased Costs	$0	$0	$0	$0	$0	$0
NET REVENUE (COSTS)	($400,000)	($415,000)	($800,000)	($750,000)	($2,558,100)	($4,923,100)

AGENCY SUMMARY	**Year One 0**	**Year Two 1**	**Year Three 2**	**Year Four 3**	**Year Five 4**	**Total**
Total Change in Revenue	$0	$0	$0	$75,000	$141,900	$216,900
Total Increased Costs	$400,000	$415,000	$800,000	$825,000	$2,700,000	$5,140,000
Total Decreased Costs	$0	$0	$0	$0	$0	$0
NET REVENUE (COSTS)	($400,000)	($415,000)	($800,000)	($750,000)	($2,558,100)	($4,923,100)

Enter only in the gray shaded cells in which there are no formulas present.
Do not add rows or columns to this worksheet.
Round all dollar amounts to the nearest dollar.
Enter all dollar amounts as positive numbers.
For "Other -" rows with amounts, enter a description in the gray shaded box on that row.

Agency Name: Washington Department of Fish and Wildlife
Project Title: Snow Creek Resort Water Access

OTHER STATE AGENCIES IMPACT	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	
Fiscal years ending June 30,	**0**	**1**	**2**	**3**	**4**	**Total**
REVENUE						
Increased Revenues						
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Total Increased Revenues	$0	$0	$0	$0	$0	$0
Decreased Revenues						
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Total Decreased Revenues	$0	$0	$0	$0	$0	$0
Total Change in Revenue	$0	$0	$0	$0	$0	$0
INCREASED COSTS						
One-Time Costs						
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0

ECONOMIC FEASIBILITY STUDY - COST BENEFIT ANALYSIS - OTHER STATE AGENCIES' IMPACT

On-Going Costs						
Increased costs to OST for ACH fees (transaction fees, return item costs, etc.)						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Total Increased Costs	$0	$0	$0	$0	$0	$0
DECREASED COSTS						
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Total Decreased Costs	$0	$0	$0	$0	$0	$0
NET REVENUE (COSTS)	$0	$0	$0	$0	$0	$0

OTHER AGENCY SUMMARY	**Year One 0**	**Year Two 1**	**Year Three 2**	**Year Four 3**	**Year Five 4**	**Total**
Total Change in Revenue	$0	$0	$0	$0	$0	$0
Total Increased Costs	$0	$0	$0	$0	$0	$0
Total Decreased Costs	$0	$0	$0	$0	$0	$0
NET REVENUE (COSTS)	$0	$0	$0	$0	$0	$0

Enter only in the gray shaded cells in which there are no formulas present.
Do not add rows or columns to this worksheet.
Round all dollar amounts to the nearest dollar.
Enter all dollar amounts as positive numbers.
For "Other -" rows with amounts, enter a description in the gray shaded box on that row.

Agency Name: Washington Department of Fish and Wildlife
Project Title: Snow Creek Resort Water Access

CUSTOMER IMPACT	**Year One**	**Year Two**	**Year Three**	**Year Four**	**Year Five**	
Fiscal years ending June 30,	**0**	**1**	**2**	**3**	**4**	**Total**
REVENUE						
Increased Revenues						
Other -	$0	$0	$0	$0	$0	$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Total Increased Revenues	$0	$0	$0	$0	$0	$0
Decreased Revenues						
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Total Decreased Revenues	$0	$0	$0	$0	$0	$0
Total Change in Revenue	$0	$0	$0	$0	$0	$0
INCREASED COSTS						
One-Time Costs						
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0

On-Going Costs						
Increased costs for new/modified service fees						$0
Increased costs for convenience fees						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Other -						$0
Total Increased Costs	$0	$0	$0	$0	$0	$0
DECREASED COSTS						
Reduced travel time	$10,000	$10,000	$10,000	$10,000	$10,000	$50,000
Reduced wait time	$5,000	$5,000	$5,000	$5,000	$5,000	$25,000
Reduced parking costs	$2,500	$2,500	$2,500	$2,500	$2,500	$12,500
Reduced mail/postage costs						$0
Reduced late fees						$0
Other -						$0
Other -						$0
Other -						$0
Total Decreased Costs	$17,500	$17,500	$17,500	$17,500	$17,500	$87,500
NET REVENUE (COSTS)	$17,500	$17,500	$17,500	$17,500	$17,500	$87,500

CUSTOMER SUMMARY	**Year One 0**	**Year Two 1**	**Year Three 2**	**Year Four 3**	**Year Five 4**	**Total**
Total Change in Revenue	$0	$0	$0	$0	$0	$0
Total Increased Costs	$0	$0	$0	$0	$0	$0
Total Decreased Costs	$17,500	$17,500	$17,500	$17,500	$17,500	$87,500
NET REVENUE (COSTS)	$17,500	$17,500	$17,500	$17,500	$17,500	$87,500

DO NOT ENTER INTO THIS WORKSHEET.
This worksheet contains formulas and will automatically calculate grand totals of the amounts you enter on the Agency, Other State Agencies, and Customer tabs.

Agency Name: Washington Department of Fish and Wildlife
Project Title: Snow Creek Resort Water Access

SUMMARY OF ALL DATA	Year One	Year Two	Year Three	Year Four	Year Five	
Fiscal years ending June 30,	0	1	2	3	4	Total
REVENUE						
Increased Revenues						
Revenue generated and collected from new sources / Other	$0	$0	$0	$75,000	$141,900	$216,900
Increased collection of revenue from existing sources / Other	$0	$0	$0	$0	$0	$0
Increased compliance with existing laws / Other	$0	$0	$0	$0	$0	$0
Increased time availability of funds / Other	$0	$0	$0	$0	$0	$0
Other -	$0	$0	$0	$0	$0	$0
Other -	$0	$0	$0	$0	$0	$0
Other -	$0	$0	$0	$0	$0	$0
Total Increased Revenues	$0	$0	$0	$75,000	$141,900	$216,900
Decreased Revenues						
Reduction in agency revenues due to redirected revenue stream / Other	$0	$0	$0	$0	$0	$0
Reduced fines to customers / Other	$0	$0	$0	$0	$0	$0
Other -	$0	$0	$0	$0	$0	$0
Other -	$0	$0	$0	$0	$0	$0
Other -	$0	$0	$0	$0	$0	$0
Total Decreased Revenues	$0	$0	$0	$0	$0	$0
Total Change in Revenue	$0	$0	$0	$75,000	$141,900	$216,900
INCREASED COSTS						
One-Time Costs						
New hardware purchases (computers, etc.) / Other	$0	$0	$0	$0	$0	$0
New purchases of payment processing terminals / Other	$0	$0	$0	$0	$0	$0
New equipment purchases (furniture, fixtures, etc.) / Other	$0	$0	$0	$0	$0	$0
New software licensing / Other	$0	$0	$0	$0	$0	$0
Programming costs / Other	$0	$0	$0	$0	$0	$0
Other development costs (payroll and benefits, service contracts, etc.) / Other	$0	$0	$0	$0	$0	$0
Reporting costs / Other	$0	$0	$0	$0	$0	$0
Marketing costs / Other	$0	$0	$0	$0	$0	$0
Training costs / Other	$0	$0	$0	$0	$0	$0
Setup and testing costs / Other	$0	$0	$0	$0	$0	$0
Installation of new or added phone lines, or other infrastructure / Other	$0	$0	$0	$0	$0	$0
Payments Card Industry (PCI) compliance / Other	$0	$0	$0	$0	$0	$0
Consulting fees / Other	$0	$0	$0	$0	$0	$0
Other - Capital Request 19-21	$400,000	$400,000	$0	$0	$0	$800,000
Other - Capital Request 21-23	$0	$0	$750,000	$750,000	$0	$1,500,000
Other - Capital Request 23-25	$0	$0	$0	$0	$2,600,000	$2,600,000

On-Going Costs						
Internet hosting costs / Increased costs to OST for ACH fees / Increased costs for new/modified service fees	$0	$0	$0	$0	$0	$0
Software maintenance, renewals and updates / Other / Increased costs for convenience fees	$0	$0	$0	$0	$0	$0
Reporting costs / Other	$0	$0	$0	$0	$0	$0
Marketing costs / Other	$0	$0	$0	$0	$0	$0
Payments Card Industry (PCI) compliance / Other	$0	$0	$0	$0	$0	$0
Increased reconciliation and accounting costs / Other	$0	$0	$0	$0	$0	$0
Increased banking fees (credit card transaction fees, reporting fees, monthly fees, etc.) / Other	$0	$0	$0	$0	$0	$0
Increased staff costs / Other	$0	$0	$0	$0	$0	$0
Other -	$0	$15,000	$50,000	$75,000	$100,000	$240,000
Other -	$0	$0	$0	$0	$0	$0
Other -	$0	$0	$0	$0	$0	$0
Total Increased Costs	$400,000	$415,000	$800,000	$825,000	$2,700,000	$5,140,000
DECREASED COSTS						
Reduced check and cash handling costs / Other / Reduced travel time	$10,000	$10,000	$10,000	$10,000	$10,000	$50,000
Reduced NSF losses and processing costs / Other / Reduced wait time	$5,000	$5,000	$5,000	$5,000	$5,000	$25,000
Decrease in refunds due to more accurate calculations / Other / Reduced parking costs	$2,500	$2,500	$2,500	$2,500	$2,500	$12,500
Decrease in staff costs / Other - Reduced mail/postage costs	$0	$0	$0	$0	$0	$0
Reduced theft or fraud costs / Other / Reduced late fees	$0	$0	$0	$0	$0	$0
Other -	$0	$0	$0	$0	$0	$0
Other -	$0	$0	$0	$0	$0	$0
Other -	$0	$0	$0	$0	$0	$0
Total Decreased Costs	$17,500	$17,500	$17,500	$17,500	$17,500	$87,500
NET REVENUE (COSTS)	($382,500)	($397,500)	($782,500)	($732,500)	($2,540,600)	($4,835,600)

ALL VIEWS SUMMARY	**Year One 0**	**Year Two 1**	**Year Three 2**	**Year Four 3**	**Year Five 4**	**Total**
Total Change in Revenue	$0	$0	$0	$75,000	$141,900	$216,900
Total Increased Costs	$400,000	$415,000	$800,000	$825,000	$2,700,000	$5,140,000
Total Decreased Costs	$17,500	$17,500	$17,500	$17,500	$17,500	$87,500
NET REVENUE (COSTS)	($382,500)	($397,500)	($782,500)	($732,500)	($2,540,600)	($4,835,600)

Office of Financial Management (OFM) P.O. Box 43113 Olympia, WA 98504-3113	REQUEST FORM **For Approval of Economic Feasibility Study (EFS) Business Case** (EFS Part 1 of 2)

INSTRUCTIONS

What information is required?

1. EFS Business Case (this form)
2. EFS Cost Benefit Analysis form

How do I complete this form?

- Read all of the form instructions.
- Complete all sections of the form or type "N/A" for fields that are not applicable to your project.
- Be as detailed as possible in your responses.

Why do I need to prepare an EFS?

It is required by law. RCW 43.41.180 says, "(1) The office of financial management is authorized to approve the use of electronic and other technological means to transfer both funds and information whenever economically feasible…(2) No state agency may use electronic or other technological means, including credit cards, without specific continuing authorization from the office of financial management."

What is the definition of economic feasibility?

A project is economically feasible, when over a reasonable period of time, the project's cumulative benefits outweigh or are equivalent to the project's cumulative costs.

Where can I find more information?

- Chapter 40 of the *State Administrative and Accounting Manual (SAAM)*: http://www.ofm.wa.gov/policy/40.htm
- OFM's E-Commerce Resources web page: http://www.ofm.wa.gov/resources/ecommerce.asp

OFM E-Government Consultant
Anna Quichocho
anna.quichocho@ofm.wa.gov
(360) 725-0187

Office of the State Treasurer (OST) Cash Management
Ryan Pitroff
ryan.pitroff@tre.wa.gov
(360) 902-8917

Are there additional considerations?

Automated Clearing House (ACH) Transfers are the preferred method for agencies accepting and/or disbursing funds electronically. This method is generally the least expensive method, and works well for internet applications, recurring transactions, and one-time transactions. Agencies **are required** to evaluate ACH as the primary option for accepting and/or disbursing funds electronically.

Office of the Chief Information Officer (OCIO) approval may be required for information technology investments. If required, this approval must be obtained before releasing or issuing any acquisition documents. For more information, refer to: https://ocio.wa.gov/starting-it-project

OFM approval may also be required if you are planning an investment in a financial or administrative system. SAAM 80.30.88 (http://www.ofm.wa.gov/policy/80.30.htm) requires agencies to obtain written approval from the OCIO and OFM prior to acquiring, developing, implementing, or otherwise investing in an agency specific or agency maintained financial systems.

Financial Service Agreements – OST has the authority to negotiate master contracts with financial institutions (RCW 43.08.015). Certain responsibilities may be delegated to agencies with OFM's concurrence. For more information, refer to SAAM Chapter 65 (http://www.ofm.wa.gov/policy/65.htm).

How do I submit my EFS?

Email this business case form and the cost benefit analysis form to:

Brian Tinney, Assistant Director
OFM Accounting Division
brian.tinney@ofm.wa.gov

Copy:
Anna Quichocho
anna.quichocho@ofm.wa.gov

Ryan Pitroff
ryan.pitroff@tre.wa.gov

SECTION 1 – PROJECT INFORMATION

AGENCY: Wahington Department Of Fish And Wildlife **DATE:** 09 / 30 / 2018 (MM / DD / YY)

PROJECT DESCRIPTION: Snow Creek Resort Camping and Boat Launch

Proposal for: (select one)
- ☒ New project
- ☐ Change to existing process

ESTIMATED IMPLEMENTATION DATE: 08 / 01 / 2023 (MM / DD / YY)

PROJECT TYPE: (select one)	☒ Permanent ☐ Pilot – If this box is checked, when is the pilot phase expected to end? ___ / ___ / ___ (MM / DD / YY)
PROJECT INCLUDES: (check all that apply)	☒ Acceptance of electronic payments ☐ Disbursement of electronic payments
PAYMENT CHANNELS: (check all that apply)	☐ Internet ☐ Kiosk ☐ Lockbox ☐ Mail ☐ In-Person ☐ Telephone ☒ Other (describe) **Via a second party vendor**
PAYMENT TYPES: (check all that apply)	☐ Automated Clearing House (ACH) ☐ Bankcard (Credit/Debit) ☐ Prepaid Debit Card ☒ Other (describe) **quarterly billing through contract**
If your project includes acceptance of bankcards, which brands do you plan to accept? (check all that apply)	☐ American Express ☐ Discover ☐ MasterCard ☐ VISA ☐ Other (describe)

SECTION 2 – BUSINESS CASE

1. What is the goal of this proposed project?

The Snow Creek Resort is in dire need of restoration. This feasibility project is designed to analyze what the development options are and how best to collect fees needed to both maintain the site. In addition, our goal is to keep on par with fees collected by nearby private marinas as to not negatively impact the local economy. WDFW would like to evaluate and establish the level of service and amenities possible to develop at the Snow Creek Resort, and verify the options available for WDFW to manage and maintain a remote waterfront resort at the Snow Creek site. The project analysis reviews the ability to manage the site in away that is consistent with user expectations, and analyze the constructibility of developing upland and inwater components necessary for the site to function as a full service water access site. The expectation is that the site would be managed and maintained in such away that would allow camping, water access, and moorage for a fee. Those fees would help offset maintenance costs and cover a full time seasonal caretaker. We compared the ability of our agency to collect fees versus using a vendor to manage the site and collect fees under a MOU. Historically, the site was managed through a private vendor who was responsible for maintenance and WDFW received a portion of those fees funding for repairs and management through an accounts receivable contract. As the infrastructure approached the end of functional life cycle, the costs to keep up the site no longer kept up with the income from the site. The goal is establishing the financial viability of the site to make it attractive for a vendor to operate at minimal cost to the state.

2. What is the business problem you are trying to solve?

Placing a value or cost/benefit analysis on an experience is extremely difficult to quantify. We are trying to solve how to proceed with the development of the Snow Creek Resort that results in a functional and maintainable water access site. How do we provide the level of service expected and also protect the capital investment of a high maintenance site? Previously, a vendor managed all of the financial transactions of the existing resort with primarily cash transactions. We are trying to find out if it is feasible for WDFW to manage/track payments by a vendor and balance maintenance and operating costs of the preferred development option with the fishing and water access benefits desired. The challenge is that the more capital improvements made to the site, the greater the income potential, and the greater the overall maintenance costs. WDFW currently does not manage any sites for profit and maintains very few private vendor contracts to manage public access sites. The business problem is to figure out the feasibility of what can be constructed and establish the costs to both construct infrastructure and to maintain it. In the evaluation of WDFW charging a site access fee or a vendor collecting fees for site maintenance, no precedent exists for WDFW collection of fees at a specific site. WDFW relies on Discover Pass fees and operating budget to maintain all of its access sites. Therefore, we have come to the conculsion that a contracted vendor is the most practical approach to be able to collect the fees needed to keep a full time water service vendor and camphost.

SECTION 2 – BUSINESS CASE

3. Describe the following elements as they relate to your Current Process:

a. How are payments currently processed? What types of payments are accepted?
Over the past 30 years, a vendor has been responsible for accepting all payments for camping, launching boats, showers, and sundries primarily through cash payments, in person, at the front office. The vendor also had the capability to accept VISA and Mastercard. The vendor was responsible for maintaining the accounting books and reporting to WDFW the income and expenses of managing the site.

b. What is the current volume of transactions?
Currently the site is not collecting any fees. All services requiring fees such as camping, launching boats, and mooring have been decommissioned. Past circumstantial data shows in the neighborhood of 30-100 transactions a day during the peak summer months.

c. What is the average dollar amount per transaction?
When the site was active $10-$30 per launch was charged depending on the size of the boat and camping fees were $25-$40 per night depending on the size of the trailer. Some campers were allowed to pay on a weekly basis.

d. What is the current timing of transactions? Are they received/disbursed on a regular basis?
Transactions were exclusively during business hours during the summer months only. May-September, 6:00 am - 4:00 pm, typically. The vendor would receive disbursements on a regular basis and WDFW would evaluate fees anually to collect the agreed upon residual profit. It is expected that moving forward similar transaction times would occur. Transactions would be received and disbursed regularly.

4. Describe the following elements as they relate to your Proposed Project:

a. Describe the customer base.
The customer base would be exculsively fishers, boaters, wildlife viewers, and campers during the summer months. These customers would be the same base as our Discover Pass users. Halibut and salmon fishing seasons are the heaviest use periods, with only a few days a year of opportunity but heavy and concentrated use.

b. What is the expected volume of transactions?
The basis of transactions is directly tied to the number of camping spaces designed, and the presence of a boat ramp, mooring floats, and running water. It could range from 30-100 transactions per day. It is expected that launching and mooring would only take place May-September with average usage of 30 transactions per day. During peak halibut season, transactions would exceed 100 per day based on the planned number of camp sites,moorage sites, and ability of boats to launch from the site. Currently, the plan as proposed for design, would accommodate 15 RV campsites, 10 tent sites, and 12-24 moorage sites. It is also expected that an average of 20-30 vessels a day would launch.

c. What is the average dollar amount per transaction?
The average transaction amount would be expected at $35/nt for camping. The typical customer would pay for two nights camping and a few supplies for a transaction amount of $75. When the rail launch was active a fee of $10-$20 was charged depending on the length of the boat. Included in the supporting documents are the fees from similar private launches and marinas that access similar fishing opportunities. The average mooring fees were $10-20 per night, camping was $35 per night, and tents were $20 per night.

d. What is the expected timing of transactions?
Transactions would take place during business hours only, during the summer. Typically 6:00 am - 4:00pm

e. How will this be an improvement over the current process?
The previous vendor agreement was that Fish and Wildlife would receive a portion of the profits for capital improvements and repairs, and the vendor would perform the more routine maintenance on the site. However, the cash nature of the revenue made it difficult to see if the resort was viable business, or if the agreement was equitable for both parties. Moving forward, language will be revised and the methods of collecting fees will be evaluated to encourage a more transparent fee structure and disbursement. The previous agreement is attached in the supporting documents.

5. How will the proposed project benefit your agency, customers, and/or other state agencies?

Having the Snow Creek Resort open and functional to the public is important to the fishing community. It is a priceless opportunity that is not easily replicated. WDFW customers have asked that the site be open due to the limited water access sites and mooring sites in the area. The Makah Tribe and other private businesses run several launches and campgrounds in the area, however they are filled to capacity during the peak fishing season. The same is true of the Olson's Resort in Sekiu. Space is limited and people camp in a gravel lot. The operation of Snow Creek Resort as a functional campground and boat ramp would bring additional fishing and tourism dollars to the remote communities in the area with the need for fishing supplies, bait, groceries, gas, and restaurant. An estimate of 65 camping families per week during fishing season would spend upwards of $200/family conservatively on food, fuel, and supplies on average, bringing over $150,000 in revenue directly to the area in just for those 12 weekends. Mid-week and non-fishing campers and boaters could nearly double that, bringing in $300,000 in supplementary spending to the small communities of Neah Bay and Sekiu. Due to the extremely seasonal nature of the tourist season in the area, any little boost would be beneficial to the communites nearby.

SECTION 2 – BUSINESS CASE

6. Does this project include ACH? If not, explain why ACH would not be a viable option. *SAAM 40.40.30 requires agencies to evaluate ACH as the primary option for their electronic payment project.*

After evaluating options, it is WDFW preference to use a vendor to process payments in combination with an accounts receivable contract.

7. Does this project include the acceptance of bankcard payments? If yes, how does your agency plan to handle the associated transaction fees? Will your agency absorb the fees within existing funding or will you charge a convenience fee to the customers? *The bank must approve the agency's convenience fee model.*

This project includes researching the viable options to collect fees from the site. If the site is fully developed in accordance with the users requests, the site cannot function with operating dollars alone while providing a level of service that our customer base would want. Current agency policy has been to use existing operating dollars and Discover Pass fees to help maintain our access sites without additional cost. If a vendor can manage the site and collect fees, it would allow WDFW to develop the site with the highest level of amenities. The financial review has established that if a full-time, on-site, vendor cannot collect fees, that the level of amenities such as running water and publicly available RV hook-ups would not be possible due to the cost and time needed to keep those systems maintained.

8. Have you conducted a survey or evaluation to help determine the needs and usage of the proposed project by current or potential customers? If yes, describe your findings.

We have performed an evaluation of the site to determine the capacity of the real estate, including developmental and environmental restrictions. We have also surveyed comparable sites to determine fee structures. A limited number of users have been interviewed as to the desired level of service. We are also currently keeping the Makah tribe apprised of our progress as they will certainly be a key partner as we move forward with design. Community support is critical to this project being successful.

9. How did you determine the assumptions made in the EFS? What was your reasoning? Were any alternative processes considered in the development of this project?

Many assumptions were made as part of this Feasibility Report. The first assumption is that this document will provide clarity in options for the capital development of the site. The second assumption is that it is extremely difficult to put a dollar number on the experience of fishing the Neah Bay area and catching a few salmon or halibut. Our users value the experience. There were also assumptions in the usage numbers generated. WDFW staff and historic users of the site were interviewed on levels of occupancy. Historic photos were reviewed to see how many mooring and camping spots were used to generate numbers. Also, historic surveys and construction documents were reviewed to determine the number of feasible camping spots, the locations of water, power, and sewer, and to effectively create a desired future condition to generate the financial plan from. Several alternative processes were considered including planning for a no-fee option, a WDFW staff only option, and a vendor based development option. Discussion with regional staff and maintenance staff lead us to the vendor based option, which provided a pathway for the highest level of amenities and an already accepted way of collecting fees. The next possible alternative would be to give the public a minimalist site that was limited to water access only. The primitive option is less favorable because it would generate less tourism income for the neighboring communities.

10. What would the consequences of not implementing this proposed project be to your agency, other state agencies, and/or your customers?

During the process of this feasibility report WDFW has decided to focus on a vendor to manage the site. Through a written contract, and an accounts receivable contract, WDFW can receive funds to maintain and operate the site. This was the perferred option for the management of the site while providing the highest level of amenities. In order to accomplish this, a considerable capital project must be completed to bring the site up to health and safety standards, and well as increase usability. If a full time care taker is not possible, a smaller capital project would be required to demolish the existing condemned infrastructure and create a primitive water access site. Without a capital project to improve the site, our obligation to RCO to maintain the site and provide a boat launch would be compromised, putting approximately $2M/biennium in RCO boating access grant projects at risk of not being funded due to non-compliance.

11. Have you contacted OST to discuss electronic payment options, contracts, merchant IDs, equipment, software, and banking fees as they relate to this project?

As the preferred option is a vendor to care for the site and collect payments, it would place the responsibility on the vendor to establish equipment and banking arrangement. WDFW would set up an accounts receivable contract to collect revenues.

12. If applicable, have you consulted with your agency's Assistant Attorney General on any legal issues?

No

13. Will you be issuing a Request for Proposal (RFP) to procure services for this project? If yes, describe the services that you will be requesting.

It is likely that WDFW would advertise for proposals for a vendor/caretaker to manage the site. That vendor would be responsible for collecting fees, performing basic maintenance such as cleaning and mowing.

14. Do you have any additional comments or information about this project that you would like to provide?

Please review the attached supporting documents for additional information.

SECTION 3 – ECONOMIC FEASIBILTY ELEMENTS

Check all applicable boxes and describe how this project will impact the following elements. Provide detailed assumptions that can be traced to your Cost Benefit Analysis. Include impacts to your agency, customers, and/or other state agencies.

1. Revenue Increases ☐ Revenue generated and collected from new sources ☒ Increased collection of revenue from existing sources ☒ Increased compliance with existing laws ☐ Increased time availability of funds ☐ Other (describe)	**Describe all revenue increases:** Revenue would be increased by improved tracking of fees paid, additional contract oversight. If a capital improvement project is approved, a higher quality of amenities and more reliable service would increase revenue. Revenues would be increased at both the Snow Creek Resort and surrounding communities that provide support services such and food and fuel. As a popular fishing site, a well-developed boat ramp and moorage would increase fishing activities and potentially lead to additional licenses sold and fishing gear purchased.
2. Revenue Decreases ☐ Revenue decrease to other state agencies due to redirected revenue stream ☐ Reduced fines to customers ☐ Other (describe)	**Describe all revenue decreases:** There is a great concern that WDFW providing a water access at a lower rate than the surrounding private community launches would undercut the community businesses. This is the primary reason to set up a vendor to collect fees competitive with the surrounding areas as to not undercut, but provide additional tourism income. If the site is not redeveloped, there would be a reduction in camping, boating, and fishing tourism to the area.
3. Cost Increases ☐ New hardware purchases (computers, etc.) ☐ New purchases of payment processing terminals ☒ New equipment purchases (furniture, fixtures, etc.) ☐ New software licensing ☐ Software maintenance, renewals, and updates ☐ Internet hosting costs ☐ Programming costs ☒ Other development costs (payroll and benefits, personal service contracts, etc.) ☐ Reporting costs ☐ Marketing costs ☐ Training costs ☐ Setup and testing costs ☒ Installation of new or added phone lines, or other infrastructure ☐ Payment Card Industry (PCI) compliance ☐ Increased reconciliation and accounting costs ☐ Consulting fees ☐ Increased banking fees (i.e., credit card transaction fees, reporting fees, monthly fees, etc.) ☒ Increased staff costs ☐ Increased costs to customers for new/modified service fees ☐ Increased costs to customers for convenience fees ☐ Increased costs to OST for ACH fees (i.e., transaction fees, return item costs, etc.) Other (describe)	**Describe all cost increases:** The primary cost of this proposal is the capital improvement cost to redevelop the site. The site, brought up to code, would be redeveloped with the appropriate phone service, power, water, septic to allow for an onsite caretaker/vendor to set up their own hardware/software and set-up costs. There will be the increased maintenance costs that would be covered by the fees charged. With improvements to the site, there will be increased staff costs to administer the vendor contract, perform more in-depth maintenance and inspection, and visit the site on a routine basis. WDFW expects to manage increased staff time with existing operating budget. Capital improvements will be funded through a capital budget request for 2019-21 for design, 2021-23 for boat ramp construction, and 23-25 for upland improvements and moorage.

SECTION 3 – ECONOMIC FEASIBILTY ELEMENTS

4. Cost Decreases

- ☐ Reduced check and cash handling costs
- ☐ Reduced NSF losses and processing costs
- ☐ Decrease in refunds due to more accurate calculations
- ☐ Decrease in staff costs
- ☐ Reduced theft or fraud costs
- ☒ Reduced travel time for customers
- ☒ Reduced wait time for customers
- ☒ Reduced parking costs for customers
- ☐ Reduced mail/postage costs for customers
- ☐ Reduced late fees for customers
- ☐ Other (describe)

Describe all cost decreases:

By providing more water accedd opportunity in the area to users, we are reducing the wait times at the existing launches. We are providing additional capacity so that more people can get to the area in general. Parking for boaters and day-use could be covered under the discover pass instead of private parking fees. In our cost benefit analysis, small numbers were identified in decreased costs to users to cover some of the more intangible costs of saving time and travel distance. There is a cost decrease in customer costs just by having additional opportunity.

In addition to the narrative descriptions above, agencies are required to submit a Cost Benefit Analysis form as part of their EFS approval request.

SECTION 4 – CONTACT INFORMATION

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FOR OFM / SWA USE ONLY Date: / / (MM / DD / YY) ☐ Approved ☐ Approved with conditions ☐ Denied

Comments:

Tab B
Site Report

Site Summary

BACKGROUND/HISTORY

Located just east of Neah Bay, Snow Creek Resort is a 7.42 acres parcel purchased with a 1978 Land and Water Conservation Fund Grant for the purpose of establishing a boat launch. The site was operated and maintained by a contracted vendor until site was gated and buildings locked in 2017 due to non-compliant infrastructure.

The site is divided into two lots with state route 112 (Strait of Juan de Fuca Highway) running through the middle. The lower lot contained the majority of the amenities. The upper lot was used for overflow camping, parking, and contained the water treatment facility.

The site has been popular for camping, halibut fishing, whale watching, bird watching, bottom fishing (ling cod), boating, mooring and scuba diving. Several attempts have been made through the years to obtain funding for upgrading the boat ramp from a high maintenance rail launch to a more updated and user friendly, elevated or on grade concrete ramp. However, expansion of the ramp was not well received by the community which manage their own ramps and were concerned about the financial impacts a state ramp would have within a geography of private ramps. It was concluded that the site would operate as-is with a low-volume rail launch and adequate camping. The site holds a lot of potential and in working with the community we are looking at the viability of managing a full-service access site compared to managing a primitive, low maintenance access.

At the peak of operations in the early 1990's the Snow Creek Resort amenities included:

- Surface water source with a community water treatment facility located at upper lot and piped to the lower lot,
- Electricity at upper and lower lots,
- flush restrooms, showers at lower lot,
- campsites with trailer outlets and water at both lots, septic hookups at lower lot,
- rental cabins with power, water, septic, at lower lot,
- rail launch with crane hoist,
- pier,
- dock with removable floats, (up to 600 lf)
- mooring buoys, (up to 16)
- office with snacks and bait, capable of credit card transactions,
- parking areas for cars, boats, trailers at both lots
- picnic areas with water view at both lots
- tent sites primarily at the lower lot across the creek

Modifications to the site since purchase include, the old residence being removed and replaced with a concrete masonry restroom and showers in the mid 1980's. The fuel system was decommissioned. The site has continued to go through minor adjustments including the addition and removal of cabins, relocations of RV sites, addition of storage containers. Full removal of the pier system, floats, and mooring buoys due to lack of an aquatic lease.

RCO PURCHASE AGREEMENT

The Snow Creek Resort site was purchased with state Recreation and Conservation Office (RCO) funds for water access. The language in the RCO agreement states that the purchase of the property was for installation of a boat launch. The language of the agreement is in perpetuity. In reviewing the contract, the property acquired in 1978 must include a boat ramp to meet the original contract agreement. RCO does maintain language for conversions of property from the contract requirements but only if a replacement of similar opportunity (equivalent site with similar boating opportunity geographically) is developed without financial assistance from RCO. If a boat ramp is not provided at this site, another nearby site must be acquired and developed in exchange. This option was not included in the feasibility analysis as any other site would need a feasibility or pre-design process of its own to determine eligibility.

FEASIBILLITY OPTIONS

Through the feasibility process the following project concepts were compiled based on some critical pathway evaluations.

- The project must be permittable or environmentally feasible.
- The project must be palatable to the local community and not cause economic or social hardship.
- The project must meet the criteria of the original Land and Water Conservation Fund grant.
- The project must result in a product that is maintainable, physically and financially and provide motorized boating access.

CURRENT STATE

At the Snow Creek Resort, the vendor has been released, and there is currently no full time caretaker. Cabins were removed, water system has been decommissioned due to lack of a consistent water system monitor. Bathrooms are non-ADA compliant, functional, but in need of updating. Boarding dock had rusted through and was removed in its entirety. Rail system exists but is not structurally fit for use. The motor system for the hoist exists on site but shows considerable rust and wear. The office area has been vandalized and is no longer in a usable condition. The power and water infrastructure are intact but decommissioned. The septic system condition is unknown.

The site is gated and locked. Walk-in only to the public until further notice. Current usage includes beach access, picnicking, kayaking, and wildlife viewing at the lower lot. The upper lot is not being used by the public at this time, although picnicking and wildlife viewing are possible.

UPLAND SYSTEMS EVALUATED

Water

Water system consists of a surface water diversion located on a tributary stream to Snow Creek. Water system is regulated as a commercial system and requires consistent monitoring, water filtration, and water quality testing for turbidity. The water system services the restroom and water spigots throughout the lower camping area.

The water right for the parcel is 0.0500 CFS (22.45 gpm). The surface diversion directly from Snow Creek consists of a 1 ½ -inch hose, a few sand bags, and a pump system. Snow Creek is a fish bearing stream. WDFW documents winter steelhead, coho, and kokanee presence in Snow Creek, in the vicinity of the intake. Therefore, it would be a requirement to formalize a fish friendly intake complete with screening prior to starting the system back up.

The water system received considerable upgrades in 2014 and 2015 to bring it into compliance with Department of Health. Upgrades included sand filters, chlorinators, turbidity meters, and electrical control panel upgrades. Due to the nature of the surface water intake, the group public use, and the most recent Department of Health requirements. Running water at the site is only feasible if a full time caretaker is available to perform the following:

MONITORING REQUIREMENTS:

- Raw water fecal coliform is due monthly when the system is in operation.
- Distribution coliform monitoring is due monthly when the system is in operation.
- Nitrate shall be monitored monthly for this water system.

- The operator shall check the turbidity of the system at least twice per day once in the morning and once in the afternoon and record the readings. In the event of heavy weather or rain the meters shall be checked more than twice per day with records being kept.
- The operator shall check the daily residual in the distribution system and monitor the online chlorine analyzer and record the data.
- The operator shall take weekly samples for verification of the online turbidity meters by taking grab samples and analyzing with the bench top turbidity meter.
- The operator shall make a monthly calibration of the bench top turbidity meter with StablCal standards for verification of its accuracy.
- The operator shall test the raw water side of the system monthly and record the findings during normal operation. This includes when the system is first started in the spring for ripening to the day of shut down.
- The operator shall test for coliform in the distribution system monthly when the system is in operation and record the data.
- The operator shall test for nitrate annually at the beginning of the season of operation and record the data.
- The operator shall operate the intake pump in the automatic mode during normal seasonal requirements which is controlled by the water level in the slow sand filter bed.
- The operator shall follow the design operating procedure for seasonal starting the slow sand filter system.
- The operator shall review and become familiar with the valve start up and valve run positions for correct operation of the water system.

If running water is used at the site, options considered probable and feasible for this water system include:

- Complete formalization of the intake with either a screened vault or inline screen.
- Modernization of the water treatment with real-time monitoring and reporting.
- Water delivery to upper and lower sites for domestic use.

The other potential option would be to fully decommission the water system and make the site available for dry camping and water access only.

Septic

The existing septic size and location had been located off of existing drawings. The septic system consists of several barrel type tanks about the lower property, and a shower/ flush restroom all draining to 3 laterals located against the eastern hillside. The septic system will need to be redesigned to accommodate the needs of the area. Options considered for septic include:

- No septic at all – This would be the primary option if water system is not or cannot be properly maintained
- New septic at the upper lot – this option could be helpful if shower and flush restrooms were moved to that location or if full RV hook-ups are created.

- Clean and maintain existing system – The current system may still be viable for the restrooms. All recent connections add-on from the removed cabins would need to be fully decommissioned.

Electrical

Much of the electrical work done for the camping hookups was not fully documented. For a feasibility assessment it is assumed that all electrical work will be redone and up to the current code. The primary power source is intact. All utilities would be located and documented prior to property redevelopment. Options for electrical will be based on the final design outcome, but could include the following:

- Full rewiring of all of the RV pedestals at both the upper and lower lots.
- Removal of all of the electrical service from the upper and lower lot and only maintain safety lighting.
- Upgrade all agency controlled power to underground service to minimized unsightly overhead power lines (excluded the PUD lines that run over the highway).

Gantry/Crane/Rails

Gantry is fully rusted through with large perforations in the webbing. Current gantry is beyond repair and would need full replacement. Hoist is no longer present, should a rail launch be installed on site, a new system would be required. Rails are in decent condition with minor rust, however the rail supports are nearly rusted through with several lengths of rail no longer supported at all. Although discussed further in the Mott MacDonald Report attached, the feasibility of running a rail launch is unlikely. The liability, costs, and high maintenance both financially and with staff time make this a challenging option. Rail launches are further complicated by Labor and Industries which may be able to regulate the rail launch similar to a carnival ride if boaters are allowed to ride in the boat while it is on the rails. User safety is a concern with rail launch systems, making the rail launch a feasible but unlikely option.

On Grade Ramp

Another option considered, was the on-grade concrete plank boat ramp. The on-grade ramp is low-cost easy to maintain with standard heavy equipment for clearing sand and debris. However, the site does not support an on grade launch due to the shallow nature of the beach profile. The beach is only running at a 4%-5% grade. Trying to launch a boat at these slopes would require the user to back their vehicle into salt water until the front bumper in nearly touching water. The on-grade ramp would essentially serve as a hand-launch requiring the user to push their shallow hull boat off of the trailer. Obtaining the 3 feet of water depth typically deemed the minimum to

launch would be difficult. An on grade ramp would not meet the design elements recommended by the State Organization for Boating Access, (SOBA).

Pier

The pier to float system consisted of a fixed pier with a long gangway to a series of floats. The pier that existed was redecked and handrailing added to improve safety a few years back. The pier was subsequently demolished entirely due to structural deficiencies, rust, and missing structural components. The gangway was preserved but is in rough shape, and the floats are completely out of compliance with standards included use of Styrofoam, no light penetration, and no grounding prevention devices. The floats, pier, and gangway would need complete replacement.

Restroom

The restroom facility was built in 1985 and has been maintained. The shell, (roof, walls, foundation) are in reasonable shape. However, the shower mechanisms, venting, and mechanical systems are at life expectancy. The entire structure would need to be remodeled or replaced to accommodate the Americans with Disabilities Act. Current layout and drawings of the restrooms are included in the supplemental information of this report.

Options considered for this building would include the following:

- Remodel existing structure to bring up to code.
- Retain flush restrooms but remove showers
- Add out-door beach hose off system

- Completely replace with similar toilet/shower building
- Completely replace with vault toilet/ no running water
- Duplicate a similar system at the upper lot
- Provide seasonal water/ flush system and year-round vault

As the site is primarily seasonal use, maintenance costs could be reduced by keeping the showers/ flush restrooms limited to seasonal usage as well. A combination of vault system and running water system would allow for all-season site usage with only summer/peak time water usage.

Upper Lot

The Upper lot of the Snow Creek Resort is the location for the resort's water treatment building. It is also overflow parking, has water and power hook-ups for RV's, and is a storage location for floats, buoys, containers, anchors, miscellaneous storage, and some picnic sites. Although not waterfront property, the site does provide amazing views of the Strait, Sail Rock, and with its large trees, often hosts bald eagles. The site does not currently have a septic system and water is limited to a few RV hook-up sites. Historically, the on-site vendor had portable toilets brought in to the upper lot due to the distance to the lower lot where the amenities were. The water treatment facility is fenced off for security. The site does need some attention as the previous tenant left behind a lot of material and supplies. To fully develop the upper lot a pedestrian route would need to be created to access the lower lot and the water. A trail location was scouted near the property boundary that would take users down the hill to the lower lot. Crossing State Route 112 would still be necessary to get to the waterfront.

Options for the upper lot include:

- Make the site a primitive picnic area, and parking only, remove RV sites and no running water, add a vault toilet,
- Develop the site as the primary campground complete with showers and septic,
- Manage the site as dry camping with vault toilet and overflow parking for trailers and cars.

Camping Areas

Camping is an important part of the Snow Creek Resort. Often boaters will spend several days in the area during halibut season due to the unique timing restrictions. Early mornings on the water and long drives from all over the Northwest combined with very limited lodging opportunities make camping, RV'ing, and other overnight stays very popular in the area. Although no formal surveys of users was conducted, interviews with previous users and current RV campers revealed that campers can be flexible. Preference is for the most amenities possible. However, most interviewed could sustain with dry camping, most had small generators for power, and all could manage without a septic system or dump station on site if another toilet option was available. Most preferred a running water source as well even if it wasn't an individual hook-up. Safety and security were important to campers. Having a caretaker to help answer questions and monitor activities was preferred.

WATER ACCESS REQUIREMENTS

Mooring buoys, boat ramp, pier, floats, and all infrastructure below Ordinary High Water or Mean High Water is within the regulatory domain of the Department of Natural Resources and the Army Corps of Engineers. All work done must be approved by DNR and qualify for an aquatic lease from the agency. In addition, all designs and construction must comply with Federal in-water requirements. Due to the unique and complicated nature of coastal water construction and design, a separate report was generated by a coastal engineering consultants with Mott MacDonald. Their report can be found in the Technical Memo of this document. Their report consists of a series of water access options, probable costs, and probable permitting constraints. Permitting constraints from DNR and the Army Corps of Engineers dictate everything from protected habitats to design elements including minimum water depths for floats and buoys, percent light passage through floats, appropriate methods to avoid grounding of floats and buoys and distances from protected eel grass beds.

DNR who owns the aquatic lands in the state of Washington, have direct capability to dictate the infrastructure on their land. It would be necessary to apply for an Aquatic Lease as part of this

project for any infrastructure within the waterline. Specific design details needed for approval from DNR would be developed within the design and permitting phase of the project.

For example, in the case of the desired mooring buoys that are extremely popular with boaters in the area, DNR requires the following:

1. Mooring buoys must be anchored where the water will be deeper than 7 feet at Extreme Low Tide or 11.5 feet at Mean Lower Low Water.
2. The buoy must meet or exceed all United States Coast Guard regulations.
3. For visibility and identification:
    a. The buoy must float at least 18 inches above the surface of the water
    b. The buoy must be reflective white with a blue stripe.
    c. Mark the buoy with the DNR license numbers so that they are visible from 20 feet.
4. For anchor design:
    a. The anchor must be sufficient to hold the vessel in all weather.
    b. The licensee is responsible to ensure the anchor does not move.
    c. If the anchor moves offsite, DNR may terminate this license and require removal of the buoy and anchor.
    d. Use an anchor system that prevents vessel and line dragging and minimizes impacts to the bottom. DNR prefers embedded anchors unless not feasible due to substrate or other site- specific conditions.
    e. DNR does not allow a midline weight used as part of the anchoring system.
5. For buoy design:
    a. All buoys shall have a mid-line float system installed.
    b. The mid-line float must hold the tether line off the bottom at all tides.
    c. Locate the mid-line float at a distance from the anchor that is equal to 1/3 of the water depth at mean high water (MHW).

There are also state laws that dictate design criteria such as the rails of a rail launching system must lie on and follow the grade of the existing bed and bank (WAC 220-660-390). Which means elevated rails may not be feasible. If a rail system is designed it would most likely be identical to the existing system.

The prepared report from Mott MacDonald will further describe the physical conditions of the existing site, the likely options available for construction, and the challenges with each option for ramp design, float design, pier requirements, and mooring buoy design.

We do know that the configuration of the rail launch, pier, floats and buoys as they have existed over the last few decades no longer meet any of the current codes, standards, or laws. As a result of research done for this feasibility report, it is apparent that significant changes will be required for in water work over the past float and mooring configurations. The numbers of mooring spaces will be reduced at minimum. The numbers used for the economic assumptions were generated off the new requirements and not historical data.

In this photo the previous drums filled with Styrofoam (buoys) and drums filled with concrete (anchors) are no longer allowable.

Environmental

In addition to the design requirements for in-water structures, there are also protected habitats and species. In this area, a truncated list of protected species found in the waters (Strait of Juan de Fuca) include: Killer Whales, Sea Turtles, Salmon, Bull Trout, Smelt, Herring, Sand Lance (forage fish), marbled murrelets, and their habitats, such as forage fish spawning habitats, eel grass, off channel rearing habitats, large trees. State and federal laws require either no development or heavily mitigated development if any of these species are impacted by the construction or the final product.

In determining feasibility, a preliminary eel grass survey was performed by the environmental group at Shannon and Wilson, an environmental engineering firm. A snorkel survey was completed out to a -7 tidal elevation. No eelgrass plants were detected. There were several other species of macroalgae detected including the ubiquitous bull kelp and sea grass detected but those are not as critical as eel grass. The survey findings and detailed report are included with the supplemental information at the end of this report.

The lack of eelgrass and minimal intertidal drift makes a boat ramp more feasible with less environmental impact at the tidal levels surveyed. Nonetheless, significant mitigation efforts to restore beachfront will most likely be required.

Also a review of forage fish spawning locations was reviewed. The nearest spawning beach is a mile to the east. Although precautions will be required, including careful construction timing, it does not appear that our project will impact any known forage fish spawning grounds. As part of the permitting process, it would be expected that we would survey for forage fish eggs during the appropriate windows to ensure that we are minimizing impacts to the protected species. As with eelgrass surveys, forage fish surveys must be completed within a few months of construction for accuracy.

As for all of the other protected species, during the permitting process we will work with state and federal regulatory staff to ensure all design elements meet the highest level of habitat protection, adhering to the state hydraulic code, Department of Natural Resources aquatic lease requirements, and all federal regulations.

At this time with the feasibility evaluation, it does not appear that in-water construction elements would be prohibited.

Archaeological

The Snow Creek Resort is located adjacent to the Makah Reservation. It is well documented that tribal fishing and small villages existed all up and down the Strait. The resort site was heavily modified in the 1920's when the state highway was developed. A great deal of fill was pushed into the small harbor and modified it from its natural state. We have consulted with the Department of Archaeology and Historic Preservation (DAHP) regarding work at the site in the past. We have also conducted two recent archaeological surveys in the area. We have those reports, we will be consulting with all pertinent tribes and DAHP with regards to any work being performed and will take all required precautions to protect and avoid any potential cultural sites in adherence with Federal section 106 requirements as well as Washington State Executive Order 05-05.

OTHER CONSIDERATIONS

Community support

Any development or redevelopment of this site needs the support of the community. Negative impacts to the community or to cultural resources would drastically limit the options with this site. In deciding what is feasible, we have identified that we cannot reduce income to the surrounding businesses, we cannot reduce habitat, and we must maintain a good neighbor policy. As we move forward with design and more details, we will be working closely with stakeholders to provide the best project possible for the users, the community, in such a way that it can be maintained and be complimentary to the existing businesses in the area. Due to the remote nature of the site, the local community would be invaluable to keeping the site safe, secure, and maintained. Boat ramps and mooring in this area is getting more and more restricted and limited. Mandated regulatory changes in overwater structures and environmental protections have made water access and mooring the limiting factor to tourism in the area. An increase in water access would have great economic benefit to the community when managed cooperatively with the other boating access opportunities.

Land and Water Conservation Fund

This site was purchased with grant dollars that specifically require the site to be used for only the purpose identified in the grant. A copy of the agreement is included in the supplemental information. The agreement for the purchase of the site was for the construction of a boat ramp and corresponding recreational access. In reviewing the language it is clear that a boat ramp is part of the long term obligation of the grant. The LWCF grant also outlines that any conversion of the usage would require WDFW to replace the usage in kind at a similar location. That is, if a boat ramp is not in use at the current site, a second site of similar size, of a similar location,

capable of supporting a boat ramp, would have to be purchased with agency funds to replace the opportunity.

Ability to hire responsible vendor/caretaker

One of the biggest challenges for this project and determining the best design track to follow is the ability to find a full-time, seasonal caretaker, licensed water system monitor, maintenance person that can also collect fees. Through the economic feasibility review, it was determined that it is not practical for WDFW to set up a fee collection system at this site. However, it would be feasible and beneficial to manage a vendor who under contract with WDFW, would have the ability of collecting fees and managing the site in accordance with WDFW requirements. This site is remote and far away from WDFW support staff. It is not commutable for any current WDFW staff to perform the twice a day monitoring required of the water system. Nor is it feasible to have current staff monitor camping activities at night. If the site is to have running water, and camping, an on-site vendor and/or camp host must be available. This option appears to be feasible. WDFW has reviewed the processes and procedures that allowed the site to slip into disrepair and will restructure the lease/vendor agreement and increase oversite in the future to avoid similar issues to recur.

Seasonal floats imperative, high maintenance

Users interviewed proclaimed that boating access floats that allow for temporary tie up of watercraft and to assist with loading and unloading is critical to the boating community. Of great desire are also mooring floats that would allow for users to come ashore for the evening to camp. DNR and WDFW highly regulate the usage of overwater structures. To add additional challenge the bedrock evident in the area will most likely prevent the use of piling to secure the floats or require coring the rock to secure piling. As with the previous vendor, all floats would have to be removed and reinstalled seasonally.

Popular when kept up and available.

Throughout this feasibility study it is clear that users enjoy this location, and that the site can be fiscally profitable for an outside vendor. Historically launching and mooring were at full capacity during the summer months. As maintenance began to wane, so did users. In the recent past, the site became less inviting, looking more like a private property rather than a public access site. Should the site be modernized, clean, and maintained, the number of users would greatly increase back to the historical numbers.

2002 WDOE oblique photo of the Snow Creek stream mouth located east of Neah Bay.

COST ESTIMATES/ ANNUAL MAINTENANCE COSTS

In the supplemental information of this report, several versions of preliminary cost estimates were developed. They include the following options;

1. Water system- upgrade
2. Bathrooms 2- ADA flushing no showers
3. Bathrooms 2 – ADA flushing with showers remodel and new
4. Bathrooms, 2 ADA Vault
5. New Rail launch in existing footprint with crane*
6. New dock with floats*
7. New mooring buoys*
8. New camp host site with power and water
9. ADA loading platform
10. Pedestrian Bridge
11. Camp site with power only/ power and water
12. New gravel parking
13. Stormwater treatment
14. Elevated Launch*
15. Lighting system
16. New septic
17. Full site demolition
18. Fencing/Gate
19. Signage/kiosk/tribal information
20. Mitigation costs (restoration of creek)

*- included in Mott MacDonald Technical Memo

These cost estimates were then bundled into project estimates based on the presence of a water system vendor, a camp host, both and neither.

REGIONAL RECREATION COSTS

Washington Coast and Western Strait of Juan De Fuca Water Access Fees

8/15/2018				Compiled by	L. Sater
		Moorage $/ft	**Launch**	**Dry Camping**	**Full Hookup**
Neah Bay		$ 1.00	$ 20.00	$ 25.00	$ 40.00
Sekiu		$ 1.00	$ 15.00	$ 30.00	$ 40.00
La Push	Quileute Marina*	$ 0.75	$ 15.00	$ 25.00	$ 45.00
Westport	Marina Totem RV & Trailer	$ 0.75	$ 8.00	$ 20.00	$ 35.00
	Average	**$ 0.88**	**$ 14.50**	**$ 25.00**	**$ 40.00**

* Moorage is $15 per vessel. $0.75/ft assumes 20' average boat length

ESTIMATED MAXIMUM REVENUE

Source	Rate	#Available	Days open	Occupancy	Usage/Yr	Total
Buoy Mooring	$ 15.00	12	120	0.75	1080	$16,200
Float Mooring	$ 20.00	12	120	0.75	1080	$21,600
Launching	$ 10.00		150		1500	$ 15,000
RV Hookup	$ 40.00	16	120	0.75	1440	$ 57,600
RV Dry	$ 20.00	10	150	0.6	900	$ 18,000
Tent	$ 15.00	10	150	0.6	900	$ 13,500
				Max. Income		$141,900

POSSIBLE COMBINATIONS

- Full amenities including campground at both upper and lower site with caretaker, water system, and boat launch, pier, mooring floats and buoys. Open Seasonally.

- Typical WDFW – vault, lighting, typical self-launching ramp with floats, non-potable water. No camping, just parking. Open year round.
- Primitive WDFW- vault , minimal safety lighting, hand launch, parking. Open year round.
- Hybrid Option of full amenity camping at the upper site and typical WDFW at the lower site. Seasonal and year round operations. Option of adding all mooring options as vendor is secured. (Preferred Option)

Option 1 – Full time caretaker:

Project Scope

To provide all the historic functions of the Snow Creek Resort, including boat launch, floats, mooring, camping, running water, and powered campsites, a full time seasonal staff would be required to operate and maintain the facility, as well as provide security and collect fees. With a full time staff May-September, the water system could be adequately tested and operated so showers and flush restrooms would be possible. Overnight camping and RV hook-ups could be allowed. Floats and mooring buoys could be installed, and monitored during periods of rough weather and removed as necessary. A boat launch could be operated, monitored, and maintained.

Project Requirements

Demolish all existing infrastructure except restroom structure. One full time staff, new resort model mobile home, new boat ramp construction, new float construction and installation, new septic system, new electrical throughout the site, gravel entrance, restart water system, delineated parking areas, new helical screw type mooring anchors. Remodel of restroom and showers would allow for ADA accommodation. In addition, a year round security plan would need to be implemented to prevent vandalism and theft in the off season.

Project Income

Sources of income would come from any approved fees including launching fees, mooring fee, Discover Pass fee, camping fees. Annual revenue would be similar to the $141,900 identified in the Maximum Income section.

Project Costs

Capital costs for all project options are shown in the supplemental information. Operating costs for option one would require staffing, water, power, supplies, and equipment for float removal and installation, landscaping maintenance and cleaning. Capital improvements for maximized revenue are identified as $3.4M in capital construction costs.

Option 2-No water system vendor

Project Scope and Requirements

The water system requires daily or twice daily monitoring to meet Ecology and Department of Health standards. Without a designated water system monitor there cannot be public water. Without potable water a dry campground, parking, mooring, and boat ramp could be feasible. The only requirement would be a camp host that could monitor activities and collect fees. The project could consist of ramp, floats, mooring, dry camping, primitive tent camping, parking. The

project as an access site would still be required to have adequate restroom facilities. As with option 1, the site would be demolished, vault toilet systems would be implemented at either the waterfront site or at both sites. A discussion on preserving water rights and the possibility of non-potable water uses would be needed. The site could still functionally support water access, picnic tables, wildlife viewing. Most of WDFW access sites do not have water available. This option would be consistent with other similar launches and water access owned by WDFW.

Project Revenue

Revenue over option 1 would be reduced due to lack of hook-ups. Overall occupancy may also be reduced as most RV users prefer water availability. Revenue reduction is estimated at $28,800, in changing revenue for full hook-up to dry camping. Total annual revenue would be closer to $113,100.

Project Costs

Project costs for option 2 would be the equivalent of option 1 with a reduction in cost for the restroom facility rebuild and a reduction in the need for a screened surface water intake, reducing the cost by $200,000 or more. Restroom construction would be reduced by close to $100,000 and septic could be eliminated for an additional $46,000 in savingsHowever, in the last several years over $100,000 has been invested into the water system to keep it operational. That investment would not be recoverable if the water system is abandoned. The site would still generate a consistent revenue source through camping, mooring, and launching. Cost for construction without water is estimated at $3.1 M.

Option 3 – No water, no caretaker

Project Scope and requirements

Without a daily and consistent on site presence or if a vendor caretaker contract cannot be secured, the site would not be able to support camping, have flush restrooms, or any mechanically operated improvements. Without an onsite presence, the availability of mooring buoys and extended floats would be compromised as there would be no one to respond quickly to storms or high winds that may damage any floats or buoys that extend beyond the protected cove. All amenities would be designed to minimize and avoid maintenance. There would be a drastic limitation of landscaping, amenities subject to vandalism or theft such as picnic tables, but there would be an abundance of parking, vault toilets, and basic water access for most tides. Without a caretaker, upgraded security would be needed to prevent and deter theft and vandalism.

Project Revenue

Without an onsite caretaker, it would be unlikely that this project would generate any revenue. A presence to accept fees would not exist. The site would rely on capital funding and access area maintenance funds to stay open. As with most WDFW sites, the vault toilets would be serviced and seasonal mowing would take place. Because this site is remote and not near any other WDFW sites, there would be an increase in maintenance funding required as it would take the maintenance staff nearly a full day to visit just this site.

Project Costs

Project costs for this "typical" WDFW site would be primarily demolition as with the other two options, formal and informal parking lots, stormwater, boat ramp, and fewer floats, but still require significant mitigation. An estimated construction cost of $2.5M would be necessary.

Option 4 – No in-water permits

Project Scope and Requirements

Due to the highly sensitive nature of developing anything within the Strait of Juan de Fuca or Salish Sea, there is a risk of not receiving a DNR aquatic lease or not receiving a Corps permit. More than likely, with adequate mitigation, these in-water requirements are feasible, but may take a several years to obtain. Without permission to construct below the mean higher high tide line, the site would be limited to a vault toilet, parking, and car topper type boat launch. This is typically what WDFW refers to as a primitive site. Only boats managed by hand that can negotiate the sand could launch. The site would still be popular with kayakers, divers, bank fishermen, wildlife viewers, and picnickers. The site would need more significant security measures to protect against vandalism.

Project Revenue

There would be no revenue with this option.

Project Costs

Costs would be simplified to demolition, vault toilets, security and parking. Mitigation would be minimal. For development of upper and lower sites, with hand launch would be $663,000 in construction costs.

Other Project Costs

Regardless of the level of construction, a series of engineering, permitting, and project management costs will apply to all options. Cultural reviews, geotechnical reviews, septic decommissioning, environmental and development permits, and contracting costs will all apply. Those costs are generally a percentage of the total construction cost or a flat fee. Other project costs for the above listed options will range from $180,000 for a primitive site – $750,000 for all options.

SUMMARY

As part of the feasibility process, we were able to determine that it appears to be feasible to design and construct the amenities that the public is looking for. The infrastructure that would generate revenue to offset maintenance costs would include mooring floats, mooring buoys, and full hook-up camping sites with power and running water. These options are highly desired by the boating and fish public. Because the Snow Creek Resort has historically been a very popular fishing site for fishers from all over the Pacific Northwest, and because it is feasible, WDFW is proceeding with the request to design and permit a destination resort, meeting all of the current environmental and engineering standards. WDFW will continue to work closely with the

community to make sure that all aspects support the community and not undercut or compete against the small businesses in the area, while providing the fishing and boating public a safe and efficient boat launch. Finding and maintaining a full time seasonal caretaker is the key to being able to operate the site at the highest level. In addition to design and grading, over the next biennium, WDFW will develop a clear contract with expectations and develop relationships in the community to facilitate the design process. Although a significant capital expenditure is required, it is economically feasible to support the maintenance of the site through fees collected by an onsite caretaker or vendor. The capital costs are offset by the development of an exceptional fishing opportunity that is a destination boating and fishing opportunity in an area that is incomparable to anything else. The value of the opportunity cannot be overstated.

Tab C
Technical Memo

MOTT MACDONALD

Technical Memorandum

Snow Creek Resort – Marine Facility Feasibility Assessment

1. Introduction

The Snow Creek Recreational Site is located east of Neah Bay, WA on a 7.42-acre parcel purchased with a 1978 Land and Water Conservation Fund Boating Facilities Grant. The site was operated by a contracted vendor until the site closed in 2017. The site included a marine rail launch, access pier, moorage floats, upland campground, and restroom facilities. Washington State Department of Fish & Wildlife (WDFW) is investigating the feasibility of site improvements for the purpose of public water access for boaters (both hand carry and motorized) with a focused use on fishing, camping, and bird watching. This technical memorandum summarizes the results of a feasibility-level assessment conducted for the nearshore and marine elements for the site improvements. Upland improvement assessment work was conducted by WDFW.

2. Basis of Design

The Snow Creek boating facility improvements will be evaluated for improvements to support trailerable type recreational vessels up to 26 ft. in length. Criteria for conducting the feasibility assessment were developed and coordinated with WDFW and are documented in the Basis of Design Memorandum (See Appendix A). The criteria provide the basis for this feasibility-level assessment work.

3. Site Assessment

A site assessment was conducted to review the existing conditions at the property. The assessment consisted of a site visit on July 30, 2018 and a desktop review of available information (coastal, geologic) utilizing a combination of data, reports, and information compiled from WDFW and Mott MacDonald databases. A summary of the site assessment is outlined in Appendix C. The site assessment consisted of the following elements:

- Site Visit. Reviewed existing site conditions. The site is located within a sandy pocket beach contained with bedrock outcroppings. The existing site is not operational. A hand launch boater was using the site to launch for nearshore fishing.
- Coastal Processes. A review of coastal processes for the site was conducted based on the site visit, review of existing literature, and prior nearby Mott MacDonald project work (Mott MacDonald, 2017). The following is a brief summary of the results of the assessment:
    - Wave Exposure. Wind-waves with significant wave height of 3.5 ft. within the project area should be expected. Longer period swell should be anticipated as well.

- Geomorphology. Seasonal variation in the sandy beach profile should be expected due to the wave exposure at the site. Special design and maintenance considerations for an at-grade boat ramp would be required.

- Geologic Conditions. The site is located in a pocket beach with extensive exposed bedrock in the nearshore and offshore areas. For purposes of this feasibility study, shallow bedrock will be assumed in all locations of the proposed marine improvements.
- Flood Hazard. The project is located within an area subject to coastal flood hazards. Close coordination between Clallam County Planning regarding FEMA flood zone elevations will be required for any nearshore upland improvements.
- Historical Use. Prior operations consisted of a marine rail launch, access pier, moorage floats, and mooring buoys. The floating structures were seasonal and anchored with mooring lines and not attached to piling due to the shallow bedrock. The shoreward end of the moorage floats were installed at a location that would ground out during lower minus tides. The bottom of the marine rail launch was estimated to be approximately -1 ft. NAVD88.
- Shoreline Master Program (SMP). Clallam County SMP requirements allow public boating facilities for this location but have specific requirements that would need to be incorporated into the site and facility design.

4. Boating Facility Improvement Features and Concepts

Scoping of boating facility improvement features for evaluation in the feasibility assessment were discussed with WDFW. The following boating facility improvements were considered for the conceptual design:

- Launching
  - Boat Ramp (elevated and at-grade)
  - Marine Rail Launch
  - Hand Carry Boat Launch
- Moorage
  - Floating Docks with Shore Connection Pier
  - Mooring Buoys

Combinations of the above features could be possible as part of the boating facility improvements. Feasibility-level plans for each of the alternatives are provided in Appendix B and include various combinations of the concepts as follows:

- Concept 1 – Access Pier & Moorage with Elevated Boat Ramp
- Concept 2 – Elevated Boat Ramp with Mooring Buoys
- Concept 3 – Access Pier & Moorage with Marine Rail Launch

4.1. Project Site Constraints

The following are a listing of project site constraints which were noted as part of our feasibility assessment which were considered in the feasibility assessment and would need to be considered in the next phase of design for a selected preferred overall facility improvement:

- Beach Slope
  - The existing beach slope is approximately 8 percent. Boat launch facility standards require a slope of 12 to 15 percent for launches and for marine rail launches the slope shall follow the grades of the beach (WAC 220-660-390), but actual slope for operations can vary depending on whether it is a power or gravity launch system. The existing beach slope is too shallow to support an on-grade boat launch, thereby requiring some type of elevated structure to achieve the required slopes.
  - The toe of the existing rail launch is -1 ft. NAVD88. There is a break in slope at that location, resulting in a flatter offshore slope. Flatter slopes create a more challenging design to extend out beyond that -1 ft. contour, which result in challenging conditions for launching larger vessels.
- Offshore Water Depths
  - As outlined in the basis of design, critical depths for moorage floats and buoys are -6 ft. NAVD88 and -11 ft. NAVD88, respectively. Those depths are offshore approximately 235 ft. and 300 ft. from MHHW line, requiring a large distance for a new pier to access floating docks or a long distance for tender boats to access mooring buoys.
- Macroalgae, Kelp and Marine Vegetation Considerations
  - Eelgrass and Kelp Beds. Kelp beds exist offshore within the zone of approximately elevation -7 ft. to -13 ft. NAVD88. All structures will be located outside of the footprint of the kelp beds. Eelgrass is assumed to not be present and would need to be verified for the zone of elevation -1 ft. down to -9 ft. NAVD88. All catenary mooring systems (for buoys or float support option) shall have mid line buoys to prevent the chain from dragging on the seabed.
- Facility Operations
  - Marine Rail Launch Operational Requirements. Operation of a marine rail launch for compliance with WISHA and OSHAA worker safety requirements for operations of the rail launch. Marine rail launch systems are typically not certified for human occupants and therefore would need to have some form of parallel dock to aid in the "tendering" of the vessel from the rail launch to an adjacent float system. The type of system is unique to the state and federal safety requirements and therefore not well defined. In some cases, marine rail launch systems with occupants are treated as an amusement park ride type facility requiring special safety equipment and procedures.
- Coastal Conditions
  - Exposure. The project site is located on exposed Strait of Juan De Fuca shoreline a short distance east of Neah Bay. Ocean swell is present within the areas a short distance offshore from the kelp beds and a large wind-wave exposure exists for the shoreline areas. Boat launch facilities typically are limited to wave heights less than 12 inches to protect the safety of users and vessels. Given the wave exposure, downtime at the site should be expected. Seasonal use should also be considered to limit the exposure to frequent higher wave events associated with the fall to spring time periods. A 2-year return period wind-wave for the project site location is estimated to be on the order of 3 to 3.5 ft. significant wave height.

- Pocket Beach. Sand beaches with exposure to long duration storm waves are susceptible to large seasonal variations to their profile. An at-grade boat ramp at this location is not recommended and therefore would require an elevated, pile-supported structure for a boat launch.

- Geology
  - The area has exposed basalt bedrock both on the shoreline and offshore areas. All support piles will likely require the installation of rock sockets or drilling work to get adequate embedment length for lateral stability.
  - Rock anchors with mooring lines could be installed for moorage floats in lieu of piles, but would require the use of divers for removal and installation. The mooring system would be required to be a sea-flex or similar type of system to not allow a catenary chain mooring system to drag on the seabed.

- Upland Area Limitations
  - Launch systems would require parking stalls for trailers at a greater number than if no launch were provided onsite. Guidance for a single lane boat launch recommends a range of 15 to 45 stalls be provided onsite.

5. Boating Facility Improvement Evaluation

The following sections provide a description of each of the boating facility improvements being considered based on the review of project site constraints, basis of design, site assessment, and feasibility assessment.

5.1. Elevated Boat Ramp

An elevated boat ramp system would be preferred at this location due to the beach conditions (geomorphic processes and slopes) versus an at-grade system (See Figure 1). An elevated ramp is a precast slab system supported by pile bents very similar to a vehicle accessible public access pier. The deck is constructed of precast concrete slabs supported by pile bents composed of concrete pile caps and steel or concrete support piles. The ramp would be a single lane with handling float grounding on the elevated concrete ramp surface.

The following are a range of requirements for an elevated boat ramp:

- A minimum 2 to 3 ft. of water depth (depending on vessel length) at the base of the ramp is recommended to have sufficient water to launch the design vessels. A toe of ramp elevation -2 ft. NAVD 88 (as shown in the concept plans) would provide use at water levels at 0 or +1 ft. NAVD88 and higher water levels. The ramp would be operational at water levels of 1 ft. above MLLW level and higher.

Handling floats are required if a pier and moorage float system are not installed. An elevated ramp without handling floats and a pier could be possible but is less efficient and requires more time for launch and retrieval.

Figure 1. Example elevated ramp system

5.2. Marine Rail Launch

A marine rail launch could be provided in lieu of a traditional trailer boat launch ramp facility. A rail launch system would consist of a hoist frame, carriage, rail launch system, and handling float (See Figure 2 for rail launch and handling float elements). Vessels on trailers would be backed under a hoist frame, lifted off the trailer, and set onto the carriage system. The carriage would then be operated down and back up the rails utilizing a powered push-pull cable loop system. The hoist frame could be similar in concept to that used at the site in the past (see Appendix B). A handling float installed adjacent to the marine rail launch would be required to "tend" the lines for the launching vessel and to provide access for the vessel operator to depart prior to carriage operations for incoming vessels and to board departing vessels. This would eliminate the need for human occupied operational design considerations for the rail launch system. The rail launch would be supported by steel pipe piles with pile caps to support the steel rails. The handling float would include steel pipe support piles with removable pile hoops for ease of seasonal float removal and installation.

Figure 2. Example marine rail launch

Operation of the marine rail launch system by trained site personnel would be required. Since the use of a marine rail launch involves a degree for risk to those involved, proper training and development of an operations procedure would be required. The purpose of this procedure is to reduce the risks to all involved to as low as is reasonably practicable by identifying the key activities and people. The following are a range of requirements for a marine rail launch system that would affect the operations and maintenance:

- An operations manual would be required for the system installed.
- Safety training for all personnel operating the system.
- At least two staff persons required to conduct lift and marine rail launch operation.
- No persons on board during lifting or launching operations.
- Owner of vessel should be present.
- Pre-lift and launch/retrieval checklist.
- Cable, winch, and lift mechanism routine inspection and maintenance would be required for the saltwater and high marine growth activity environment to ensure continuity of safe and reliable operations. Pulleys, cables, and axle bearings may require replacement on a 2- to 5-year cycle.
- A handling float would be required to meet operational requirements.

5.3. Access Pier, Gangway, and Moorage Floats

An elevated pier and gangway for public access to floating moorage was evaluated. The facility would include a shore connected fixed pier constructed of aluminum truss bridges supported on pile bents, a gangway, and moorage floats. A representative example of the

system is shown in Figure 3 which is the WA State Parks James Island moorage facility constructed in fall of 2017. Important operational and design details of this type of facility include the following:

- A steel head frame would be provided to lift and store the gangway for seasonal removal of the moorage floats.
- Float type to be determined. For the feasibility assessment it was assumed to be timber frame with floatation tubs, which are common at other boating facilities with similar coastal exposure conditions.
- Moorage floats to have internal, removable gated pile hoops to allow moorage on both sides and ease of removal.
- A gangway would be provided at a minimum 80-ft. length to meet ADA requirements.
- Moorage floats required to be waterward of the -6 ft. NAVD contour to ensure no float grounding.
- The pier and moorage float feature could be used in combination with either onsite (marine rail launch or elevated boat ramp) or offsite vessel launching (Neah Bay).

Figure 3. Example moorage float system

5.4. Mooring Buoys

A mooring buoy is an anchored float used to secure boats offshore in areas deeper than intertidal zone, as shown in Figure 4. Mooring buoys consisting of a single point mooring system (SPM) and typically include a buoy, mooring line (chain, rode), and anchor, and allow the vessel to swing around to the predominant wind, wave, and tidal current direction. Adequate spacing between mooring buoys is required to provide a safe swing radius which is determined by the largest vessel size, anchor rode length, and water depth. Vessels can safely moor on buoys at much higher wind and wave conditions than a traditional moorage dock

facility. The following are additional considerations for installation of a mooring buoy at the site:

- All buoy anchors to be located further waterward than a 7-ft. depth at extreme low water.
- The location of mooring buoys to meet WA DNR requirements will require vessel users to utilize a skiff for a distance of 400 to 600 ft. if no shore connected floating dock system is provided.
- It is highly likely that shallow bedrock exists within the project area, which will require a diver-installed rock anchor with eye bolt for the buoy line anchorage system.
- County SMP requirements have a limitation on the density of buoy fields.
- Routine inspection and maintenance of the mooring tackle is required to ensure continued safe use.

Figure 4. Example mooring buoy system

5.5. Hand Carry Vessel Launch

A non-motorized hand carry launch facility could be provided in addition to the power boat facilities. These could accommodate sea kayaking activities for wildlife watchers and fishermen. A hand carry launch could share an at-grade boat ramp or be a special purpose built low freeboard float supported by the power boat moorage docks. An example of a hand carry vessel launch float is shown in Figure 5. The following are additional considerations for a hand carry facility:

- If an elevated ramp is provided at the site, a hand carry launch float may not be needed. Additionally, if a marine rail launch is selected, it should be sited within the pocket beach

to still provide hand carry launch capacity within the remaining beach to accommodate those users.

- A hand carry float system could be a pre-manufactured system similar to that shown in Figure 5, or a custom manufactured timber or aluminum frame float system. The float system would provide 100% accessibility for all tide level use. All hand carry floats would need to be low freeboard (6 to 9 inches).

Figure 5. Hand carry launch system (Port of Anacortes Cap Sante)

6. Estimated Construction Costs

Construction costs were developed for each boating facility feature based on the feasibility-level engineering assessment and the plans shown in Appendix B. A detailed summary of the costs for each feature are provided in Appendix D. The following summarizes the range of costs for each feature and the associated assumptions and limitations for the cost estimates:

- Estimated Construction Cost
  - Pier, Gangway, Floats – $1,250,000 to $1,500,000
  - Elevated Concrete Ramp – $1,700,000 to $2,100,000
  - Elevated Marine Rail Launch – $950,000 to $1,200,000
  - Mooring Buoys – $65,000 to $90,000
  - Hand Carry Launch Floats – $170,000 to $215,000

- Assumptions and Limitations
  - The intent of providing estimated costs is to provide an order of magnitude estimate for developing a master scheme for waterfront boater access improvements for the property.
  - Each of the costs are for the individual feature costs and not combined costs for the concepts shown in Appendix B.
  - Costs include an assumed 18% of subtotal to cover mobilization and onsite incidentals for surveying, environmental protection, and other miscellaneous minor project costs.
  - Costs provided are based on experience and our assessment level description of scope of construction work based on a site visit and prior experience with similar improvements. Additional engineering analysis and design would be needed to better refine the scope of construction and materials for each item, and therefore the corresponding estimated cost.
  - Costs assumed construction work is hired out and not self-performed by WDFW.
  - Cost information is variable depending on the economy and local contracting industry conditions.
  - Costs provided assume local sales tax and a 25% contingency.
  - Costs for engineering and regulatory permit assistance are not included.

7. Conclusions

The following summarizes our key conclusions based on the results of our feasibility-level analysis:

- General
  - A marine facility at this location should be limited to a seasonal, summer fishing recreational use period. This is similar to facilities operated by WA State Parks in the San Juan Islands. Gangways are hoisted, and floats are removed and relocated to a secure, upland location for the non-recreational season.
- Marine Rail Launch
  - A marine rail launch requires the installation of handling floats which ground out with the water level but extend out to the end of the rail launch.
  - A marine rail launch is a custom design and operational system requiring continuous safety training and maintenance that is not required of the other facility features being evaluated. A marine rail launch will require substantially more labor to operate and annual cost to maintain as compared to the elevated boat ramp.
  - Installation of piles will require specialty drilling equipment and correspondingly will be approximately twice the cost of traditionally driven piles to support the structures.
  - Limit the size of the marine rail launch to a smaller size vessel (21 ft.) than for an elevated boat ramp (26 ft.).
- Launch Facilities
  - Downtime for the boat ramp and marine rail launch is estimated to be approximately 30% of time as a result of low tides which occur below the operational limit of the ramp. Reducing the downtime would cost incrementally more on a per foot basis to extend further out due to the site conditions.

8. Next Steps

The following are key elements that would need to be considered for implementation of the alternatives that were evaluated in this feasibility assessment:

- Geotechnical Investigation. Conduct a site reconnaissance of the intertidal and nearshore uplands to aid in the design of the structures. This should include a geotechnical boring in the nearshore zone to determine the type and strength of the rock, as well as probing to determine depth to bedrock along the alignment of the structure.
- Wave Analysis. Conduct a wave analysis for the recreational season time period to develop design criteria for the floats.
- Kelp/Macroalgae Survey. Conduct a survey of the area and add to the survey base map to aid in the final layout and design for site planning and permitting.

9. References

Mott MacDonald. March 10, 2017. “Technical Memorandum: Neah Bay Proposed Placement Site Analysis”.

APPENDIX A

Basis of Design Memorandum

MOTT MACDONALD

Basis of Design
Snow Creek Resort – Marine Facility Feasibility Assessment

Mott MacDonald has prepared a basis of design for the marine facility improvements at the Snow Creek Recreational site feasibility assessment. This basis of design does not cover any upland and landside improvements.

1. Public Use

The intended public use for this facility is water access for boaters (both hand carry and motorized) with a focused use on fishing. The beach is classified as a small, sandy pocket beach with rock outcroppings on both the west and east edge. There is no nearby connection to an adjacent sandy beach.

Salmon and bottom fish areas are located immediately adjacent to the facility attracting hand carry and smaller trailerable boats. Fishing is also available offshore in the Strait of Juan De Fuca and Pacific Ocean attracting a combination of medium to larger size trailerable Boats. The Neah Bay marina has launching and moorage to accommodate larger size vessels.

2. Operations

The facility is intended to have staff or a site manager while operational. The marine facility is intended to be seasonal from May 1 to September 30. Floating structures would be removed during the non-recreational period for protection from winter storms. Floats are assumed to be stored nearby in the uplands. Access gangways would be provided with a frame for lifting and storage during off-season time periods when float is removed.

3. Property Ownership

The upland parcel is owned and managed by WDFW. The upland parcel extends out into the tidelands a short distance. Waterward of the WDFW parcel is Washington Department of Natural Resources tidelands. A tideland lease would be required for the marine facility that extends beyond the WDFW parcel.

4. Flood Zone

Based on review of the FEMA (2001) Flood Insurance Study for Clallam County, the nearshore area of the project site is located in a FEMA designated V-zone, indicating that it is an area within the 100-yr coastal flood with velocity (wave action) but does not have a determined base flood elevation. The upland area of the project site is located in the FEMA designated A-zone, indicating that it is an area within the 100-yr flood but does not have a determined base flood elevation. Although the FEMA (2001) Flood Insurance Study for

Clallam County does not provide based flood elevations for the project site, it does identify +8.1 feet NGVD29 (11.8 ft NAVD88) as the 100-year still water elevation for Neah Bay (approx. 3 miles away). The 100-year flood level for the upland area of the Snow Creek project site can be assumed to have a similar value as Neah Bay. Further investigation will be needed prior to advancing the design in the next phase.

5. Shoreline Master Program (Clallam County)

The project site is regulated by the Clallam County Shoreline Master Program. The following requirements from the SMP were outlined as applicable to the concepts being considered for the Snow Creek redevelopment:

- Site Designation: Marine Waterfront SED
- Boating Facilities & Moorage (Section 4.2)
  - Permitted use.
  - Avoid the need for future maintenance dredging.
  - No float grounding on tidelands.
  - Minimize shading of aquatic habitats.
  - No impact to sediment transport processes.
  - Located to minimize conflict with hazards and obstructions.
- Mooring Buoys
  - Not greater than 4 buoys/acre density for buoy field.
  - No closer than 100 ft. from other piers, floats or buoys.
- Boat Launches.
  - Provide adequate restoom and sewage and waste disposal.
  - Provide ample parking spaces for trailers.

6. Coastal Conditions

The project site is located on the south shore of the Strait of Juan de Fuca (Straight) east of Neah Bay. A rock reef and pinnacle feature (Seal & Sail Rocks) is located offshore to the northwest which provides some sheltering of the shoreline from northwest waves. The Straight exhibit a combination of deep water ocean swell and locally generated wind waves. Offshore from the project site in deeper water (beyond -20 ft.) and beyond the rock reef, some long period waves exist. The long period waves are not as prevalent in the nearshore zone. The shoreline of the project site is exposed to wind waves with relatively large fetch distances to the northeast and northwest. The estimated peak wave (for the recreational time period) is 3 ft. for the area at the end of the old floating dock system.

Clallam County Western Strait Sub-Region Nearshore Assessment characterized the site as old marine sediments with alluvial deposits, nearby kelp beds and adjacent snow creek is severely impaired. No appreciable sediment drift as it is classified as a pocket beach. The beach accumulates sediment derived from fluvial sources (nearby snow creek).

Tidal Elevations for the project site (based on Neah Bay tide gauge):

- Extreme High Water = +11.62 ft. NAVD88

- Mean Higher High Water = +7.12 ft. NAVD88
- Mean Lower Low Water = -0.68 ft. NAVD88
- Extreme Low Water = -4.62 ft. NAVD88

7. Geotechnical Conditions

A site specific geotechnical investigation has not yet been conducted. Based on a review of the site conditions and existing literature, the following was developed for use in conducting the pre-design work:

- Basalt bedrock (marine basal) present at site in nearshore and offshore.
- Shallow bedrock should be expected at all locations of the proposed marine facility improvements. Depth of coverage by alluvial sand/gravel material is likely 0 ft. to 10 ft.
- Prior access pier construction installed pile without embedment into bedrock. Lateral bracing system was used. Floats were anchored with chain; no piles used to due presence of bedrock.
- Alluvium cover is too shallow to provide for sufficient driven pile embedment. Any structures requiring pile support will require socketing (drilled) of the piles into the bedrock a minimum distance of 10 ft. of competent rock.

8. Marine Habitat, Kelp Beds & Seagrasses

An onsite habitat assessment has not yet been completed at the time of the feasibility assessment work. Kelp beds do exist offshore from the facility and were delineated from aerial photographs. The new facility improvements shall have no impact to the kelp beds.

9. Vessel Type, Size, Number

The following type, size and use are assumed for the design vessels as a basis for the layout and concept design of the marine facilities.

- Type: Trailerable type fishing style vessels.
- Number: the number of vessels to be accommodated depends on the type of facility being provide as follows:
  - Floating Docks: 12 to 15 vessels; for sizing utilize a mix represented by average vessel size (average of medium and large class ~22 ft.).
  - Mooring Buoys: 10 to 12 vessels; assume large class for geometric layouts.
- Size: Depends on user and destination. The following two vessel classes will be evaluated:
  - Large: 26 ft. Deep-vee hull fishing vessel.
    - Century 2600 Walkaround: LOA 26 ft., Weight: 6,500 lbs., Draft 15”.
  - Medium: 21 ft. and smaller partial vee hull and flat bottom hull type fishing boats.
    - North River Seahawk Outboard: LOA 20’8”, Weight 2,400 lbs., Draft 15”.

10. Vessel Moorage

Onsite moorage is desired for users of the upland overnight facilities. Vessel moorage would consist of the following components.

- Mooring Buoys. Single point mooring buoy for offshore moorage.
  - Type: Single Point Mooring System.
  - Number: Accommodate 10 to 12 large size vessels.
  - Location: Buoys shall be located offshore in depth sufficient to prevent vessel grounding. WA DNR guidelines require mooring buoy anchors to be set in water deeper than 7 ft. at Extreme Low Tide or for this site approximately -11.5 ft. MLLW.
  - Access: Dingy or kayak either to dock or beach.
- Moorage Floats. Floating docks constructed of timber or steel framing with grated decking.
  - ADA Compliant.
  - Width: Minimum 8 ft. width.
  - Use: Seasonal, removed during designated non-recreational period. Capable to be easily removed and towed to nearby location such as Neah Bay Marina or stored in the nearby uplands.
  - Access: Access to moorage from upland facilities to moorage from Fixed Pier and ADA compliant 80 ft. length aluminum truss gangway.

11. Boat Launch Facility

A boat ramp is desired at the site to accommodate a combination of hand carry and trailerable boats. The following criteria will be utilized for the feasibility design work:

- Boat Launch Alternative.
  - Lanes: Single Lane; 18 ft. minimum width.
  - Handling Float: Minimum 6 ft. width, desirable to be 8 ft. width.
  - Slope: 12 to 15%. Larger vessels desirable to be on steeper end of the range.
  - Material Type: Concrete ramp; combination of precast planks and cast-in-place.
- Marine Rail Launch Alternative.
  - Vessel Size: Medium or small vessels. Less than 2,500 lbs.
  - Minimum Water Depth for Launching (slope dependent): 2 ft.
  - Wind Condition Limit: Less than 12 knots.
  - Wave Condition Limit: Less than 1 ft. wave height.
  - Profile: Needs to be above the upper limit of beach profile seasonal adjustment and follow the slope of the beach.

12. Piers & Gangways

A fixed access pier from shore to the proposed floating moorage would be required to provide direct ADA pedestrian access. The following criteria will be used for the pre-design work:

- Pier. Truss type aluminum gangway

    - Width: 5 ft. minimum clear inside.
    - Surface: 100% grated.
- Gangway. Similar construction as pier with swing link at the top connection.
    - Width: 4 ft. minimum clear inside.
    - Length: Minimum 80 ft. for ADA compliance.
    - Surface: 100% grated.

13. Utilities

The following is assumed utilities for the new marine facility:

- Power, Water, Sewer. No new utilities are planned for the pier or moorage float. Power will be onsite for use on marine rail launch or other upland facilities.
- Lighting. Lighting may be provided on the access pier and gangway.

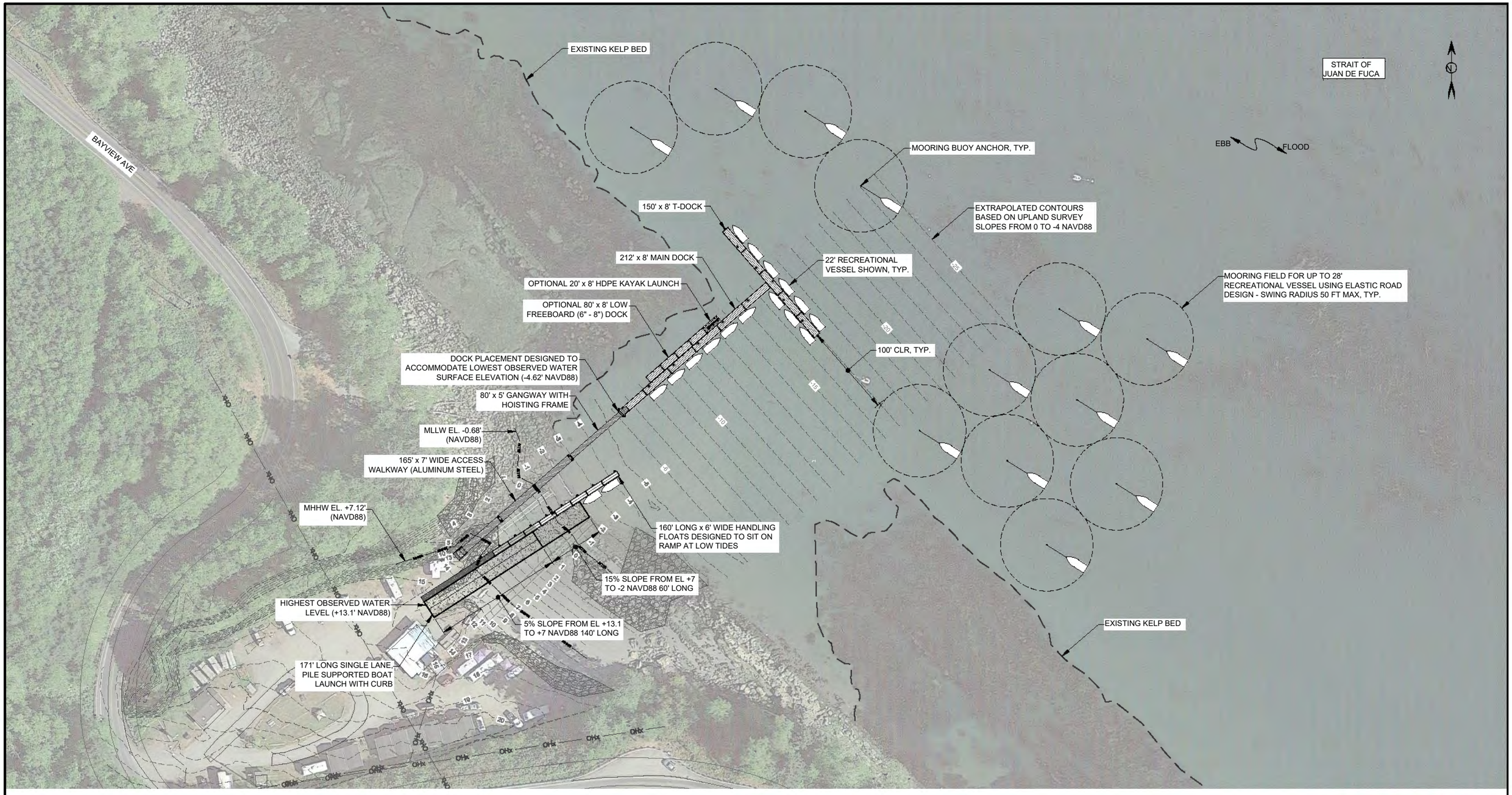
14. Design Standards

The following design standards and guidelines will apply to the feasibility evaluation of boating facility improvements:

- Oregon Marine Board – Design Guidelines for Recreational Boating Facilities, 3rd Edition
- States Organization for Boating Access (SOBA)
- American Society for Civil Engineers Planning & Design of Small Craft Harbors (ASCE)
- International Building Code Requirements (IBC)
- Americans with Disability Act (ADA) Requirements/ ADA Accessibility Guidelines (ADAAG) for boating facilities
- WAC Chapter 220-660; Hydraulic Code Rules

APPENDIX B

Feasibility-Level Plans



CONCEPT 1 - ACCESS PIER WITH ELEVATED BOAT RAMP

0 50 100

SCALE: 1" = 50'

DRAFT

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Client

Rev	Date	Drawn	Description	Ch'k'd	App'd
	8/31/18	TM	CONCEPTUAL DESIGN		57

Project Number 385629 | B/O 1 | Total 3

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at ANSI D	Status		Rev	Security	

Drawing Number

Title: SNOW CREEK BOATING FACILITY FEASIBILITY ASSESSEMENT

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EXISTING KELP BED

STRAIT OF JUAN DE FUCA

N

MOORING BUOY ANCHOR, TYP.

EBB

FLOOD

BAYVIEW AVE

EXTRAPOLATED CONTOURS BASED ON UPLAND SURVEY SLOPES FROM 0 TO -4 NAVD88

MOORING FIELD FOR UP TO 28' RECREATIONAL VESSEL USING ELASTIC ROAD DESIGN - SWING RADIUS 50 FT MAX, TYP.

100' CLR, TYP.

MLLW EL. -0.68' (NAVD88)

MHHW EL. +7.12' (NAVD88)

160' LONG x 6' WIDE HANDLING FLOATS DESIGNED TO SIT ON RAMP AT LOW TIDES

22' RECREATIONAL VESSEL SHOWN, TYP.

15% SLOPE FROM EL +7 TO -2 NAVD88 60' LONG

HIGHEST OBSERVED WATER LEVEL (+13.1' NAVD88)

5% SLOPE FROM EL +13.1 TO +7 NAVD88 140' LONG

EXISTING KELP BED

171' LONG SINGLE LANE, PILE SUPPORTED BOAT LAUNCH WITH CURB

CONCEPT 2 - ELEVATED RAMP WITH MOORING BUOYS

0 50 100

SCALE: 1" = 50'

DRAFT

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Client

Rev	Date	Drawn	Description	Ch'k'd	App'd
	8/31/18	TM	CONCEPTUAL DESIGN		

58

Project Number 385629 | B/O 2 | Total 3

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at ANSI D	Status		Rev	Security	

Drawing Number

Title

SNOW CREEK BOATING FACILITY
FEASIBILITY ASSESSEMENT

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EXISTING KELP BED

MOORING BUOY ANCHOR, TYP.

STRAIT OF JUAN DE FUCA

N

EBB

FLOOD

BAYVIEW AVE

150' x 8' T-DOCK

EXTRAPOLATED CONTOURS BASED ON UPLAND SURVEY SLOPES FROM 0 TO -4 NAVD88

212' x 8' MAIN DOCK

22' RECREATIONAL VESSEL SHOWN, TYP.

MOORING FIELD FOR UP TO 28' RECREATIONAL VESSEL USING ELASTIC ROAD DESIGN - SWING RADIUS 50 FT MAX, TYP.

OPTIONAL 20' x 8' HDPE KAYAK LAUNCH

OPTIONAL 80' x 8' LOW FREEBOARD (6" - 8") DOCK

100' CLR, TYP.

DOCK PLACEMENT DESIGNED TO ACCOMMODATE LOWEST OBSERVED WATER SURFACE ELEVATION (-6' NAVD88)

80' x 5' GANGWAY WITH HOISTING FRAME

MLLW EL. -0.68' (NAVD88)

144' LONG x 6' QUEUING AND HANDLING FLOATS WITH STEPPED SUPPORTS FOR LOWER TIDES

165' x 7' WIDE ACCESS WALKWAY (ALUMINUM STEEL)

MHHW EL. +7.12' (NAVD88)

6% SLOPE FROM EL +1 NAVD88 TO END LONG

10% SLOPE FROM EL +13.1' TO +1 NAVD88 106' LONG

HIGHEST OBSERVED WATER LEVEL (+13.1' NAVD88)

SINGLE CARRIAGE, PILE SUPPORTED MARINE RAIL LAUNCH - WINCH AND CARRIAGE SHED

EXISTING KELP BED

CONCEPT 3 - ACCESS PIER WITH MARINE RAIL LAUNCH

0 50 100

SCALE: 1" = 50'

DRAFT

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Client

Rev	Date	Drawn	Description	Ch'k'd	App'd
	8/31/18	TM	CONCEPTUAL DESIGN		

59

Project Number 385629 | B/O 3 | Total 3

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at ANSI D		Status	Rev	Security	
Drawing Number					

Title: SNOW CREEK BOATING FACILITY FEASIBILITY ASSESSEMENT

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APPENDIX C

Summary of Site Assessment

MOTT MACDONALD

WDFW Snow Creek Boating Facility

Site Assessment – Appendix C
8/31/18

WDFW

Snow Creek Project Area

- 3 miles East of Neah Bay
- On shoreline of Strait of Juan de Fuca

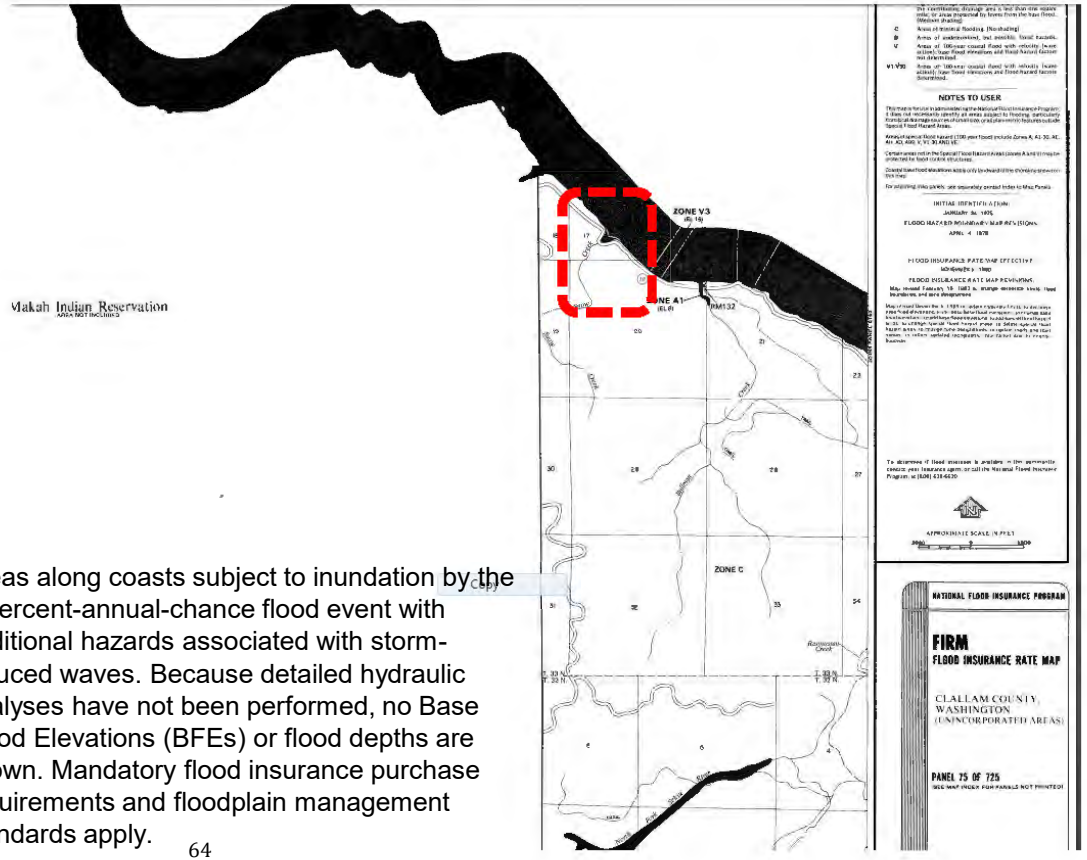
Snow Creek Project Area

- Historically used as boating access site run by private operator under contract of WDFW
- Seasonal Use
- Onsite trailer storage, camping, and cabins
- Use ended approximately 5 years ago

Snow Creek – Clallam County FEMA Flood Map

Circa 1978; revised 1983

- Flood Elevation = +8.1’ NGVD
- V3 = +16’ NGVD, not sure if it applies
- Project site is exposed to coastal flooding but hasn’t been mapped
- Likely somewhere between the 8.1’ and 16.1’ level
- Nearby creek is A1 in the creek estuary



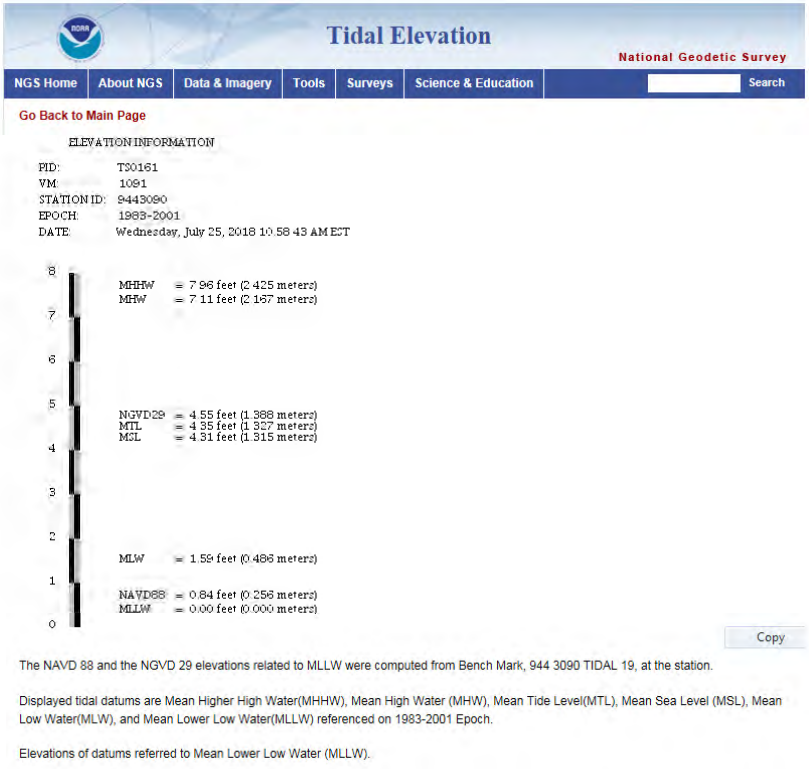
Areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

Snow Creek Water Levels

Source: NOAA Neah Bay

Snow Creek Tidal Datums

Source: NOAA Neah Bay



Tidal Elevation

National Geodetic Survey

NGS Home | About NGS | Data & Imagery | Tools | Surveys | Science & Education | Search

Go Back to Main Page

ELEVATION INFORMATION

PID: TS0161
VM: 1091
STATION ID: 9443090
EPOCH: 1983-2001
DATE: Wednesday, July 25, 2018 10:58:43 AM ET

Copy

The NAVD 88 and the NGVD 29 elevations related to MLLW were computed from Bench Mark, 944 3090 TIDAL 19, at the station.

Displayed tidal datums are Mean Higher High Water(MHHW), Mean High Water (MHW), Mean Tide Level(MTL), Mean Sea Level (MSL), Mean Low Water(MLW), and Mean Lower Low Water(MLLW) referenced on 1983-2001 Epoch.

Elevations of datums referred to Mean Lower Low Water (MLLW).

T I D A L D A T U M S

Tidal datums at NEAH BAY, STRAIT OF JUAN DE FUCA based on:

LENGTH OF SERIES:	19 YEARS
TIME PERIOD:	January 1983 - December 2001
TIDAL EPOCH:	1983-2001
CONTROL TIDE STATION:	

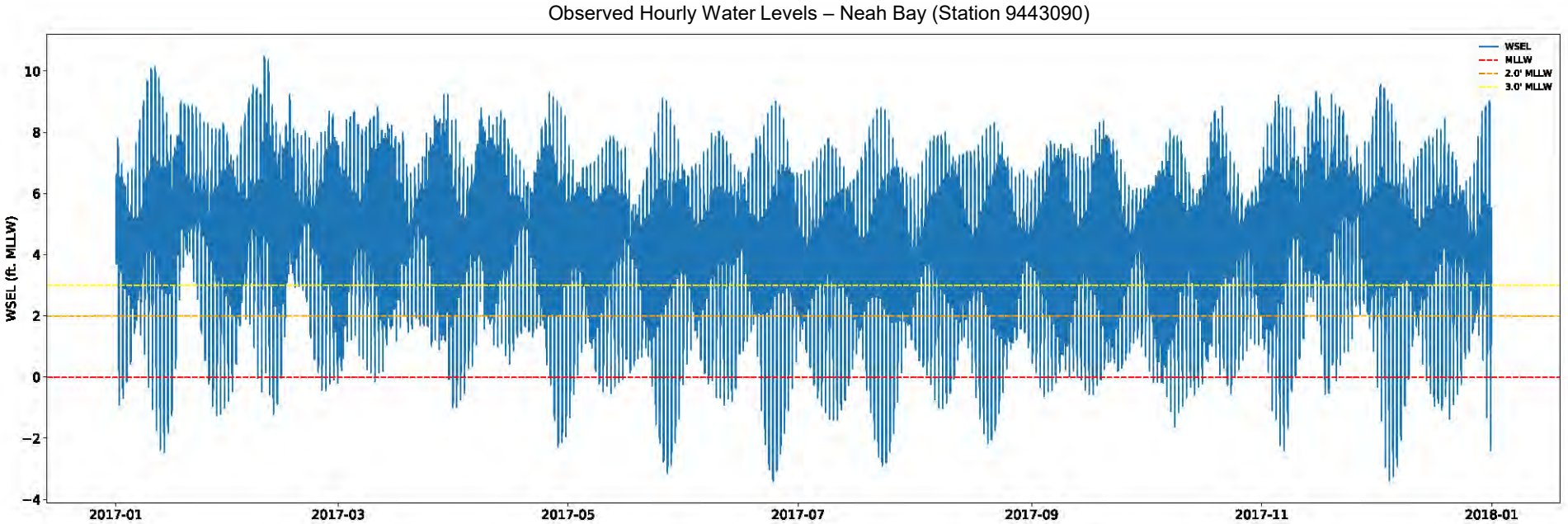
Elevations of tidal datums referred to Mean Lower Low Water (MLLW), in METERS:

HIGHEST OBSERVED WATER LEVEL (11/30/1951)		=	3.749
MEAN HIGHER HIGH WATER	MHHW	=	2.425
MEAN HIGH WATER	MHW	=	2.167
MEAN TIDE LEVEL	MTL	=	1.327
MEAN SEA LEVEL	MSL	=	1.315
MEAN LOW WATER	MLW	=	0.486
North American Vertical Datum	NAVD88	=	0.256
MEAN LOWER LOW WATER	MLLW	=	0.000
LOWEST OBSERVED WATER LEVEL (11/26/2007)		=	-1.202

North American Vertical Datum (NAVD88)

Snow Creek Water Levels

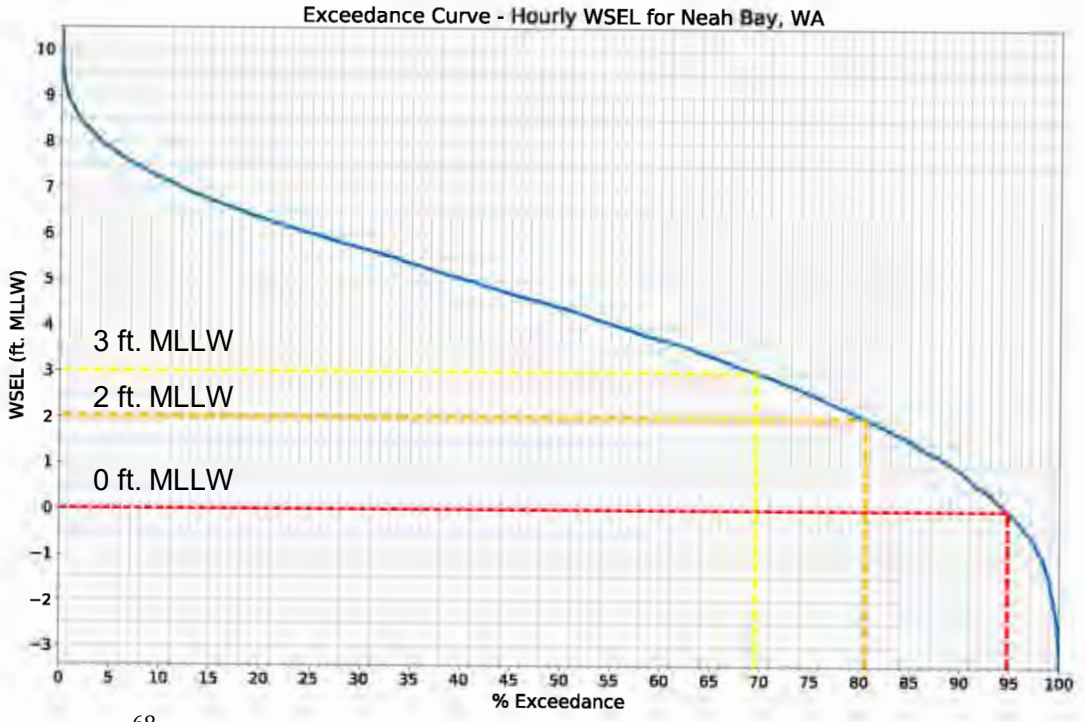
Neah Bay Observed WSEL Calendar Year 2017



Snow Creek Water Levels

Neah Bay – Exceedance Curve (2017)

Water Level (ft. MLLW)	% Exceedance
0.0	94.7
2.0	80.5
3.0	69.6



Wave Climate – 2 Year Return Period

2005-2016, Neah Bay

- Estimated wave heights assuming deep water, as wave growth occurs mainly in channel
- Checked for wave breaking assuming Hb/d = 0.78 at the end of existing float

Return Period	Wind speed (knots)	Wind direction (degrees)	H_s (ft.)	T_p (s)
2 year	24.5	0	3.0	3.1
2 year	28	45	3.7	3.4

*Note: Long period swell not evaluated

Snow Creek – Historical Photographs

Offshore View

- Land-based access pier
- Gangway
- Moorage Floats
- No pile supports
- Marine Rail Launch
- Sandy Beach

Snow Creek – Historical Photographs

Inshore View

- Land-based access pier
- Gangway
- Marine Rail Launch
- Office Building
- RV Parking
- Beach
- Shore Protection

Snow Creek – Historical Photographs

Marine Rail Launch

- Marine Rail Launch
- Sandy Beach
- No pile supports on floats
- Braced piles with minimal embedment

Snow Creek – Historical Photographs

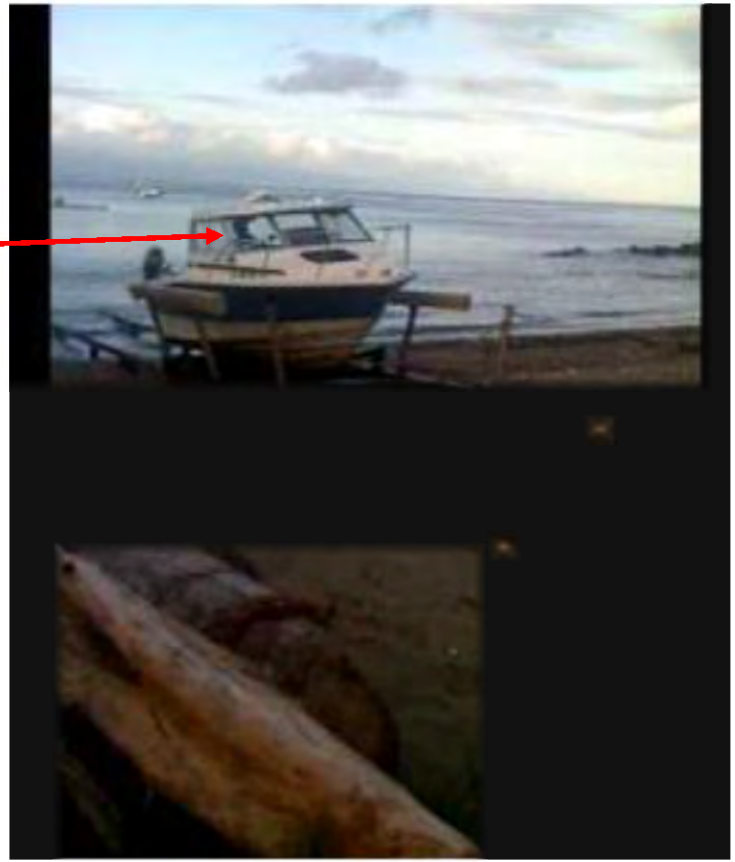
Marine Rail Launch Vessel Loading System

- Lift system required to remove and place vessels to/from trailer to carriage on the rail launch system

Snow Creek – Historical Photographs

Marine Rail Launch

- Bunk on Rail System
- Vessel Occupant Required during launching
- Tide Dependent Use
- Toe of Rail Launch: -2’ NAVD88



Snow Creek – Historical Photographs

Moorage Area

- Floats – Seasonal, no piles
- Shoreward end of floats
  - Bottom elevation -3.5’ NAVD88
  - Floats grounded at tides less than this level
- Seaward end of floats
  - Bottom elevation -21’ NAVD88

Snow Creek – Historical Photographs

East Shoreline

Snow Creek

Outlet Channel

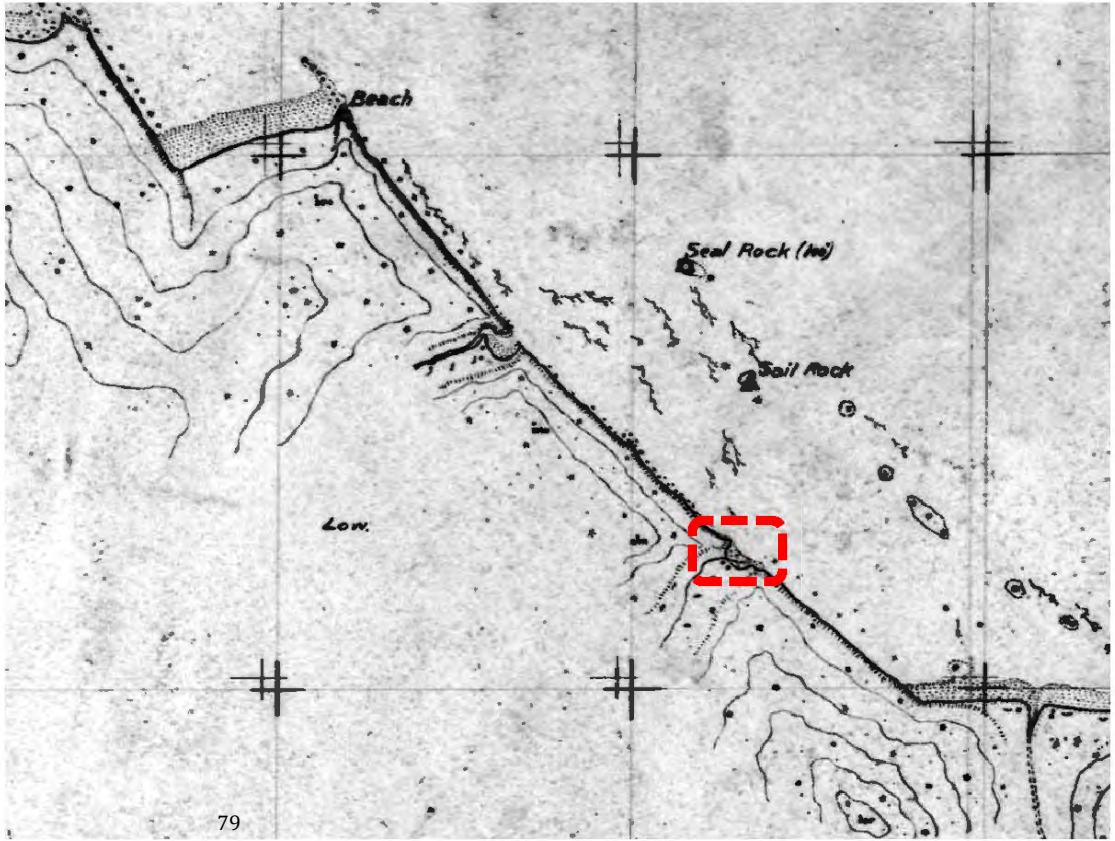
- Channelized Stream
- Likely delivers sediment to beach during high flows

Snow Creek – Current Condition

7/26/18

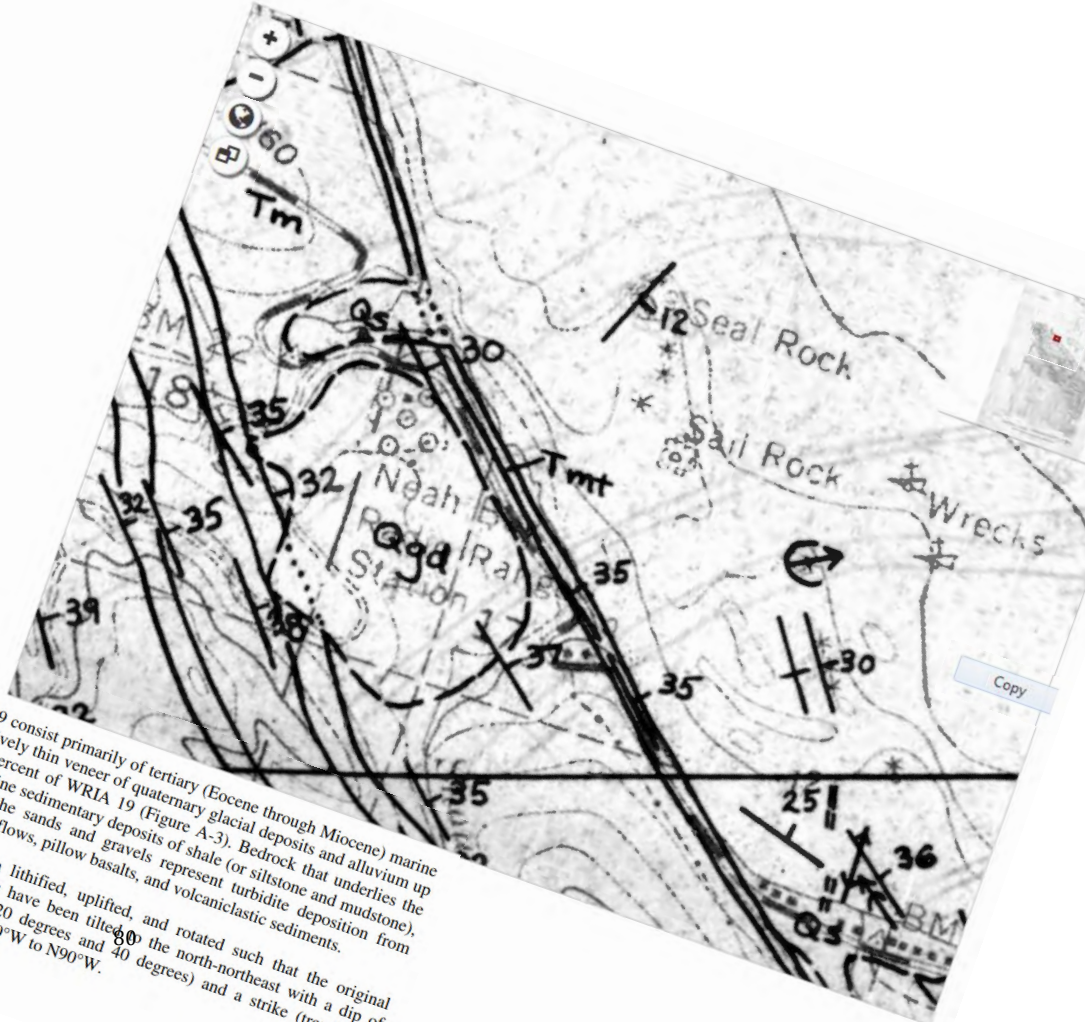
Snow Creek – T-Sheet 2908

- 1908-1909
- Creek outlet into pocket beach
- Creek shifted to west edge of pocket beach and channelized



Snow Creek - Geology

- USGS Geology Map (shown)
- Clallam County WRIA19 assessment
- Basalt Bedrock present at site in nearshore and offshore
- Varying layer thickness of alluvium over bedrock
- Shallow bedrock should be expected at this site



A.4 Geology

Consolidated strata underlying WRIA 19 consist primarily of tertiary (Eocene through Miocene) marine sediments and basalt. In addition, a relatively thin veneer of quaternary glacial deposits and alluvium up to 200 feet thick covers bedrock in 21 percent of WRIA 19 (Figure A-3). Bedrock that underlies the WRIA primarily consists of cemented marine sedimentary deposits of shale (or siltstone and mudstone), sandstone, and conglomerate, for which the sands and gravels represent turbidite deposition from submarine fans. The basalt includes massive flows, pillow basalts, and volcaniclastic sediments.

The marine sediments and basalt have been lithified, uplifted, and rotated such that the original subhorizontal bedding planes of the sediments have been tilted to the north-northeast with a dip of roughly 30 degrees (ranging mostly between 20 degrees and 40 degrees) and a strike (trend) that generally parallels the coastline oriented from N60°W to N90°W.

Snow Creek – Geomorphologic Assessment

- Source: Clallam County Wester Strait Subregion Nearshore Assessment
- Geology: Old marine sediments with alluvial deposits; rock and broken rock present
- Habitat: Nearby kelp beds
- Snow Creek: Onsite creek outlet is tight lined adjacent to old pier, outlet delta “Severely Impaired.” Sand present in substrate
- Nearshore Sediment Drift: No Appreciable Drift – Pocket Beach
- Pockets such as Snow Creek tend to accumulate sediment derived from fluvial sources and very steep adjacent rocky shorelines

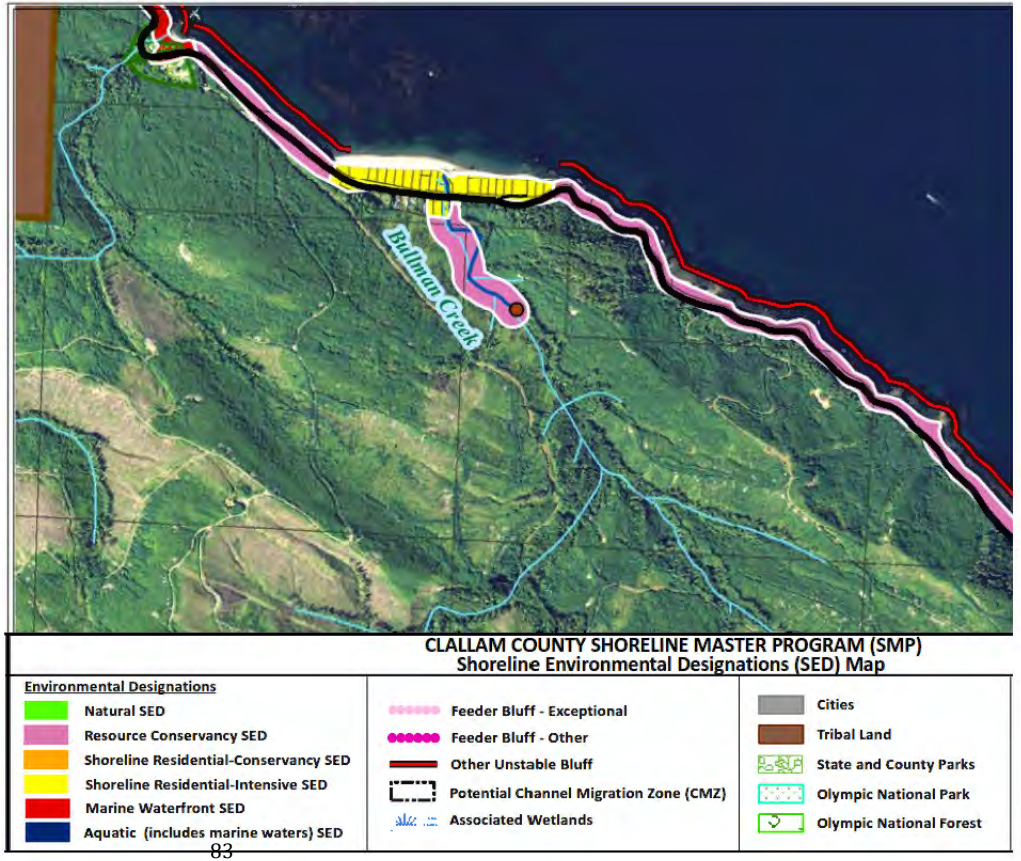
Figure 1. Western Strait sub-region, including habitat complexes and net sediment drift (WDOE 2002, based on Bubnick 1986). The arrow shown just west of Neah Bay points to the western boundary of the sub-region and study area at Koitlah Point. Legend items DZ = “divergence zone”, NAD = “no appreciable drift”, UN = “unknown”, LtoR = “left-to-right”, and RtoL = “right-to-left” (from the perspective of someone in a boat and facing the land).

Snow Creek – Geomorphologic Assessment

- Pocket Beach, sand
- North facing sandy beaches are susceptible to seasonal beach profile changes
- Sand will shift downslope and back upslope, thereby creating challenges for any on grade structures

Snow Creek – Clallam County Shoreline Master Program

- Marine Waterfront SED Designation
- Unstable Bluff
- Resource Conservancy to the east



Snow Creek – Clallam County Shoreline Master Program

4.2 Boating Facilities and Moorage

4.2.0 Applicability

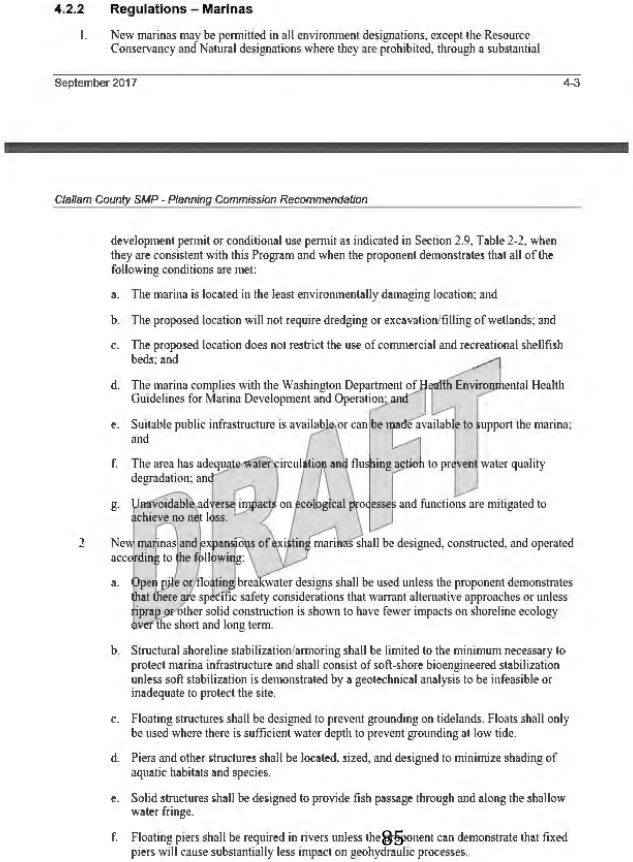
Boating Facilities and Moorage, as defined in Chapter 11, shall be consistent with the following policies and shall conform to the following regulations.

4.2.1 Policies

1. Boating and moorage facilities should be located, designed, constructed, and operated to avoid adverse impacts on shoreline functions and processes and to prevent conflicts with other permitted uses.
2. Boating facilities should not be located or expanded where they would:
   a. Substantially interfere with net-shoreline drift.
   b. Cause adverse impacts on aquatic habitat, water quality, aesthetics, navigation, and/or neighboring uses.
3. Boating facilities and moorage associated with commercial, industrial, and port uses should include public access in accordance with Section 5.3 of this Program.
4. Boating facilities and moorage should be sited and designed to avoid or, if that is not possible, to minimize the need for new and maintenance dredging.
5. New marinas and other public boating facilities should be co-located with other compatible water-dependent uses where feasible. The Administrator should seek comment from public recreation providers, adjacent cities/counties, port districts, Washington State Parks, affected Native American Tribes, and the Washington State Departments of Ecology, Fish and Wildlife, Health, and Natural Resources, to ensure that local as well as regional recreation needs are addressed.
6. The County should review proposals for boating facilities and moorage to determine if any such development would thwart or substantially compromise planned restoration actions in the vicinity of the project. The County should work with the proponents of each project to resolve likely conflicts between the proposed development and planned restoration.

Snow Creek – Clallam County Shoreline Master Program

Marinas



4.2.2 Regulations – Marinas

1. New marinas may be permitted in all environment designations, except the Resource Conservancy and Natural designations where they are prohibited, through a substantial

development permit or conditional use permit as indicated in Section 2.9, Table 2-2, when they are consistent with this Program and when the proponent demonstrates that all of the following conditions are met:

a. The marina is located in the least environmentally damaging location; and

b. The proposed location will not require dredging or excavation/filling of wetlands; and

c. The proposed location does not restrict the use of commercial and recreational shellfish beds; and

d. The marina complies with the Washington Department of Health Environmental Health Guidelines for Marina Development and Operation; and

e. Suitable public infrastructure is available or can be made available to support the marina; and

f. The area has adequate water circulation and flushing action to prevent water quality degradation; and

g. Unavoidable adverse impacts on ecological processes and functions are mitigated to achieve no net loss.

2. New marinas and expansions of existing marinas shall be designed, constructed, and operated according to the following:

a. Open pile or floating breakwater designs shall be used unless the proponent demonstrates that there are specific safety considerations that warrant alternative approaches or unless riprap or other solid construction is shown to have fewer impacts on shoreline ecology over the short and long term.

b. Structural shoreline stabilization/armoring shall be limited to the minimum necessary to protect marina infrastructure and shall consist of soft-shore bioengineered stabilization unless soft stabilization is demonstrated by a geotechnical analysis to be infeasible or inadequate to protect the site.

c. Floating structures shall be designed to prevent grounding on tidelands. Floats shall only be used where there is sufficient water depth to prevent grounding at low tide.

d. Piers and other structures shall be located, sized, and designed to minimize shading of aquatic habitats and species.

e. Solid structures shall be designed to provide fish passage through and along the shallow water fringe.

f. Floating piers shall be required in rivers unless the proponent can demonstrate that fixed piers will cause substantially less impact on geohydraulic processes.

4. Every marina shall have appropriate equipment and operational procedures on hand to store fuels and related chemicals, prevent accidental spills, and facilitate containment and collection of chemicals should spillage occur.

5. New marinas shall include public access amenities. Consistent with Section 5.3 of this Program, public access siting and design shall be determined based on what is appropriate to a given location and the needs/desires of the surrounding community.

6. Live-aboard vessels may occupy up to twenty (20) percent of the slips at a marina. Marinas that accommodate live-aboards shall provide and maintain adequate facilities and programs to address waste disposal and sanitary disposal.

7. New or expanded marinas may include fill waterward of the ordinary high water mark only when necessary for the water-dependent portions of the marina facility. Filling for the creation of marina parking areas shall be prohibited.

8. If new or expanded marina facilities adversely impact net sediment transport or other coastal processes to the detriment of nearby beaches or habitats, the marina operator shall be required to periodically replenish the substrate in these areas to offset adverse impacts.

9. New or expanded development accessory to marinas including parking, open air storage, waste storage and treatment, stormwater management facilities, and utilities shall be designed and constructed to avoid adverse impacts on shoreline functions and processes. The following standards shall apply to new or expanded development accessory to marinas:

a. Accessory structures and facilities shall be clustered and located so as to reduce clearing and grading impacts.

b. Water-oriented accessory uses reasonably related to marina operation may be located over water or near the water's edge by conditional use permit if an overwater or water's-edge location is essential to the operation of the use and if public access is provided.

c. Parking shall be located away from the water's edge and landward of shoreline buffers prescribed by this Program.

d. Pump-out, holding, and/or waste treatment facilities and services shall be provided at all marinas. Pump-out facilities shall be conveniently located and sited to ensure easy access, prevent lengthy queues, and allow full compliance with waste disposal regulations. Vessel-mounted pump-out services and hard-plumbed stations at each slip shall be preferred over portable pump-out equipment.

e. Marinas shall provide adequate restroom and sewage disposal facilities in compliance with applicable health regulations. Restrooms shall be available twenty-four (24) hours a day for use by any patron of the marina facility; the need for restrooms shall be determined based on the number of slips and percentage of live-aboard vessels within the marina.

f. Garbage and recycling receptacles shall be provided and maintained by the marina operator at several locations convenient to users.

g. Marina operators shall post all regulations pertaining to handling and disposal of waste, sewage, fuel, and oil or toxic materials where all users may easily read them.

Snow Creek – Clallam County Shoreline Master Program

Boat Launch

h. Boat washing facilities shall be provided to minimize transfer of invasive aquatic species between water bodies.

4.2.3 Regulations – Boat Launches

1. Public boat launches may be permitted in all environment designations through a substantial development permit or conditional use permit as indicated in Section 2.9, Table 2-2, when they are consistent with this Program and when the proponent demonstrates that the boat launch:
   a. Is located in areas where there is adequate water mixing and flushing action to prevent water quality impacts; and
   b. Is designed so as not to retard or reduce natural shoreline flushing characteristics; and
   c. Is constructed using methods/technology that have been recognized and approved by state and federal resource agencies as the best currently available; and
   d. Will not block or interfere with existing or potential public access along beaches or otherwise impair public use of public surface waters; and
   e. Incorporates mitigation to offset unavoidable adverse impacts and achieve no net loss.
2. New boat launches shall comply with the applicable provisions of Chapters: 6, Shoreline Buffers and Vegetation Conservation; 7, Critical Areas; 8, Mitigation and No Net Loss; and with the applicable sections: 5.2, Clearing, Grading and Filling; 5.3, Public Access; 5.4, Water Quality/Water Management and 5.5, Archeological, Historical and Cultural Resources.
3. No more than one private boat launch facility or structure shall be permitted on a single parcel or residential lot.
4. Public boat launches shall include adequate restroom and sewage and solid waste disposal facilities in compliance with applicable health regulations.
5. When overwater development is proposed in association with a public boat launch facility, it may be permitted only where such use requires direct water access, and/or where such facilities will substantially increase public opportunities for water access.
6. Public boat launches shall be located and designed to prevent traffic hazards and minimize traffic impacts on nearby access streets.
7. Public boat launch sites shall include parking spaces for boat trailers commensurate with projected demand.

Snow Creek – Clallam County Shoreline Master Program

Boat Launches

4.2.4 Regulations – Piers, Docks, and Floats, Non-residential

1. Docks, piers, and floats associated with commercial, industrial, port, or public or private recreational developments may be permitted in all environment designations through a substantial development permit or conditional use permit as indicated in Section 2.9, Table 2-2 when they are consistent with this Program and when the proponent demonstrates that:

   a. The dock/pier/float is required to accommodate a water-dependent use; and

   b. The dock/pier/float is designed to avoid or, if that is not possible, to minimize the impacts to nearshore habitats and processes.

2. Non-residential piers, docks and floats shall comply with the applicable provisions of Chapters: 6, Buffers; 7, Critical Areas; 8, Mitigation and No Net Loss; and with the applicable sections: 5.2, Clearing, Grading and Filling; 5.3, Public Access; 5.4, Water Quality/Water Management and 5.5, Archeological, Historical and Cultural Resources.

3. Joint-use piers shall be preferred for commercial and industrial developments which are in close proximity to one another.

4. Covered moorage associated with non-residential docks, piers, and floats shall be prohibited.

5. New and substantially expanded non-residential docks, piers and floats shall be constructed of materials that will not adversely impact water quality or aquatic plants and animals over the long term. Materials for any portions of the dock, pier, float, framing, or decking that come in contact with water shall be approved by Washington Department of Fish and Wildlife (WDFW) and Ecology for use in water.

6. To minimize adverse impacts on nearshore habitats and species caused by overwater structures that reduce ambient light levels, the length, width and height of non-residential docks, piers and floats shall be no greater than that required for safety and practicality for the primary use. The Administrator shall defer to the dimensional limits imposed in the project-specific permit conditions issued by the U.S. Army Corps of Engineers and Washington Department of Fish and Wildlife and shall require adherence to the following:

   a. New and replacement piers that exceed 4 feet in width shall have a minimal of 30% functional grating that will allow light to pass through the deck .

   b. New and replacement ramps, walkways, or gangplanks shall be fully grated within 60% open area to allow light passage.

   c. New and replacement floating sections shall have a minimum of 50% functional grating to allow light to pass through the deck. For individual docks less than or equal to 4 feet wide, a minimum of 30% functional grating is required.

7. Commercial, industrial, port or public recreational docks, piers and floats shall be spaced and oriented to shoreline in a manner that avoids or minimizes:

   a. Hazards and obstructions to navigation, fishing, swimming and pleasure boating; and

   b. Shading of beach substrate below; and

8. Fill waterward of the ordinary high water mark shall be limited to the minimum necessary to match the upland with the elevation of the non-residential dock or pier.

9. Dredging shall be limited to the minimum necessary to allow boat access to a non-residential dock or pier.

Snow Creek – Clallam County Master Program

Mooring Buoys

4.2.6 Regulations – Mooring Buoys

1. Mooring buoys may be permitted in all environment designations through a substantial development permit or conditional use permit as indicated in Section 2.9, Tables 2-1 and 2-2, when they are consistent with this Program and when the proponent demonstrates that the buoy:
   a. Will be located to avoid adverse impacts to eelgrass beds and other valuable aquatic and nearshore habitat areas; and
   b. Will not impede the ability of other landowners to access private property; and
   c. Will not pose a hazard to or obstruct navigation or fishing; and
   d. Will not adversely impact water quality; and
   e. Will not pose a threat to shellfish beds or an existing aquaculture operation.
2. The installation and use of mooring buoys in marine waters shall be consistent with all applicable state and federal laws and permit requirements, including standards of the state Departments of Natural Resources, Health, and Fish and Wildlife and the U.S. Army Corps of Engineers.
3. Recreational mooring buoys on state-owned aquatic lands shall not be used for permanent residential (living on the boat) or commercial purposes; limitations shall not interfere with use of mooring buoys for scientific research purposes.
4. Wherever appropriate, mooring buoys shall use neutral buoyancy rope, mid-line float, helical anchors, or other Washington Department of Natural Resources (WDNR)-approved designs that have minimal adverse impacts on aquatic ecosystems and fish; where specific WDNR-designs are inappropriate or ineffective given the proposed mooring buoy location, reasonable and effective designs shall be used that minimize adverse impacts on aquatic ecosystems and fish.
5. Mooring buoys shall be clearly marked and labeled with the owner's name and contact information and permit number(s).
6. Placement and number of mooring buoys within bays and other areas shall not exceed a density of four (4) buoys per acre.
7. During the installation of the mooring buoy, the location of the mooring buoy may be adjusted to minimize impacts to sensitive habitat areas (i.e. eelgrass beds), provided that revised location complies with all rules and regulations. If the location of the mooring buoy is significantly modified, an amended site map with the amended longitude and latitude shall be submitted to the County for review and approval.
8. Mooring buoys should be generally limited to the areas in front of their ownership, unless there is a written agreement with the parties affected, including the subtidal property owner that will allow for said encroachment. If it is determined that the location of the proposed mooring buoy interferes with a proposal for a mooring buoy by the adjacent landowners, the mooring buoy of the non-adjacent shall be located further away from the shore in compliance with all rules and regulations. (SEE RCW 79.105.430(3)).
9. Mooring buoys shall be located no closer than 100 feet from another mooring buoy, dock, pier, float, or other fixed navigational obstruction, unless there is a written agreement with the parties affected, including the subtidal property owner that will allow for said encroachment. If it is determined that the proposed mooring buoy interferes legally established buoys, moored boats, or private tidelands it shall be removed or moved to a location that complies with all rules and regulations.
10. No more than two (2) boats shall be secured by a mooring buoy. Mooring buoys that are placed by exemption shall not be rented or leased.
11. Boats that are occupied shall not be permitted to moor at private docks, piers, and floats longer than three (3) days unless pump-out facilities are available in the immediate vicinity.

4.2.7 Application Requirements

1. Applications for boating and moorage facilities shall provide all of the information required in Section 10.3.0 of this Program plus any additional information that may be required pursuant to the critical areas regulations in Chapter 7 of this Program.
2. Proposals for new or expanded marina facilities shall include appropriate technical studies and plans that are not already required via another regulatory review process. Examples of studies and plans that may be required include, but are not limited to:
   a. A Maintenance Plan for maintaining pump-out and waste/sewage disposal facilities and services.
   b. A Spill Response Plan for oil and other spilled products. Compliance with federal or state law may fulfill this requirement.
   c. An Operational Plan that, at a minimum, describes procedures for fuel handling and storage; measures including signage, for informing marina users of applicable regulations; measures for collecting garbage and recyclables; measures and equipment for ensuring public safety.
   d. A visual assessment of views from surrounding residential properties, public viewpoints, and the view of the shoreline from the water surface.
   e. An analysis of fish and shellfish resources which may be affected.
   f. An assessment of existing water-dependent uses in the vicinity, including but not limited to navigation, fishing, shellfish production and harvest, swimming, beach walking, and picnicking and shall document potential impacts and mitigating measures.

Snow Creek – Clallam County Shoreline Master Program

Permitted Uses Table

P = Permitted, if it complies with the standards in Chapter 3 and Chapter 4 (via a Shoreline Substantial Development Permit or a Statement of Exemption if it is exempt per WAC 173-27-040; **X** = Prohibited; **C** = Conditional Use. See permit criteria in Chapter 10.

Use/Development/ Modification	Aquatic – Straits[1]	Aquatic – Pacific Ocean[1]	Marine Waterfront	Shoreline Residential - Intensive	Shoreline Residential - Conservancy	Resource Conservancy	Natural

1. The requirements for the Aquatic designation on the marine waters of the Strait of Juan de Fuca and all lakes and rivers that drain toward the Strait shall be linked to the adjacent, upland shoreline environmental designation. Thus if the use/development is prohibited in the upland Shoreland area it shall be prohibited in the Aquatic area. The County does not have jurisdiction for the shorelands along the Pacific, so the requirements for the Aquatic designation on the Pacific are not tied to the adjacent shoreland designation.
2. Does not modify or limit existing agricultural uses on existing agricultural lands per WAC 173-26-241(3)(a)(ii)
3. Non-water-oriented industrial and commercial use/development may be allowed as part of a mixed use if consistent with the criteria in Section 3.3 of this Program.
4. Maintenance dredging in areas that have lawfully dredged in the past may be permitted in accordance with Section 4.3.
5. May be permitted when done in conjunction with a project whose primary purpose is ecological restoration.
6. Pertains to non-timber harvest activities only. Timber harvest is regulated by the Forest Practices Act (RCW 76.09)
7. Some restoration projects may be exempt from a substantial development permit if they meet the criteria in RCW 77.55 and RCW 90.58.147.
8. Subject to exceptions as noted in this Program. See specific use section for details.
9. New or expanded hard structural shoreline stabilization along feeder bluff, feeder bluff-talus, and exceptional feeder bluffs is prohibited (Section 4.6.5.3).

Table 2-2. Non-Residential Uses: Permitted Uses, Conditional Uses, and Prohibited Uses for Each Shoreline Environment Designation

P = Permitted, if it complies with the standards in Chapter 3 and Chapter 4 (via a Shoreline Substantial Development Permit or a Statement of Exemption if it is exempt per WAC 173-27-040; **X** = Prohibited; **C** = Conditional Use. See permit criteria in Chapter 10.

Use/Development/ Modification	Aquatic – Straits[1]	Aquatic – Pacific Ocean[1]	Marine Waterfront	Shoreline Residential - Intensive	Shoreline Residential - Conservancy	Resource Conservancy	Natural
Agriculture[2] (see Section 3.1)	X	X	X	X	P	P	X
Aquaculture: (see Section 3.2)							
Aquaculture activities other than geoduck or finfish	P	C	P	P	P	P	C
Geoduck	C	C	C	C	C	C	C
Net pens/Finfish	C	C	C	C	C	C	C
Beach access structures - Public (see Section 4.1)	see note 1	C	P	P	P	C	C
Boating facilities: (see Section 4.2)							
Public boat launches	see note 1	P	P	P	P	P	P
Public docks, piers, floats, lifts	See note 1	P	P	P	P	P	P
Docks, piers, floats, lifts—non-residential	see note 1	C	P	P	C	C	C
Float plane moorage	see note 1	C	P	C	X	X	X
Marinas	see note 1	C	P	C	C	X	X
Mooring buoys	see note 1	C	P	P	P	P	C
Public mooring buoys	See note 1	P	P	P	P	P	P
Clearing, grading and filling	X	X	Only allowed in conjunction with an approved shoreline use or development; see Section 5.2 of this Program				
Commercial / Industrial development: (see Section 3.3)							
Water-dependent	see note 1	C	P	C	C	C	X
Water-related	see note 1	C	P	C	C	C	X
Water-enjoyment	see note 1	C	P	C	C	C	X
Non-water-oriented[3]	see note 1	X	C	C	C	C	X

APPENDIX D

Estimated Construction Cost Summary Sheet

MOTT MACDONALD

WDFW Snow Creek Feasibility Assessment
Cost Estimate Worksheet

Location: **Neah Bay**
Project: **Snow Creek Boater Access Facility**

Prepared By: **SC/JL/SP**
Date: **09/06/18**

Item #	Work Item Description	Quantity/Units	Unit	Unit Cost	Item Cost	Totals
Access Pier, Gangway and Floats						
1	Furnish and Install Transfer Ramp & Upland Footing (15'x7')	1	EA	$16,000	$16,000	
2	Furnish and Install Aluminum Walkways (50x7)	3	EA	$52,500	$157,500	
3	Furnish and Install 80'x5' Aluminum Gangway	1	EA	$60,000	$60,000	
4	Furnish 8'x36' Floats	11	EA	$28,800	$316,800	
5	Transport and Install Supplied Floats	11	EA	$5,000	$55,000	
6	Furnish and Install 16" Steel Piling (floats)	10	EA	$11,000	$110,000	
7	Furnish and Install 16" Steel Piling (walkways)	6	EA	$11,000	$66,000	
8	Rock Sockets for Piles	18	EA	$9,000	$162,000	
9	Furnish and Install Steel Pile Caps for walkways	3	EA	$3,500	$10,500	
10	Furnish and Install Gangway Hoist Head Frame	1	EA	$5,000	$5,000	
11	Furnish and Install Steel Piling (Gangway Hoist)	2	EA	$11,000	$22,000	
12	General Costs (18%)	1	LS	$147,120	$147,120	
					Subtotal	**1,127,920**
					Total incl. 25% Contingency and Sales Tax	**1,468,552**
Elevated Boat Ramp and Boarding Floats						
1	Boarding Floats Anchor Piles - 16" - Furnished & Installed	8	EA	$11,000	$88,000	
2	Rock Socket for Boarding Float Piles	8	EA	$9,000	$72,000	
3	Boat Ramp Piles (20")	30	EA	$15,000	$450,000	
4	Rock Socket for Boat Ramp Piles	30	EA	$9,000	$270,000	
5	Boat Ramp Piles Caps	15	EA	$3,000	$45,000	
6	Furnish and Install Boat Ramp Concrete Deck Planks	4446	SF	$65	$288,990	
7	Furnish 6'x35' Floats	8	EA	$21,000	$168,000	
8	Transport and Install Supplied Floats	8	EA	$5,000	$40,000	
9	CIP Conrete Curb & Topping Slab	1	LS	$30,000	$30,000	
10	General Costs (18%)	1	LS	$213,299	$213,299	
					Subtotal	**1,665,289**
					Total Incl. 25% Contingency and Sales Tax	**2,168,206**
Marine Rail Launch and Boarding Floats						
1	Boarding Floats Anchor Piles - 16" - Furnished & Installed	5	EA	$11,000	$55,000	
2	Rock Socket for Boarding Float Piles	5	EA	$9,000	$45,000	
3	Furnish 6'x36' Floats	4	EA	$21,600	$86,400	
4	Transport and Install Supplied Floats	4	EA	$5,000	$20,000	
5	Furnish and Install Steel Pile Caps for Float support at low tides	10	EA	$3,500	$35,000	
6	Offshore Rails					
	Site Prep	1	Lump	$15,000	$15,000	
	Pile Supply	600	Lin. Ft.	$175	$105,000	
	Rock Socket for Rail Pile	24	Each	$7,000	$168,000	
	Steel Rail Supports	1742	Lbs	$10	$17,420	
	Supply Rails	240	Lin. Ft.	$50	$12,000	
	Install Rails	1	Lump	$15,000	$15,000	
7	Apron Rails & Winch					
	Concrete Casting	1	Lump	$5,000	$5,000	
	Rail Supply	64	Lin. Ft.	$50	$3,200	
	Install Rails	1	Lump	$3,000	$3,000	
	Winch & Cable Supply	1	Each	$15,000	$15,000	
	Carriage & Misc. Supply	1	Each	$18,000	$18,000	
	Installation & Testing	1	Lump	$15,000	$15,000	
8	Lifting Frame					
	Foundations	4	Each	$3,000	$12,000	
	Pipe Supports	50	Lin. Ft.	$60	$3,000	
	Cross Beams	26	Lin. Ft.	$113	$2,925	
	Rail Beam	40	Lin. Ft.	$75	$3,000	
	Hoist & Controls	1	Each	$5,000	$5,000	
	Installation & Testing	1	Lump	$15,000	$15,000	
9	Marine Rail Open sided Shed (30'x32')	960	SF	$75	$72,000	
10	Electrical and controls	1	Lump	$25,000	$25,000	
11	Project Clean-up	1	Lump	$9,750	$9,750	
12	General Costs (18%)	1	LS	$140,525	$140,525	
					Subtotal	**921,220**
					Total Incl. 25% Contingency and Sales Tax	**1,199,429**
Mooring Buoys						
1	Marker Buoys and Hardware	12	EA	$1,200	$14,400	
2	28' Vessel Mooring Buoy Anchor	12	EA	$3,500	$42,000	
3	General Costs (18%)	1	LS	$10,152	$10,152	
					Subtotal	**66,552**
					Total Incl. 25% Contingency and Sales Tax	**86,651**
Non Motorized Low Freeboard Docks and Kayak Launch						
1	Furnish 8'x40' Low Freeboard Floats	4	EA	$28,000	$112,000	
2	Furnish 8'x20' Kayak Launch Floats	1	EA	$14,000	$14,000	
3	Transport and Install Low Freeboard Floats and Kayak Launch	3	EA	$4,000	$12,000	
4	General Costs (18%)	1	LS	$24,840	$24,840	
					Subtotal	**162,840**
					Total Incl. 25% Contingency and Sales Tax	**212,018**

NOTES:
1. General costgs cover mobilization, environmental protection, surveying, and other incidental costs.
2. Engineering, Regulatory Permitting, Data Collection (Geotechnical) and mitigation cossts are not included.
3. No escalaation factors included.
4. Upland Improvements not included.

Tab D
Eelgrass Survey

August 24, 2018

Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98504

Attn: Ms. Kristen Kuykendall

RE: SNOW CREEK EELGRASS SURVEY, CLALLAM COUNTY, WASHINGTON

Shannon & Wilson, Inc. was contracted by the Washington Department of Fish and Wildlife (WDFW) to provide an eelgrass survey at the old Snow Creek Resort property, located on State Route 112, or the Strait of Juan de Fuca Highway, approximately 2.5 miles southeast of Neah Bay (Figure 1). The property is located on Clallam County parcel number 14331733, within Section 18, Range 14 West, Township 33N of the Willamette Meridian. We understand that WDFW is requesting the eelgrass survey at the old Snow Creek Resort to support a feasibility study evaluating potential shoreline such as a boat ramp, mooring buoys, or kayak launch.

Our scope consisted of (1) reviewing existing eelgrass documentation in the vicinity of the project site and (2) performing the eelgrass survey on the property within the study area you emailed to Katie Walter on July 19, 2018. We understand from the communication that the northern limits of the study area are intended to reach -5 mean lower low water (MLLW). This letter summarizes our findings.

METHODOLOGY

Prior to conducting the survey, we reviewed the Washington Department of Natural Resources (DNR) Puget Sound Eelgrass Monitoring Data Viewer.[1] The DNR map identifies the project site as 'not sampled.' However, approximately 0.5 mile to the southeast of the project site, the map view identifies a stretch of shoreline that contains a mix of eelgrass (*Zostera marina*) and surfgrass (*Phyllospadix* sp.), but describes the area as having "insufficient data." Additionally,

[1] Washington State Department of Natural Resources, 2018, Puget sound eelgrass monitoring data viewer: Olympia, Wash., Washington State Dept. of Natural Resources, available: https://www.dnr.wa.gov/programs-and-services/aquatics/aquatic-science/puget-sound-eelgrass-monitoring-data-viewer, accessed August 2018.

the DNR map viewer identifies a large patch of eelgrass (*Zostera marina*) approximately 1.75 miles to the southeast of the project site. This mapped eelgrass bed is identified as growing between -9 ft MLLW and -30.20 MLLW.

The eelgrass survey was performed on August 10 and 11 by Sarah Corbin and Amy Summe, two senior Shannon & Wilson biologists trained in eelgrass delineation by the U.S. Army Corps of Engineers (Corps). On the afternoon of Friday, August 10, we established 12 transects perpendicular to the shoreline, within the study area (Photo 1). A hand-held global positioning system was used to mark the locations of the transects. We also observed the low tide of 2.5 MLLW at 6:37 p.m. on August 10 (Photo 2). On the morning of August 11, we returned to the site to perform the eelgrass survey during the morning's low tide of -2.4 MLLW at 7:43 a.m. We implemented the National Oceanic and Atmospheric Administration 2014 eelgrass survey methodology, wherein the eelgrass patch is identified if any eelgrass shoot within 1 square meter quadrat is within 1 meter of another eelgrass shoot. We surveyed the study area by walking the transects and Amy Summe snorkeled the portion of the study area that remained underwater at the low tide (Figure 2, Photo 3). Based on the low tide water elevation at 7:43 a.m., we estimate that the snorkel survey reached approximately -7.4 MLLW. Amy also extended the snorkel survey to the east and west, beyond the study area to the approximate limits shown in Figure 2. Water clarity allowed approximately 5 feet of visibility during the survey.

RESULTS

No eelgrass beds were observed within the study area or extended snorkel survey area. However, patches of surfgrass (*Phyllospadix* sp.) and a wide variety of macroalgae were observed throughout the intertidal zone. The surfgrass was observed growing on bedrock or large isolated boulders at a variety of elevations (Photos 4, 5, and 6). Seaweeds observed in the intertidal zone included sea lettuce (*Ulva* sp.), rainbow leaf (*Mazzaella* sp.), rock weed (*Fucus* sp.), Turkish towel (*Chondracanthus* sp.), and feather boa kelp (*Egregia* sp.) (Photos 7 and 8).

Substrate within the study area consisted mainly of fine to coarse sands and small gravels. Photos showing substrate conditions along the transects are included as Photos 9, 10, and 11.

CONCLUSIONS

Based on our survey results, there are no eelgrass patches within the study area. However, eelgrass bed boundaries can shift significantly within the span of one year. We understand that

the potential shoreline improvements under evaluation would not be constructed for several years. The Corps requires projects with marine shoreline impacts to include eelgrass survey results that have been completed within one year of application submittal. Therefore, we recommend resurveying the area within one year of permit application submittal to reassess eelgrass presence or absence. Additionally, given that the DNR maps eelgrass beds 1.75 miles to the southeast of the project between elevations -9 MLLW and -30.2 MLLW, a future eelgrass survey may need to extend to deeper elevations if there is a potential for project improvements in the area.

LIMITATIONS

The findings and conclusions documented in this letter have been prepared for specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our agreement. The conclusions presented in this letter are professional opinions based on interpretation of information currently available to us and are made within the operational scope, budget, and schedule constraints of this project. No warranty, express or implied, is made.

We appreciate the opportunity to be of service to you. If you have any questions or would like clarification of the information provided herein, please contact me at scc@shanwil.com or (206) 695-6674.

Sincerely,

SHANNON & WILSON, INC.

Sarah Corbin, PWS
Senior Biologist

SCC:KLW/scc

Enc: Site Photos (Photos 1 through 11)
Figure 1 – Vicinity Map
Figure 2 – Eelgrass Survey Map

Photo 1: The top of established transects, marked by orange pin flags (only half are shown in photo); viewing southeast; taken on August 10, 2018.

Photo 2: The Snow Creek Resort eelgrass study area at approximately 2.5 mean lower low water; viewing northwest; taken on August 11, 2018.

Photo 3: Snorkel surveys were completed the morning of August 11; viewing north; taken on August 11, 2018.

Photo 4: A patch of surfgrass (*Phyllospadix* sp.) growing on bedrock within the intertidal zone in the study area; taken on August 11, 2018.

Photo 5: Surfgrass (Phyllospadix sp.) growing on an isolated boulder in the study area; taken on August 11, 2018.

Photo 6: Surfgrass growing on a large rock on the edge of a kelp bed; taken on August 11, 2018.

Photo 7: Macroalgae growing within the intertidal zone in the study area; taken on August 10, 2018.

Photo 8: Macroalgae and surfgrass growing within the intertidal zone in the study area; taken on August 11, 2018.

Photo 9: Substrate along Transect 5, located identified by "P9" on Figure 2; taken on August 11, 2018.

Photo 10: Substrate along Transect 1, located identified by "P10" on Figure 2; taken on August 11, 2018.

Photo 11: Substrate along Transect 12, located identified by "P101" on Figure 2; taken on August 11, 2018.

N
W E
S

Snowcreek Eelgrass Survey
Washington Department of Fish and Wildlife
Clallam County, Washington

VICINITY MAP

August 2018 21-1-30018-001

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

FIG. 1

Filename: I:\EF\21-1 SEA\30000s\30018 WDFW 2017-2019\GIS\VicinityMap.mxd Date: 8/23/2018 SCC

Legend

- Survey Transects
- Approximate Snorkel Survey Area
- Study Area
- P9 Substrate Photo Point (Photo Number Indicated e.g. P9)

Note: Study area limits were provided by Kristen Kuykendall of Washington Department of Fish and Wildlife via email on July 19th, 2018.

N W E S

80 40 0 80 Feet

103

Snow Creek Eelgrass Survey
Washington Department of Fish and Wildlife
Clallam County, Washington

EELGRASS SURVEY MAP

August 2018 21-1-30018-001

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

FIG. 2

Filename: I:\EF\21-1 SEA\30000s\30018 WDFW 2017-2019\GIS\EelgrassSurveyMap.mxd Date: 8/24/2018 SCC

Tab E
Cost Estimates

Regional Recreational Costs

Washington Coast and Western Strait of Juan De Fuca

8/15/2018 L. Sater

		Moorage	Launch	Dry Camping	Full Hookup
Neah Bay					
	Big Salmon Resort	$ 1.00	$ 20.00		
	The Cape Motel & RV			$ 25.00	$ 40.00
Sekiu					
	Mason's Resort	$ 1.00	$ 15.00	$ 30.00	$ 40.00
La Push					
	Oceanside Resort			$ 25.00	$ 45.00
	Quileute Marina*	$ 0.75	$ 15.00		
Westport					
	Marina	$ 0.75	$ 8.00		
	Totem RV & Trailer			$ 20.00	$ 35.00
	Average	**$ 0.88**	**$ 14.50**	**$ 25.00**	**$ 40.00**

* Moorage is $15 per vessel. $0.75/ft assumes 20' average boat length

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Washington Department of Fish & Wildlife
Project Name	Snow Creek Resort
OFM Project Number	

Contact Information	
Name	Aaron Harris
Phone Number	(360)902-8394
Email	aaron.harris@dfw.wa.gov

Statistics			
Gross Square Feet	na	MACC per Square Foot	
Usable Square Feet	na	Escalated MACC per Square Foot	
Space Efficiency		A/E Fee Class	B
Construction Type	Other Sch. B Projects	A/E Fee Percentage	9.14%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	No
Inflation Rate	3.12%	Higher Ed Institution	No
Sales Tax Rate %	8.50%	Location Used for Tax Rate	Clallam Co
Contingency Rate	4%		
Base Month	June-18		
Project Administered By	Agency		

Schedule			
Predesign Start		Predesign End	
Design Start	July-19	Design End	July-21
Construction Start	August-21	Construction End	August-23
Construction Duration	24 Months		

Green cells must be filled in by user

Project Cost Estimate

Total Project	$4,564,383	Total Project Escalated	$5,143,576
		Rounded Escalated Total	$5,144,000

STATE OF WASHINGTON

AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Washington Department of Fish & Wildlife
Project Name	Snow Creek Resort
OFM Project Number	

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$0		
A/E Basic Design Services	$224,313		
Extra Services	$95,000		
Other Services	$100,778		
Design Services Contingency	$16,804		
Consultant Services Subtotal	**$436,895**	**Consultant Services Subtotal Escalated**	**$474,077**

Construction			
Construction Contingencies	$136,800	Construction Contingencies Escalated	$155,501
Maximum Allowable Construction Cost (MACC)	$3,420,000	Maximum Allowable Construction Cost (MACC) Escalated	$3,868,939
Sales Tax	$302,328	Sales Tax Escalated	$342,078
Construction Subtotal	**$3,859,128**	**Construction Subtotal Escalated**	**$4,366,518**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$208,360		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$208,360**	**Project Administation Subtotal Escalated**	**$236,843**

Other Costs			
Other Costs Subtotal	**$60,000**	**Other Costs Subtotal Escalated**	**$66,138**

Project Cost Estimate

Total Project	**$4,564,383**	Total Project Escalated	**$5,143,576**
		Rounded Escalated Total	**$5,144,000**

Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0338**	**$0**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$224,313			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$224,313**	**1.0661**	**$239,141**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation	$25,000			
Commissioning				
Site Survey				
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant	$25,000			
Permits	$45,000			
Insert Row Here				
Sub TOTAL	**$95,000**	**1.0661**	**$101,280**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$100,778			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$100,778**	**1.1367**	**$114,555**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$16,804			
Other				
Insert Row Here				
Sub TOTAL	**$16,804**	**1.1367**	**$19,101**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$436,895**		**$474,077**	

Green cells must be filled in by user

Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$175,000			
G20 - Site Improvements	$150,000			
G30 - Site Mechanical Utilities	$75,000			
G40 - Site Electrical Utilities	$75,000			
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$475,000**	**1.1023**	**$523,593**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention	$65,000			
Other				
Insert Row Here				
Sub TOTAL	**$65,000**	**1.1023**	**$71,650**	
3) Facility Construction				
A10 - Foundations	$35,000			
A20 - Basement Construction				
B10 - Superstructure	$135,000			
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems	$35,000			
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems				
F10 - Special Construction	$2,600,000			
F20 - Selective Demolition	$75,000			
General Conditions				
Other				
Insert Row Here				
Sub TOTAL	**$2,880,000**	**1.1367**	**$3,273,696**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$3,420,000**		**$3,868,939**	

This Section is Intentionally Left Blank

7) Construction Contingency				
Allowance for Change Orders	$136,800			
Other				
Insert Row Here				
Sub TOTAL	**$136,800**	**1.1367**	**$155,501**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.1367**	**$0**	
Sales Tax				
Sub TOTAL	**$302,328**		**$342,078**	
CONSTRUCTION CONTRACTS TOTAL	**$3,859,128**		**$4,366,518**	

Green cells must be filled in by user

Snow Creek Feasibility Budget

Full Options

Estimate Type: **Budget** By: KK

Estimating Contingency is included in each item below	25%				1
	# yrs to mid construction of last phase	% infl / yr		0-2	2.1-4
Inflation adjustment from the May **2018** cost basis that this spreadsheet is current to, is included in each item below	2.0	0.0%	Inflation after cost basis:	0.0%	FALSE
Mobilization (Mob cost is auto added to ea. item below)	4%				
Overhead & Profit (OH & P) included in the cost of each item below					

Item Description	Unit Cost	Unit	Quantity	Extension	Current BN Extension w/ contingency & mob.	CONSTRUCTION BIENNIUM Current	Next
PROJECT ELEMENTS							
Element Lower Site Upland				$0	$0		
Demolition of office and restroom	$35	sf	1200	$42,000	$55,000		
Grading	$2	sf	43560	$65,340	$85,000		
Paving/ Striping	$9	sf	6400	$57,600	$75,000		
Landscaping	$8.00	sf	10,000	$80,000	$104,000		
Septic decommission	$15,000	ls	1	$15,000	$20,000		
Electrical Upgrades with lighting	$75,000	ls	1	$75,000	$98,000		
Landscaping	$65,000	ls	1	$65,000	$85,000		
CXT	$38,000	ea	1	$38,000	$49,000		
Stream/Shoreline Restoration	$350	lf	250	$87,500	$114,000		
Temp Office Pad with power/water	$25,000	ea	1	$25,000	$33,000		
bridge	$18,000	ea	1	$18,000	$23,000		
Element Subtotal:					$741,000	1 $741,000	0 $0
Element Lower Site Boating				$0	$0		
Floats (8x12) 300 lf	$83	sf	2,400	$199,200	$259,000		
Pier (4x80)	$623	lf	80.00	$49,840	$65,000		
Foundations/anchors	$7,000	ea	24.00	$168,000	$218,000		
Buoys	$3,500.00	ea	8	$28,000	$36,000		
Boat Ramp (18x150) on-grade (opt)	$750	lf		$0	$0		
				$0	$0		
Boat Ramp (18x150) elevated	$925,000	ea	1	$925,000	$1,203,000		
Mitigation	$100,000.00	ls	1	$100,000	$130,000		
				$0	$0		
Element Subtotal:				$0	$1,911,000	1	1 $1,911,000
Element Upper Site							
Landscaping	$25,000	ls	1	$25,000	$33,000		
Campsites	$775	ea	25	$19,375	$25,000		
Septic	$35,000	ea	1	$35,000	$46,000		
Water System	$35,000.00	ls	1	$35,000	$46,000		
Grading/ trailer removal	$2	sf	43560	$87,120	$113,000		
Paving	$7	sf	11000	$77,000	$100,000		
ADA Restroom with Showers (20x16)	$350	sf	320	$112,000	$146,000		
Electical Upgrades and Lighting	$40,000.00	ls	1	$40,000	$52,000		
Intake (concrete vault with screens)	$45,000	ls	1	$45,000	$59,000		
Element Subtotal:				$0	$620,000	1 $620,000	0 $0
Element General				$0	$0		
Gates	$2,300	ea	2	$4,600	$6,000		
Fencing	$14	lf	2000.00	$28,000	$36,000		
Signs	$1,500.00	ea	2	$3,000	$4,000		
Interpretive Gazebo	$4,500	ea	1	$4,500	$6,000		
Park Model Office/residence	$100,000	ea	1	$100,000	$130,000		
Security cameras	$800	ea	4	$3,200	$4,000		
				$0	$0		
				$0	$0		
Element Subtotal:				$0	$186,000	1 $186,000	0 $0
Estimated MACC at respective mid-biennia:					Sum total:	$1,547,000 $3,458,000	$1,911,000

INSTRUCTIONS: Enter '1' for the biennium in which the element is projected to be constructed.

Notes:

1 This estimate is based on information from XXXX or a meeting / discussion with XXX on (date). Only a walk of the site has been conducted, no thorough investigations. Soils are assumed to be non-organic, non-clay, suitable for normal foundations, wetlands assumed to not be in construction area, E&T species are not an issue. Also it is assumed that funding is from direct appropriation from the Legislature to WDFW, that no funds from other agencies or Federal or Tribe is involved. If any of these assumptions is incorrect the effect on the estimate may be significant and the estimate must be redone.

2 This estimate was checked by the Chief Engineer (date)

3

Snow Creek Feasibility Budget

No In Water

Estimate Type: **Budget** By: KK

Estimating Contingency is included in each item below 25%

Inflation adjustment from the May **2018** cost basis that this spreadsheet is current to, is included in each item below

# yrs to mid construction of last phase	% infl / yr
2.0	0.0%

0-2

Inflation after cost basis: 0.0%

Mobilization (Mob cost is auto added to ea. item below) 4%

Overhead & Profit (OH & P) included in the cost of each item below

< Origin	Item Description	Unit Cost	Unit	Quantity	Extension	Current BN Extension w/ contingency & mob.	CONSTRUCTION BIENNIUM Current	
	PROJECT ELEMENTS							
	Element Lower Site Upland							
					$0	$0		
	Demolition of office and restroom	$35	sf	1200	$42,000	$55,000		
	Grading	$2	sf	43560	$65,340	$85,000		
	Paving/ Striping	$9	sf	6400	$57,600	$75,000		
	Landscaping	$8.00	sf	10,000	$80,000	$50,000		
	Septic decommission	$15,000	ls	1	$15,000	$20,000		
	Electrical Upgrades with lighting	$75,000	ls	1	$75,000	$75,000		
	Landscaping	$65,000	ls	1	$65,000	$0		
	CXT	$38,000	ea	1	$38,000	$49,000		
	Stream/Shoreline Restoration	$350	lf	250	$87,500	$0		
	Temp Office Pad with power/water	$25,000	ea	1	$25,000	$0		
	bridge	$18,000	ea	1	$18,000	$0		
	Element Subtotal:					$409,000	1	$409,000 0
	Element Lower Site Boating							
					$0	$0		
	Floats (8x12) 300 lf	$83	sf	2,400	$199,200	$0		
	Pier (4x80)	$623	lf	80.00	$49,840	$0		
	Foundations/anchors	$7,000	ea	24.00	$168,000	$0		
	Buoys	$3,500.00	ea	8	$28,000	$0		
	Boat Ramp (18x150) on-grade (opt)	$750	lf		$0	$0		
					$0	$0		
	Boat Ramp (18x150) elevated	$925,000	ea	1	$925,000	$0		
	Mitigation	$100,000.00	ls	1	$100,000	$0		
					$0	$0		
	Element Subtotal:				$0	$0	1	1
	Element Upper Site							
	Landscaping	$25,000	ls	1	$25,000	$33,000		
	Campsites	$775	ea	25	$19,375	$0		
	Septic	$35,000	ea	1	$35,000	$0		
	Water System	$35,000.00	ls	1	$35,000	$0		
	Grading/ trailer removal	$2	sf	43560	$87,120	$113,000		
	Paving	$7	sf	11000	$77,000	$0		
	ADA Restroom with Showers (20x16)	$350	sf	320	$112,000	$0		
	Electical Upgrades and Lighting	$40,000.00	ls	1	$40,000	$52,000		
	Intake (concrete vault with screens)	$45,000	ls	1	$45,000	$0		
	Element Subtotal:				$0	$198,000	1	$198,000 0
	Element General							
					$0	$0		
	Gates	$2,300	ea	2	$4,600	$6,000		
	Fencing	$14	lf	2000.00	$28,000	$36,000		
	Signs	$1,500.00	ea	2	$3,000	$4,000		
	Interpretive Gazebo	$4,500	ea	1	$4,500	$6,000		
	Park Model Office/residence	$100,000	ea	1	$100,000	$0		
	Security cameras	$800	ea	4	$3,200	$4,000		
					$0	$0		
					$0	$0		
	Element Subtotal:				$0	$56,000	1	$56,000 0

INSTRUCTIONS: Enter '1' for the biennium in which the element is projected to be constructed.

Estimated MACC at respective mid-biennia: $663,000

Sum total: $663,000

Notes:

1 This estimate is based on information from XXXX or a meeting / discussion with XXX on (date). Only a walk of the site has been conducted, no thorough investigations. Soils are assumed to be non-organic, non-clay, suitable for normal foundations, wetlands assumed to not be in construction area, E&T species are not an issue. Also it is assumed that funding is from direct appropriation from the Legislature to WDFW, that no funds from other agencies or Federal or Tribe is involved. If any of these assumptions is incorrect the effect on the estimate may be significant and the estimate must be redone.

2 This estimate was checked by the Chief Engineer (date)

3

Snow Creek Cost Analysis

Capital Cost Estimate		MACC	
Restroom Renovations for ADA Compliance		$	200,000.00
Grading		$	55,000.00
Electrical updgrade		$	85,000.00
Plumbing upgrade		$	85,000.00
Parking Area		$	175,000.00
Camping pads		$	40,000.00
Boat Ramp		$	900,000.00
Water system/diversion		$	175,000.00
Septic System		$	95,000.00
office		$	125,000.00
bridge		$	40,000.00
floats		$	750,000.00
mooring		$	90,000.00
subtotal		$	2,815,000.00
design	10%	$	281,500.00
demolition		$	115,000.00
permitting		$	50,000.00
mitigation	10%	$	281,500.00
contingency	15%	$	422,250.00
TOTAL		$	3,965,250.00

Operating Costs			annual
Staff	60000	yr	60000
Garbage	40	wk	2080
Electical	600	mo	7200
Water	800	mo	9600
Float removal	3500	yr	3500
Landscaping tools	200	mo	2400
restroom supplies	300	mo	3600
septic maint	500	mo	6000
misc	5000	yr	5000
			100,000/yr

Revenue			
Boat Ramp	Free with discover pass		
Camping	$	40.00	night
total operating days		120	May-Sept

Occupancy	# of days	reveue	spaces filled
100%	45	$ 36,000.00	20
50%	60	$ 24,000.00	10
80%	15	$ 28,800.00	16
	Total	$ 88,800.00	

Tab F
Feasibility Drawings

EXISTING KELP BED

STRAIT OF JUAN DE FUCA

N

EBB

FLOOD

BAYVIEW AVE

150' x 8' T-DOCK

EXTRAPOLATED CONTOURS BASED ON UPLAND SURVEY SLOPES FROM 0 TO -4 NAVD88

212' x 8' MAIN DOCK

22' RECREATIONAL VESSEL SHOWN, TYP.

MOORING FIELD FOR UP TO 28' RECREATIONAL VESSEL USING ELASTIC ROAD DESIGN - SWING RADIUS 50 FT MAX, TYP.

OPTIONAL 20' x 8' HDPE KAYAK LAUNCH

OPTIONAL 80' x 8' LOW FREEBOARD (6" - 8") DOCK

100' CLR, TYP.

DOCK PLACEMENT DESIGNED TO ACCOMMODATE LOWEST OBSERVED WATER SURFACE ELEVATION (-4.62' NAVD88)

80' x 5' GANGWAY WITH HOISTING FRAME

165' x 7' WIDE ACCESS WALKWAY (ALUMINUM STEEL)

105' LONG x 6' WIDE HANDLING FLOATS DESIGNED TO SIT ON RAMP AT LOW TIDES

15% SLOPE FROM EL +7 TO -2 NAVD88 60' LONG

HIGHEST OBSERVED WATER LEVEL (+13.1' NAVD88)

5% SLOPE FROM EL +13.1 TO +7 NAVD88 140' LONG

EXISTING KELP BED

171' LONG SINGLE LANE, PILE SUPPORTED BOAT LAUNCH WITH CURB

CONCEPT 1 - ACCESS PIER WITH ELEVATED BOAT RAMP

0 50 100

SCALE: 1" = 50'

DRAFT

MOTT MACDONALD

110 James Street
Suite 101
Edmonds, WA 98020

T +1 425 778 6243

www.mottmacamericas.com

Client

Rev	Date	Drawn	Description	Ch'k'd	App'd
	8/31/18	TM	CONCEPTUAL DESIGN		

115

Project Number	B/O	Total
385629	1	3

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		

Scale at ANSI D	Status	Rev	Security

Drawing Number

Title: SNOW CREEK BOATING FACILITY FEASIBILITY ASSESSEMENT

C:\pwworking\mmports_harbors\mdr0850\dms5416\385029-SnowCreek_Conceptual_v2018.dwg Aug 31, 2018 - 3:22PM MDR0850

EXISTING KELP BED

STRAIT OF JUAN DE FUCA

N

EBB

FLOOD

BAYVIEW AVE

EXTRAPOLATED CONTOURS BASED ON UPLAND SURVEY SLOPES FROM 0 TO -4 NAVD88

MOORING FIELD FOR UP TO 28' RECREATIONAL VESSEL USING ELASTIC ROAD DESIGN - SWING RADIUS 50 FT MAX, TYP.

100' CLR, TYP.

105' LONG x 6' WIDE HANDLING FLOATS DESIGNED TO SIT ON RAMP AT LOW TIDES

22' RECREATIONAL VESSEL SHOWN, TYP.

15% SLOPE FROM EL +7 TO -2 NAVD88 60' LONG

HIGHEST OBSERVED WATER LEVEL (+13.1' NAVD88)

5% SLOPE FROM EL +13.1 TO +7 NAVD88 140' LONG

171' LONG SINGLE LANE, PILE SUPPORTED BOAT LAUNCH WITH CURB

EXISTING KELP BED

CONCEPT 2 - ELEVATED RAMP WITH MOORING BUOYS

0 50 100

SCALE: 1" = 50'

DRAFT

MOTT MACDONALD

110 James Street
Suite 101
Edmonds, WA 98020

T +1 425 778 6243

www.mottmacamericas.com

Client

Rev	Date	Drawn	Description	Ch'k'd	App'd
	8/31/18	TM	CONCEPTUAL DESIGN		

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at ANSI D		Status	Rev		Security
Drawing Number					

Project Number	B/O	Total
385629	2	3

Title: SNOW CREEK BOATING FACILITY FEASIBILITY ASSESSEMENT

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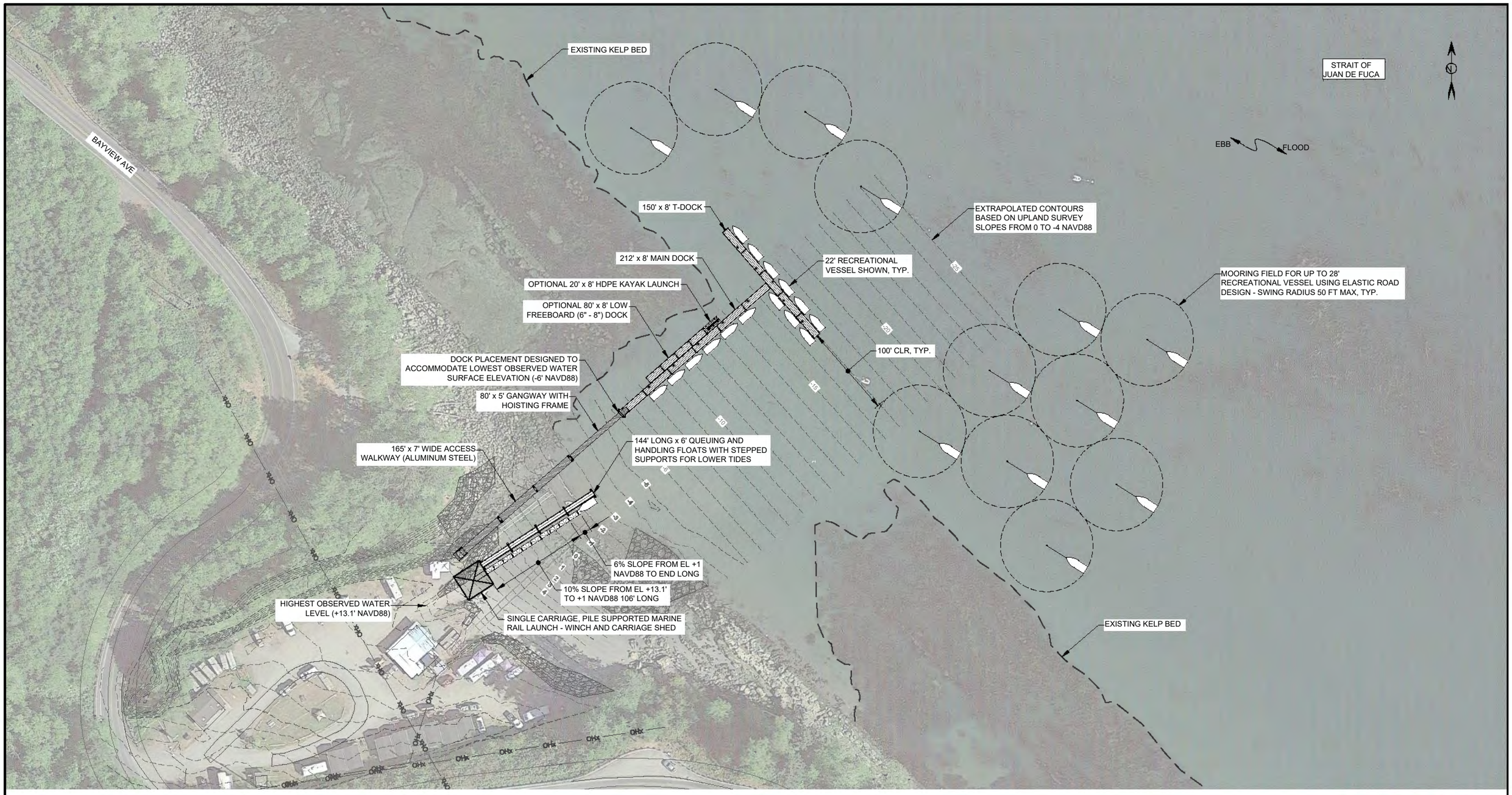

CONCEPT 3 - ACCESS PIER WITH MARINE RAIL LAUNCH

0 50 100

SCALE: 1" = 50'

DRAFT

MOTT MACDONALD

110 James Street
Suite 101
Edmonds, WA 98020

T +1 425 778 6243

www.mottmacamericas.com

Client

Rev	Date	Drawn	Description	Ch'k'd	App'd
	8/31/18	TM	CONCEPTUAL DESIGN		

Project Number 385629 | B/O 3 | Total 3

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at ANSI D	Status		Rev	Security	

Drawing Number

Title: SNOW CREEK BOATING FACILITY FEASIBILITY ASSESSEMENT

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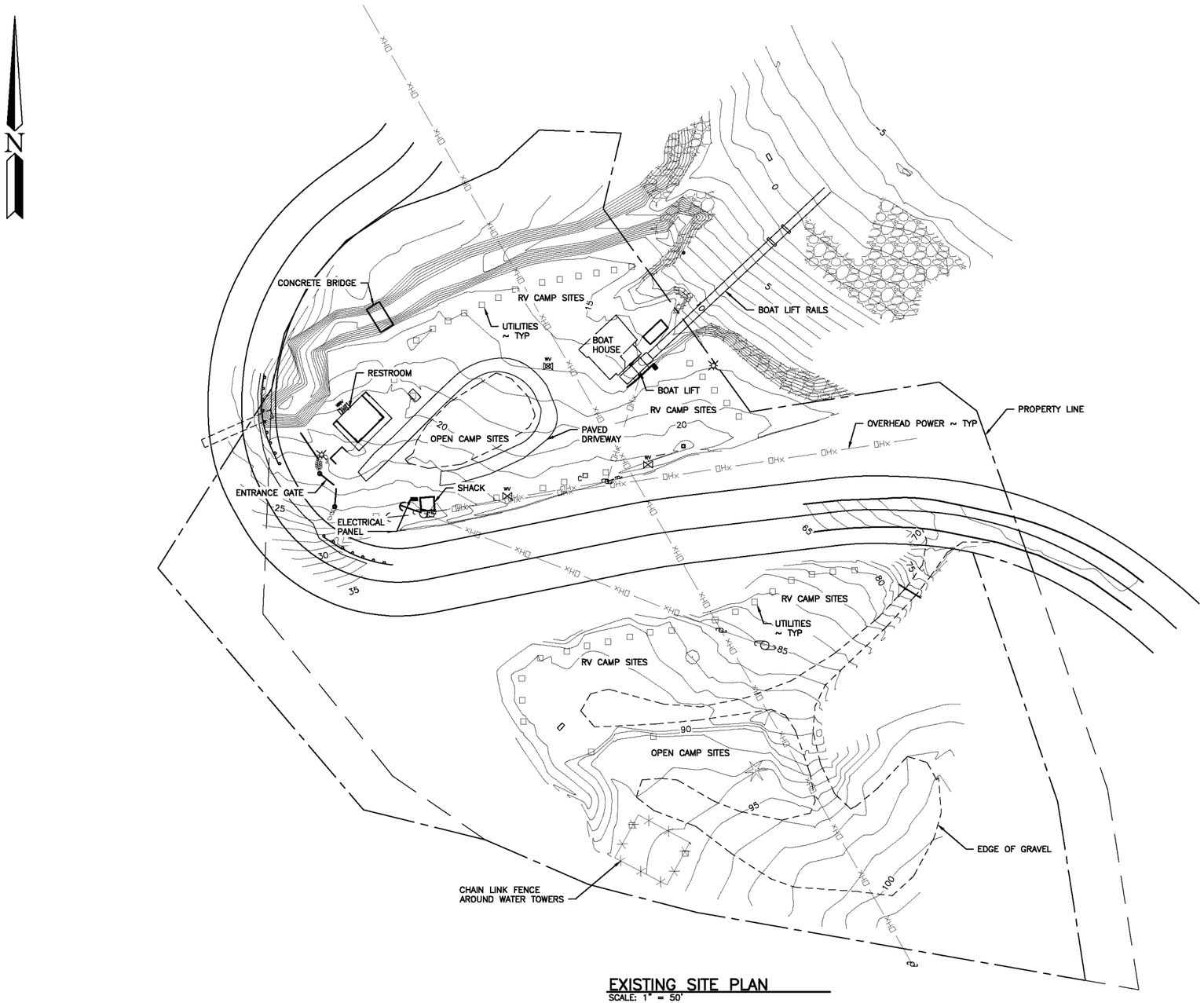


EXISTING SITE PLAN
SCALE: 1" = 50'

0 20 40 75 150
10 30 50 100
SCALE: 1" = 50'

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

SYM	DATE	REVISION DESCRIPTION	BY

APPROVED AND RELEASED FOR CONSTRUCTION
CHIEF ENGINEER ..... DATE: .....
PROGRAM ..... DATE: .....

NOT APPROVED FOR CONSTRUCTION

118

0 ——— 1"
BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS

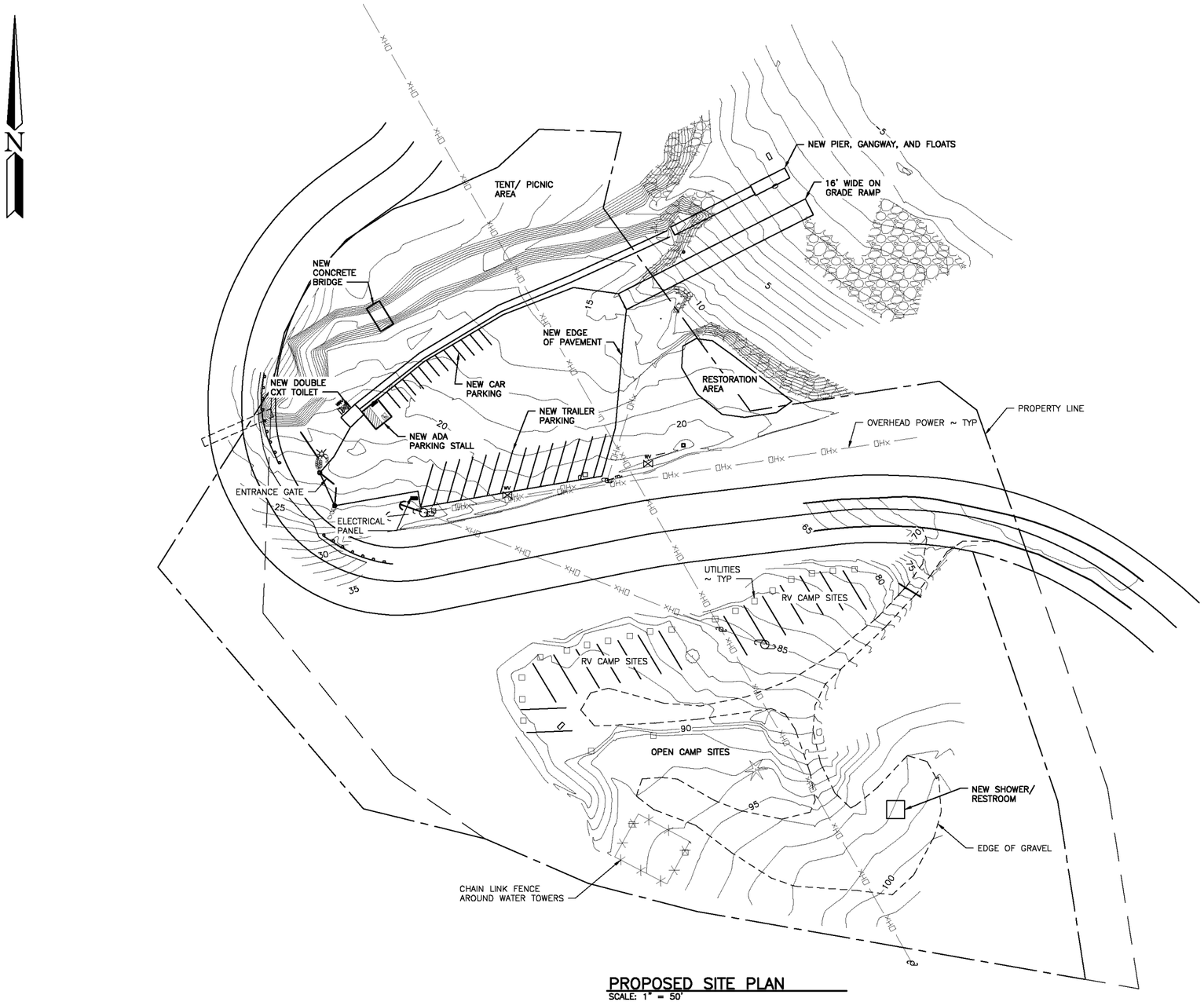
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
DATE _____

SNOW CREEK RESORT

EXISTING SITE PLAN

PROJECT NO.

SHEET OF



PROPOSED SITE PLAN
SCALE: 1" = 50'

0 20 40 75 150
10 30 50 100
SCALE: 1" = 50'

NOT APPROVED FOR CONSTRUCTION

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

SYM	DATE	REVISION DESCRIPTION	BY

APPROVED AND RELEASED FOR CONSTRUCTION

CHIEF ENGINEER ..... DATE: .....

PROGRAM ..... DATE: .....

0 —— 1"
BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS

DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
DATE _____

SNOW CREEK RESORT

PROPOSED SITE PLAN

PROJECT NO.

SHEET | OF

Tab G
Historic Drawings

Good PLAN

STRAIT OF JUAN DE FUCA

600 L.F. "TOPPER" FLOATS.

24' BOAT LAUNCHING RAMP

N. 89° 53' 00" E. TO LINE OF ORDINARY HIGH WATER

N. 89° 53' 00" E. 79.00

OLD PAVED HIGHWAY

Need water supply at kitchen

KITCHEN

CREEK

FISH CLEANING STATION

SERVICE BLDG. 2

GAS

REST ROOMS W/SHOWERS

DUMP STATION TRAILER PAD

WATER TREATMENT BLDG.

Sanitary Dump Station

Tank Drain Field

GOARD POST

waste line

waste hole

N. 0° 59' 00" W. 234.0

N. 24° 01' 00" E. 50.10

N. 38° 31' 00" E. 50.10

N. 52° 02' 00" E. 50.10

N. 66° 27' 00" E. 50.10

N. 80° 53' 00" E. 50.10

N. 45° 00' 00" E. 50.10

N. 89° 53' 00" E. 79.00

SNOW

Catch basin

N. 45° 59' 00" W. 184.80

N. 57° 30' 00" W. 99.90

N. 68° 52' 00" W. 99.80

N. 77° 51' 00" W. 99.80

N. 82° 23' 00" W. 399.10

S. 82° 23' 00" E. 111.63

ABANDONED R.R. GRADE

DOMESTIC SUPPLY FROM INTAKE ON CREEK (ALTERNATE #1)

DOMESTIC WELL & RESERVOIR

CRUSHED ROCK SURFACING.

WIDEN EXISTING ROAD TO 20' ∉ SURFACE WITH ASPHALT.

DATUM - U.S.G.S. # C-470 / 1974 ELEV. 48.54

NOTE:
D.O.F. B.C. CONC. MON. =
DEPT. OF FISHERIES BRASS CAP CONCRETE MONUMENT

18446 SQ FT SOUTH OF HWY.

Catch basin to drainage ditch

N. 21° 08' 00" W. TO LINE OF ORDINARY HIGH WATER

N. 21° 08' 00" W. 149.70

N. 76° 08' W. 55.55'

BARRIER

Good

BRUSH AND TREES

S. 21° 08' 00" E. 208.80

18,446 SQ FT.

N. 21° 08' 00" W. 234.00

S. 21° 08' 00" E. 240.88

N. 11° 08' 00" W. 160.67

S. 11° 08' 00" E. 186.10

N. 82° 23' 00" W. 48.66

TRANSMISSION LINE

1) need Sanitary Dump Station
2) need water station to fill campers
3) need water supply for kitchen/tent area

a lot of water must be carried through this ditch

MERIDIAN - TRUE BY SOLAR OBSERVATION

N
W E
S

CRUSHED ROCK SURFACING
ASPHALT SURFACING
~ CAR & BOAT TRAILER PARKING
~ TENT
~ PICNIC TABLE
~ FIRE PIT

Rev.	Date	Description	By
1	3-16-79	ADDED PROPOSED PARKING AT S.W. & N.E. ENDS OF PARCEL SC3	
2	08-79	ADDED PROPOSED PROP. SEPTIC SYST.	SC

GLYN E. STEINER
CHIEF ENGINEER
RALPH W. LARSON
DIRECTOR
PROJECT NO.

STATE OF WASHINGTON
DEPARTMENT OF GAME

PROPOSED IMPROVEMENTS
SNOW CREEK
SEC. 17, T. 33 N., R. 14 W., W. M.
CLALLAM COUNTY

A66-4781-001

DESIGNED BY ..... SURVEY: ..... SCALE 1" = 40'
DRAWN BY S.C.J. DATE 10-78 DATE DRAWN 11-78
CHECKED BY D.W.P. BOOK NO. MISC. 79 SHEET 1 OF 1 SHEETS

upto → 145,000

JOHN SPELLMAN
Governor

ROLLAND A. SCHMITTEN
Director

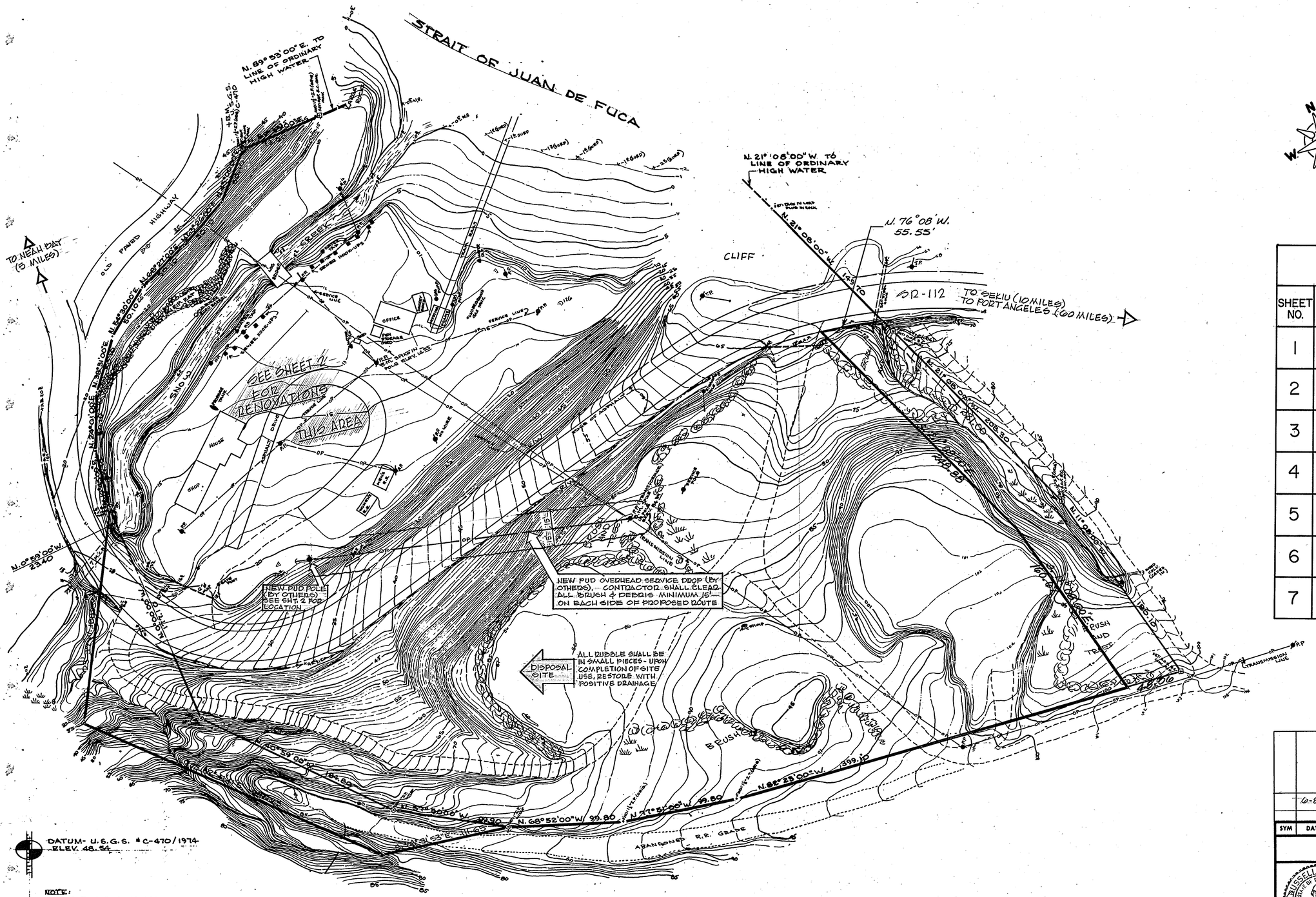
STATE OF WASHINGTON
DEPARTMENT OF FISHERIES
115 General Administration Building • Olympia, Washington 98504 • (206) 753-6600 • (SCAN) 234-6600

Snow Creek -
Got IAC Approval
Need:
1) Plan showing what we do in this Phase
~~with trees plan~~?

Shows
- Removal of House
- New Restrooms w/showers - Parks standard
- Electrical up to code
- Domestic H2O ?
- Septic System
- ~~Service Entrance~~
- Float Replacement - low priority

Permits:
-
- Corp for Floats to previous operator -

Need Shoreline



GOVERNMENT LOTS 2 & 3 OF SECTION 17, TOWNSHIP 33 NORTH, RANGE 14 WEST

N E W S

MERIDIAN - TRUE BY SOLAR OBSERVATION

PLAN LIST

SHEET NO.	TITLE
1	LOCATION PLAN
2	SITE PLAN
3	FLOOR-FOUNDATION PLANS
4	SECTIONS-DETAILS
5	ELEVATIONS-DETAILS
6	ELECTRICAL-PLUMBING
7	PLUMBING-SCHEMATIC

SYM	DATE	REVISION	BY	APP'D
	6-86	RE-SITED COMFORT STATION AND CARPOOL RACK, RELOCATED UTILITY SYSTEMS.	DA	TB
		Released for construction		

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES

RUSSELL D. WEBB — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

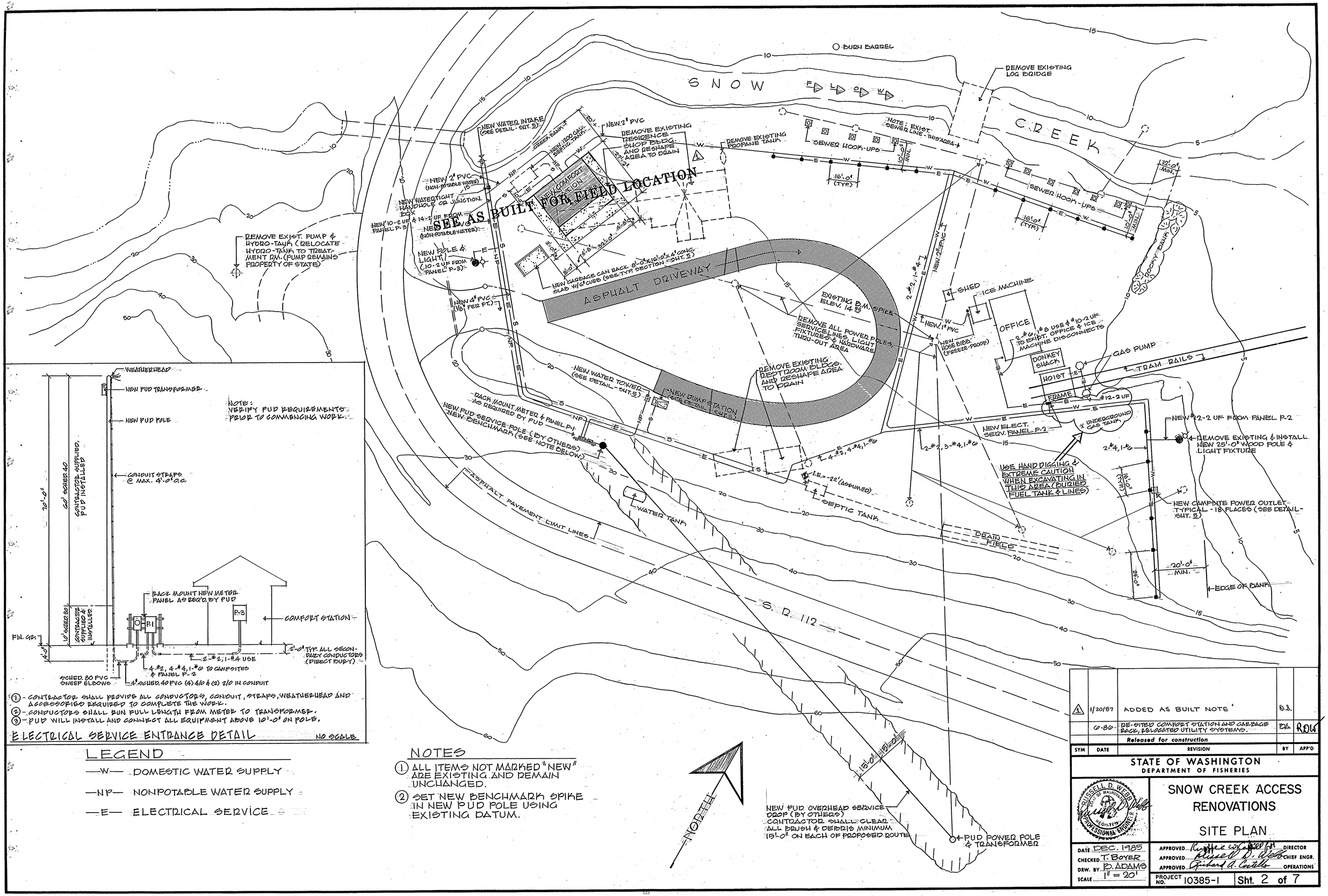
SNOW CREEK ACCESS RENOVATIONS

LOCATION PLAN

DATE DEC. 1985
CHECKED T. BOYER
DRW. BY SCJ/DA.
SCALE 1" = 40'

APPROVED Rupert W. Calvin Jr. DIRECTOR
APPROVED Russell D. Webb CHIEF ENGR.
APPROVED Richard A. Coutler OPERATIONS

PROJECT NO. 10385-1 Sht. 1 of 7



NOTE: VERIFY PUD REQUIREMENTS PRIOR TO COMMENCING WORK.

① - CONTRACTOR SHALL PROVIDE ALL CONDUCTORS, CONDUIT, STRAPS, WEATHERHEAD AND ACCESSORIES REQUIRED TO COMPLETE THE WORK.
② - CONDUCTORS SHALL RUN FULL LENGTH FROM METER TO TRANSFORMER.
③ - PUD WILL INSTALL AND CONNECT ALL EQUIPMENT ABOVE 10'-0" ON POLE.

ELECTRICAL SERVICE ENTRANCE DETAIL — NO SCALE

LEGEND

—W— DOMESTIC WATER SUPPLY
—NP— NONPOTABLE WATER SUPPLY
—E— ELECTRICAL SERVICE

NOTES

① ALL ITEMS NOT MARKED "NEW" ARE EXISTING AND REMAIN UNCHANGED.
② SET NEW BENCHMARK SPIKE IN NEW PUD POLE USING EXISTING DATUM.

SYM	DATE	REVISION	BY	APP'D
4	1/20/87	ADDED AS BUILT NOTE	D.S.	
	6-86	RE-SITED COMFORT STATION AND GARBAGE RACK, RELOCATED UTILITY SYSTEMS.	DK	RDW
		Released for construction		

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES

RUSSELL D. WEBB — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

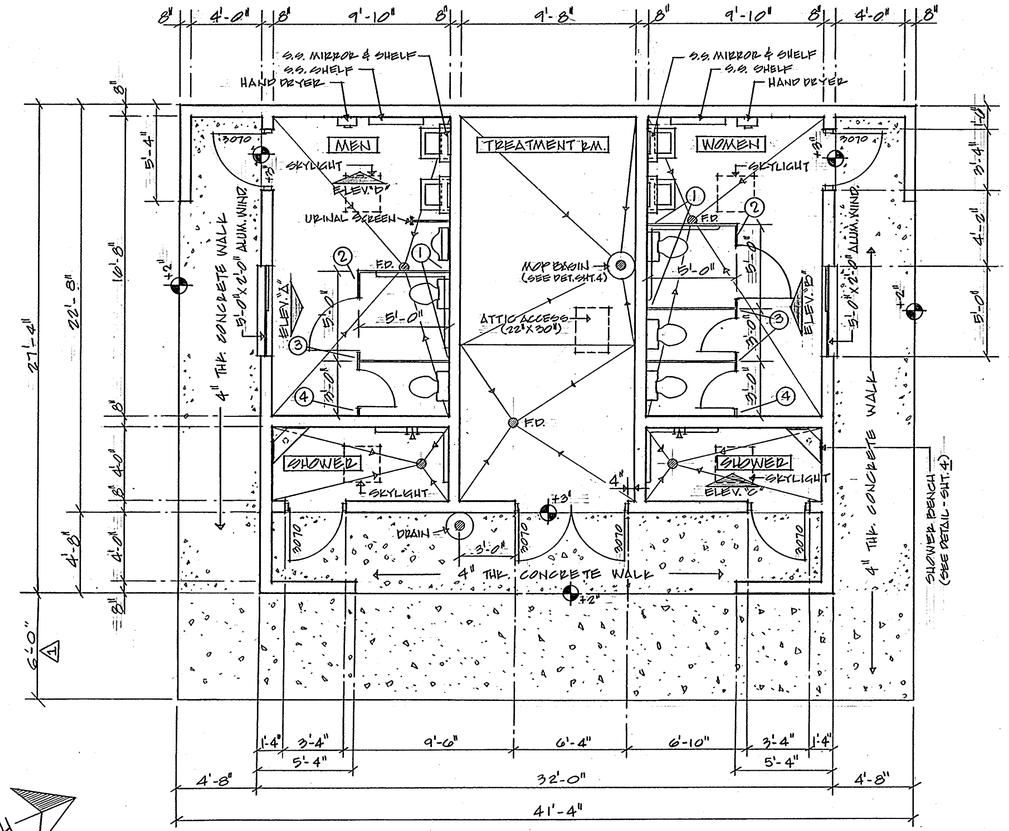
SNOW CREEK ACCESS RENOVATIONS

SITE PLAN

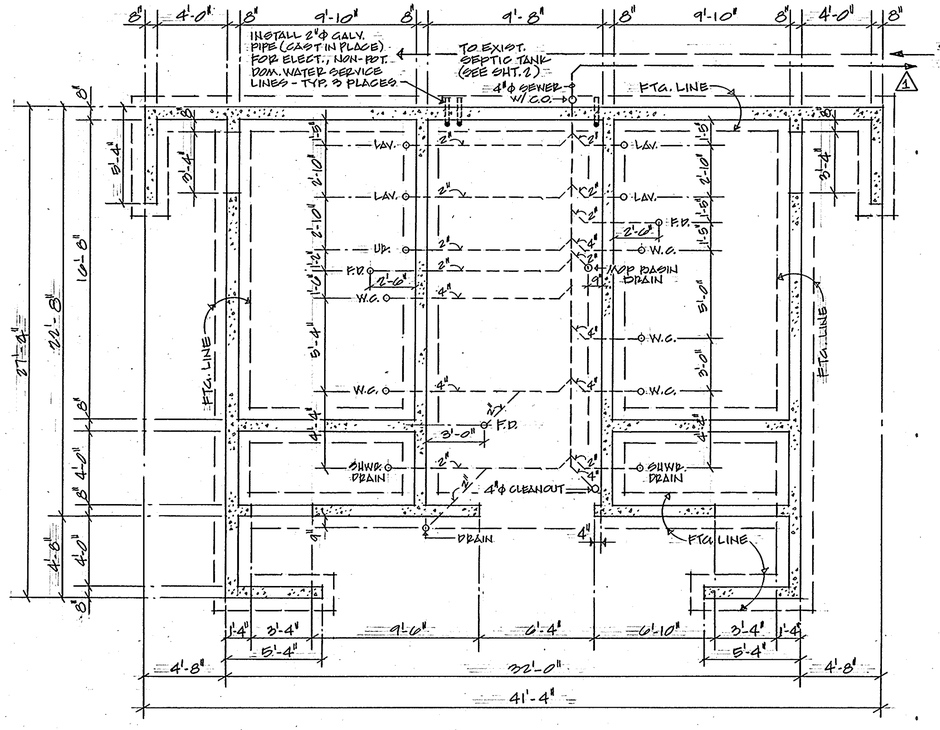
DATE DEC. 1985
CHECKED T. BOYER
DRW. BY D. ADAMS
SCALE 1" = 20'

APPROVED ... DIRECTOR
APPROVED ... CHIEF ENGR.
APPROVED ... OPERATIONS

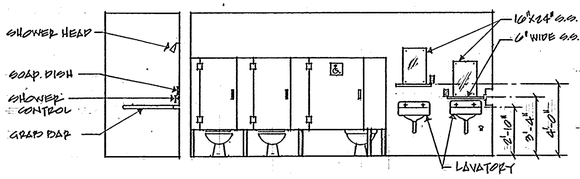
PROJECT NO. 10385-1 | Sht. 2 of 7



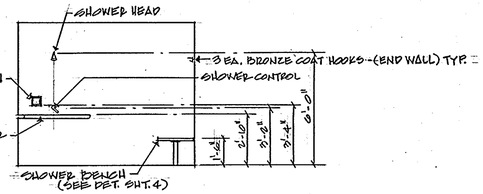
FLOOR PLAN 1/4"



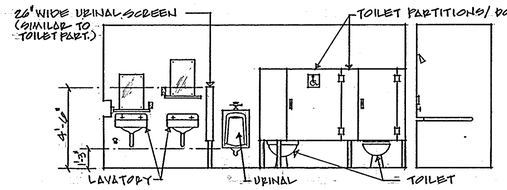
FOUNDATION PLAN 1/4"
(SEWER SYSTEM LAYOUT)



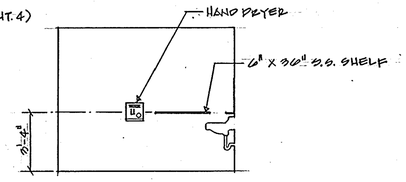
ELEV. "B"



ELEV. "C"



ELEV. "A"



ELEV. "D"

BUILDING INTERIORS 1/4"

SYM	DATE	REVISION	BY	APP'D
4	1-21-87	ADDED 6' SIDEWALK IN FRONT OF BUILDING, CHANGED SEWER	D.S.	
	6-86	RE-SITED COMPOST STATION AND GARBAGE RACK, RELOCATED UTILITY SYSTEMS.	DA	RB
		Released for construction		

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES

RUSSELL D. WEBB — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

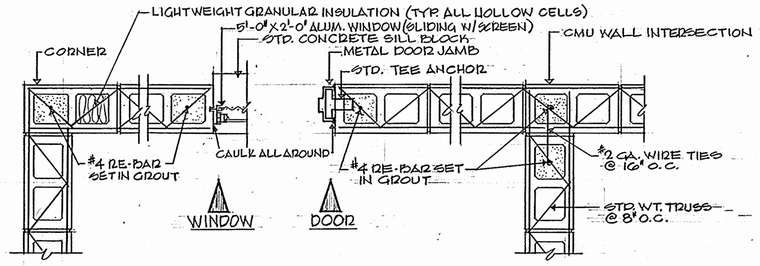
SNOW CREEK ACCESS RENOVATIONS

FLOOR-FOUNDATION PLANS

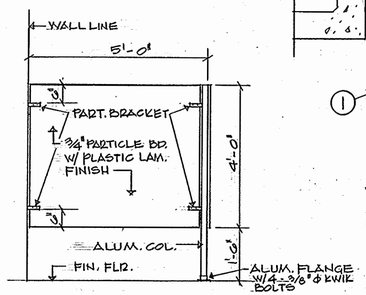
DATE DEC. 1985
CHECKED T. BOYER
DRW. BY D. ADAMS
SCALE AS NOTED

APPROVED ..... DIRECTOR
APPROVED ..... CHIEF ENGR.
APPROVED ..... OPERATIONS

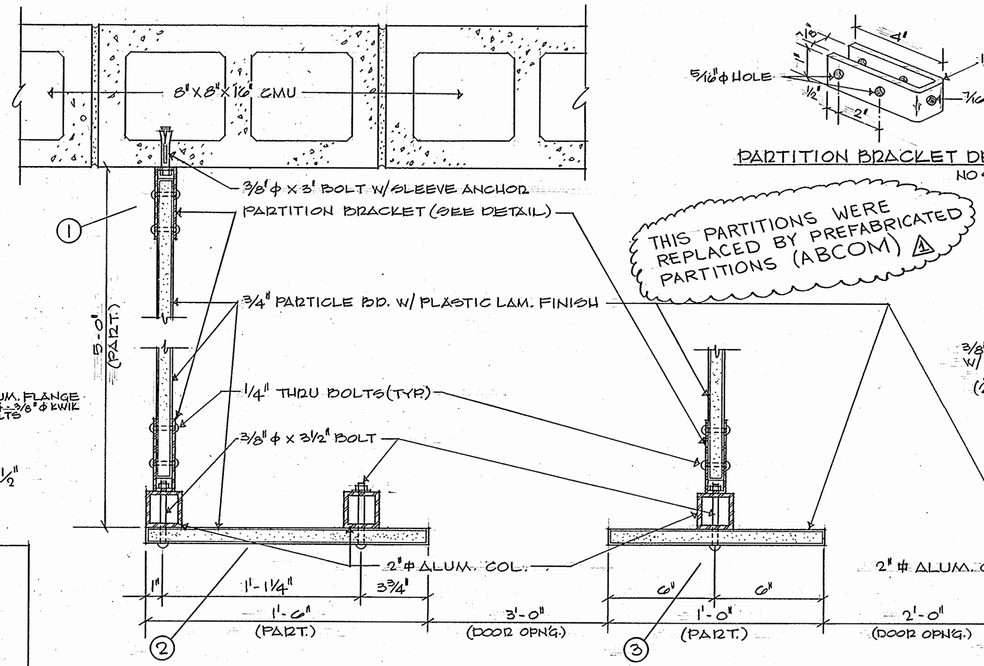
PROJECT NO. 10385-1 | Sht. 3 of 7



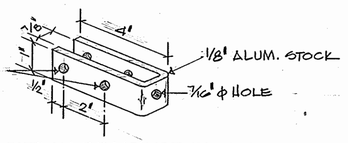
CONCRETE MASONRY UNIT WALL DETAILS 1"



PARTITION ELEVATION 1/2"



THIS PARTITIONS WERE REPLACED BY PREFABRICATED PARTITIONS (ABCOM) 4

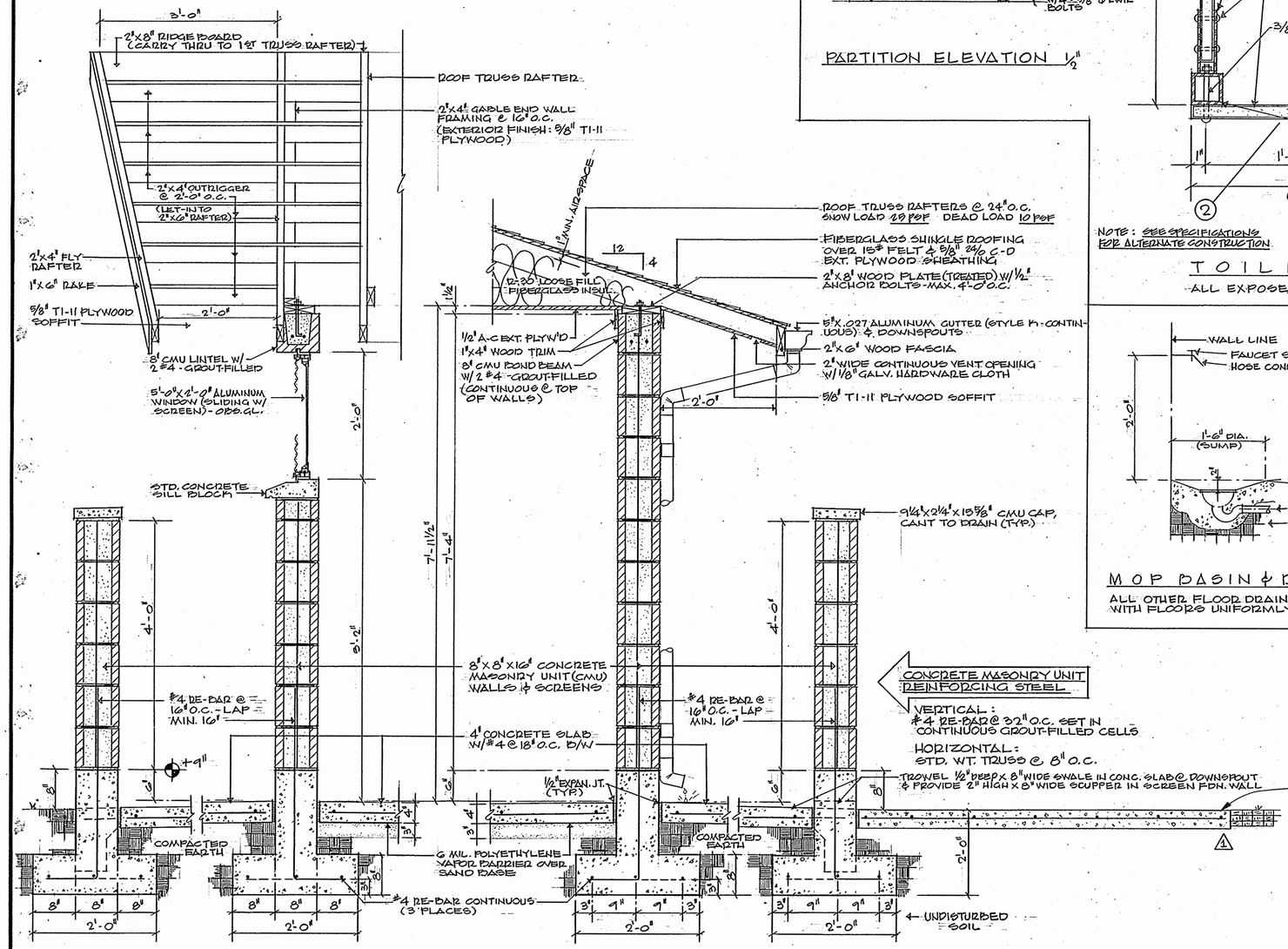


PARTITION BRACKET DETAIL
NO SCALE

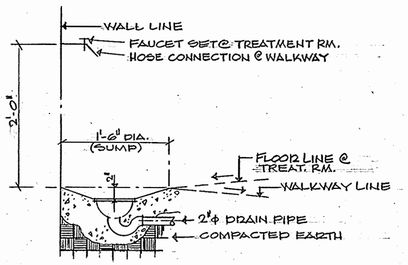
NOTE: SEE SPECIFICATIONS FOR ALTERNATE CONSTRUCTION

TOILET ROOM PARTITION DETAILS 3"

ALL EXPOSED ANCHORS & FASTENERS SHALL BE VANDAL-PROOF

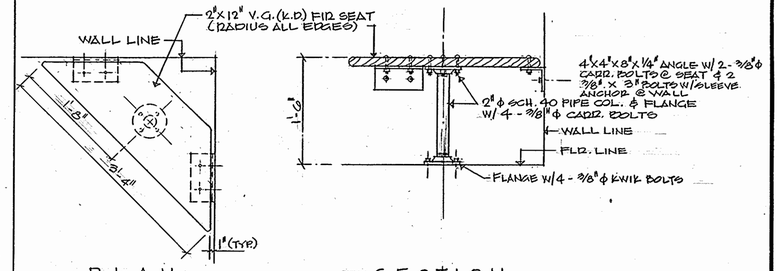


SECTIONS 1"



MOP BASIN & DRAIN DETAIL 1"

ALL OTHER FLOOR DRAINS SHALL BE INSTALLED WITH FLOORS UNIFORMLY SLOPED TO DRAIN



SHOWER BENCH DETAILS 1"

SYM	DATE	REVISION	BY	APP'D
4	1-20-87	ADDED PARTITION NOTE. ADDED BUILDING SIDEWALK.		
	6-86	RE-SITED COMFORT STATION AND GARBAGE ENCL. RELOCATED UTILITY SYSTEMS.	DA	TB
		Released for construction		

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES

RUSSELL D. WEBB — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

SNOW CREEK ACCESS RENOVATIONS

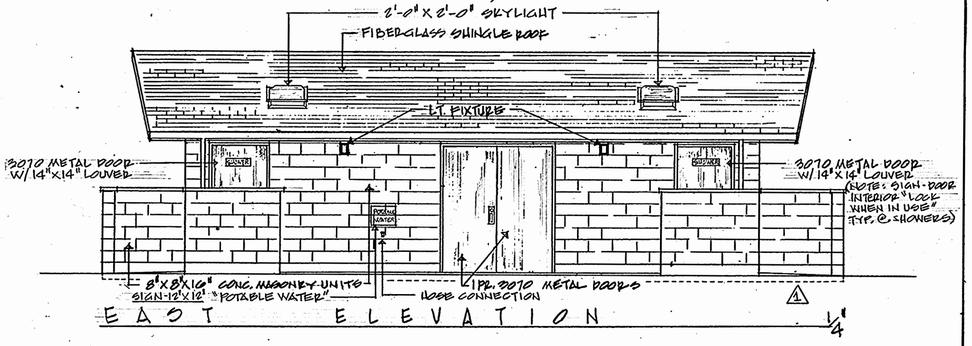
SECTIONS - DETAILS

DATE DEC 1985
CHECKED T. BOYER
DRW. BY B. ADAMS
SCALE AS NOTED

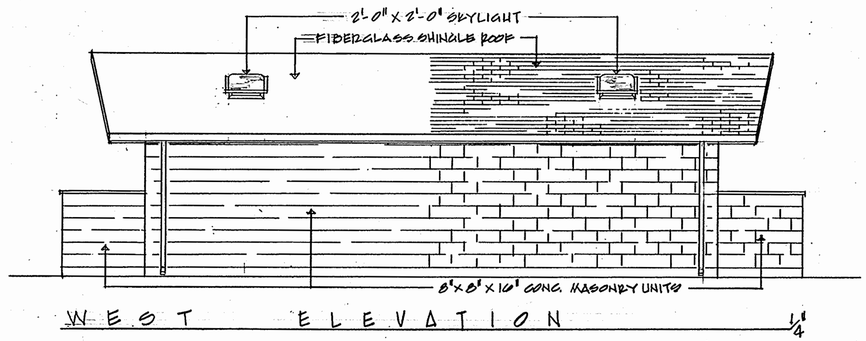
APPROVED Russell D. Webb for DIRECTOR
APPROVED Russell D. Webb CHIEF ENGR.
APPROVED Richard A. Cattle OPERATIONS

PROJECT NO. 10385-1

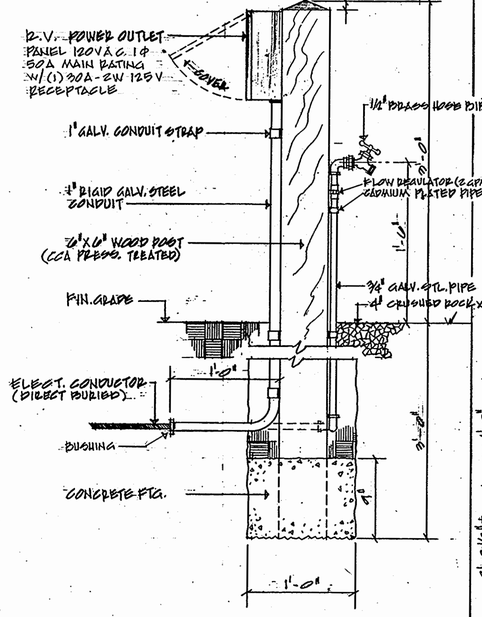
Sht. 4 of 7



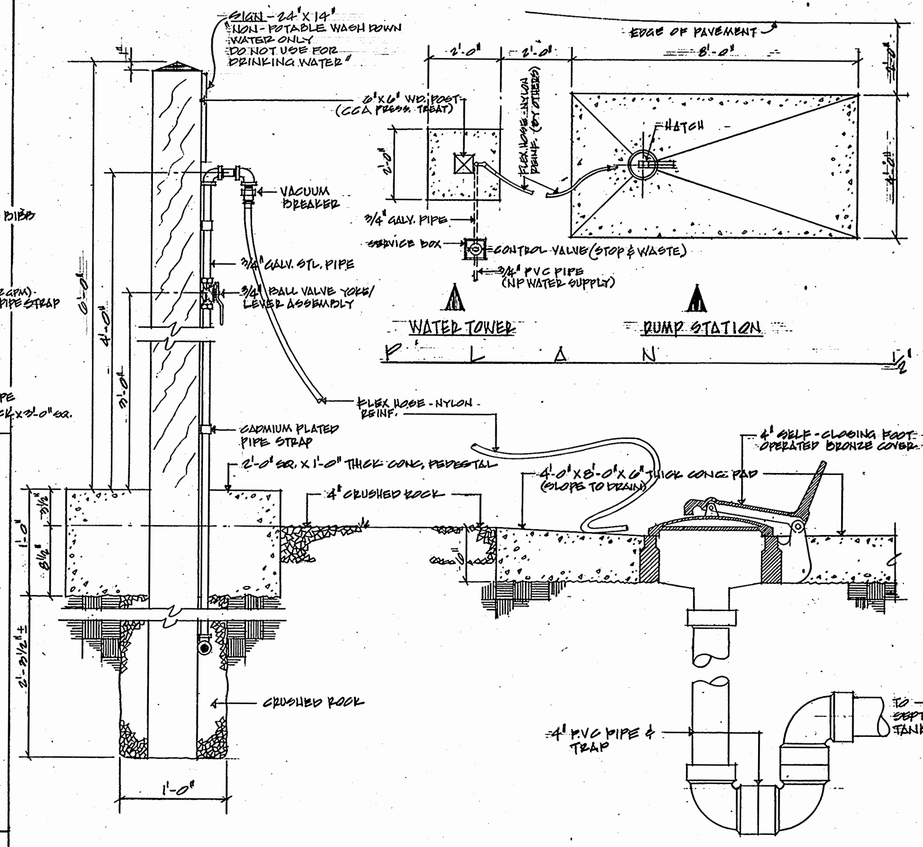
EAST ELEVATION 1/4"



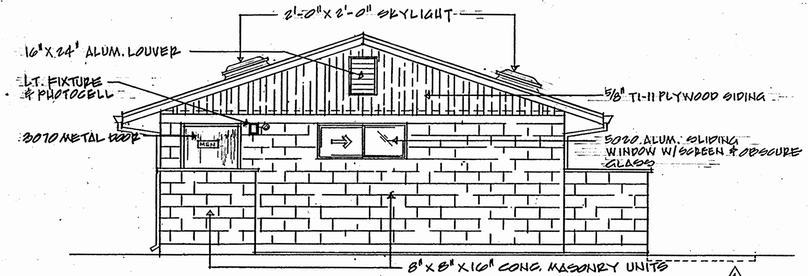
WEST ELEVATION 1/4"



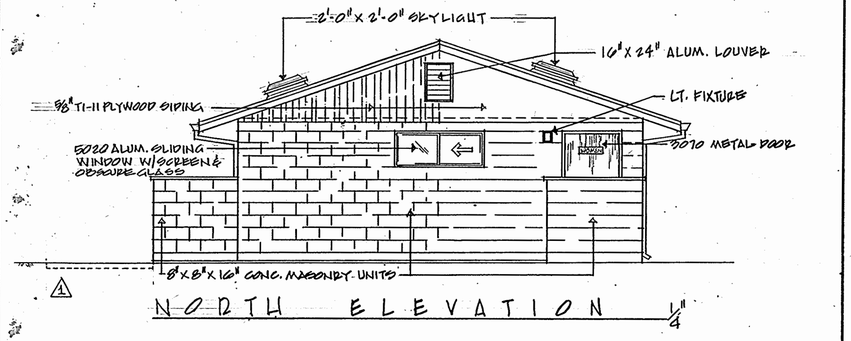
DETAIL @ CAMPSITE POWER OUTLET
(TYPICAL - 18 PLACES) 1½"



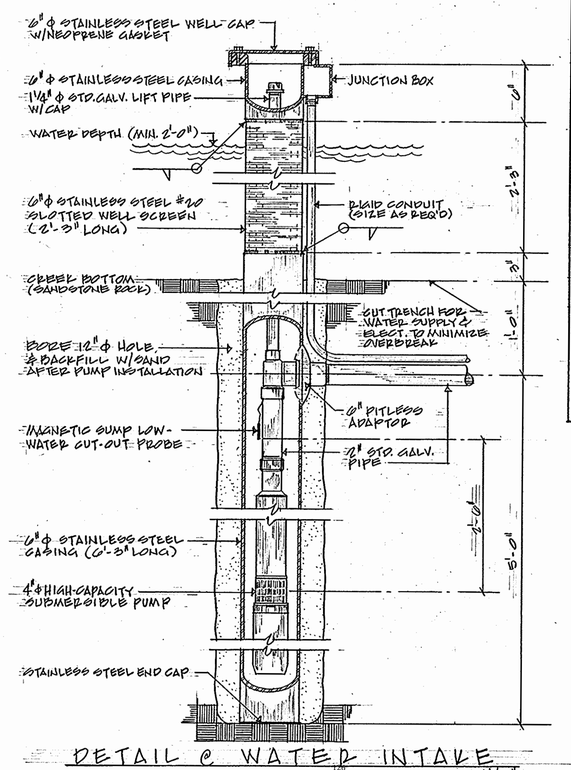
DETAIL @ WATER TOWER - DUMP STATION
1½"



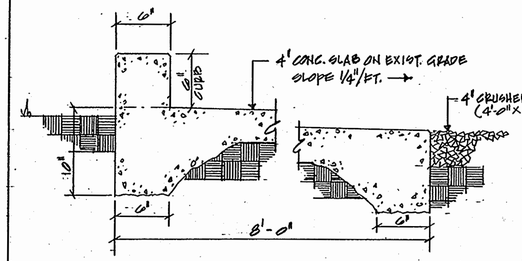
SOUTH ELEVATION 1/4"



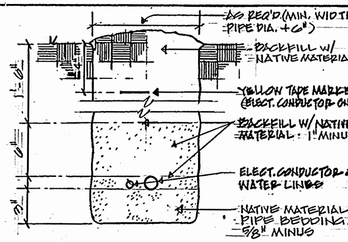
NORTH ELEVATION 1/4"



DETAIL @ WATER INTAKE
1½"



TYPICAL SECTION - GARBAGE RACK
1½"



TYPICAL TRENCH DETAIL
(SEE SPECS. FOR COMPACTION REQUIREMENTS) 1½"

SIGNS

SHALL BE CONSTRUCTED OF 1/4" ALUMINUM PLATE WITH 3M "SCOTCH LITE" REFLECTIVE SHEETING BACKGROUND AND LETTERING (IN CONTRASTING COLOR)

LETTERING SHALL BE 1" HIGH

SYM	DATE	REVISION	BY	APP'D
4	1-21-87	ADDED 6' SIDEWALK	D.S.	
	6-86	RE-SITED COMFORT STATION AND GARBAGE RACK, RELOCATED UTILITY SYSTEMS.	DA	TD
		Released for construction		

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES

RUSSELL D. WEED — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

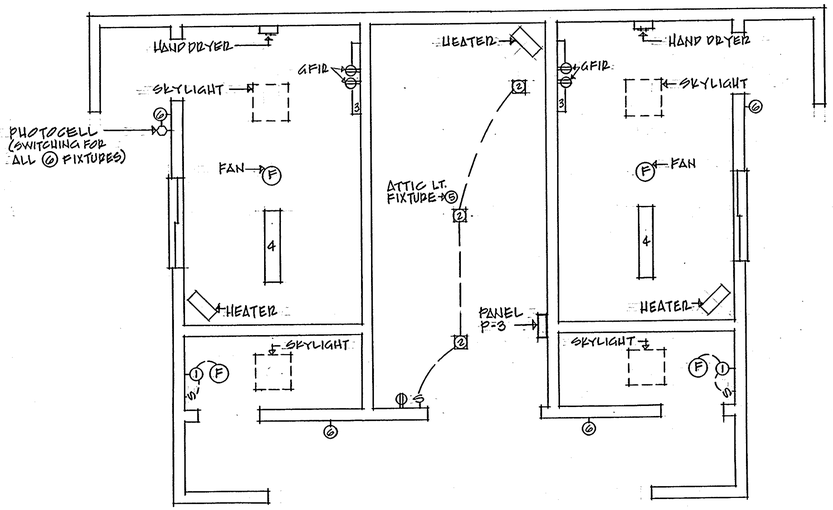
SNOW CREEK ACCESS RENOVATIONS

ELEVATIONS —— DETAILS

DATE DEC. 1985
CHECKED T. BOYER
DRW. BY B. ADAMS
SCALE AS NOTED

APPROVED Ronald Carlson DIRECTOR
APPROVED Russell D. Weed CHIEF ENGR.
APPROVED Richard A. Costello OPERATIONS

PROJECT NO. 10385-1 Sht. 5 of 7

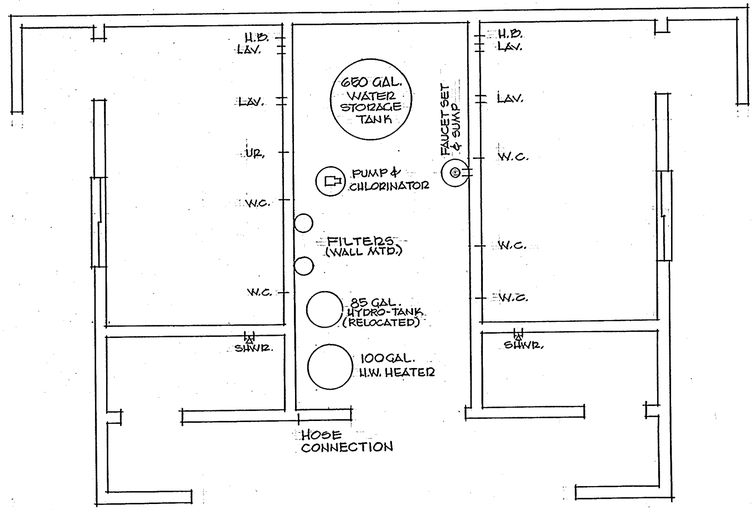


NOTES:
WIRE LIGHTS & FANS DIRECT TO CIRCUIT BREAKERS (NO SWITCHING), EXCEPT AT TREATMENT ROOM & SHOWERS

DUCT FANS TO GABLE VENTS

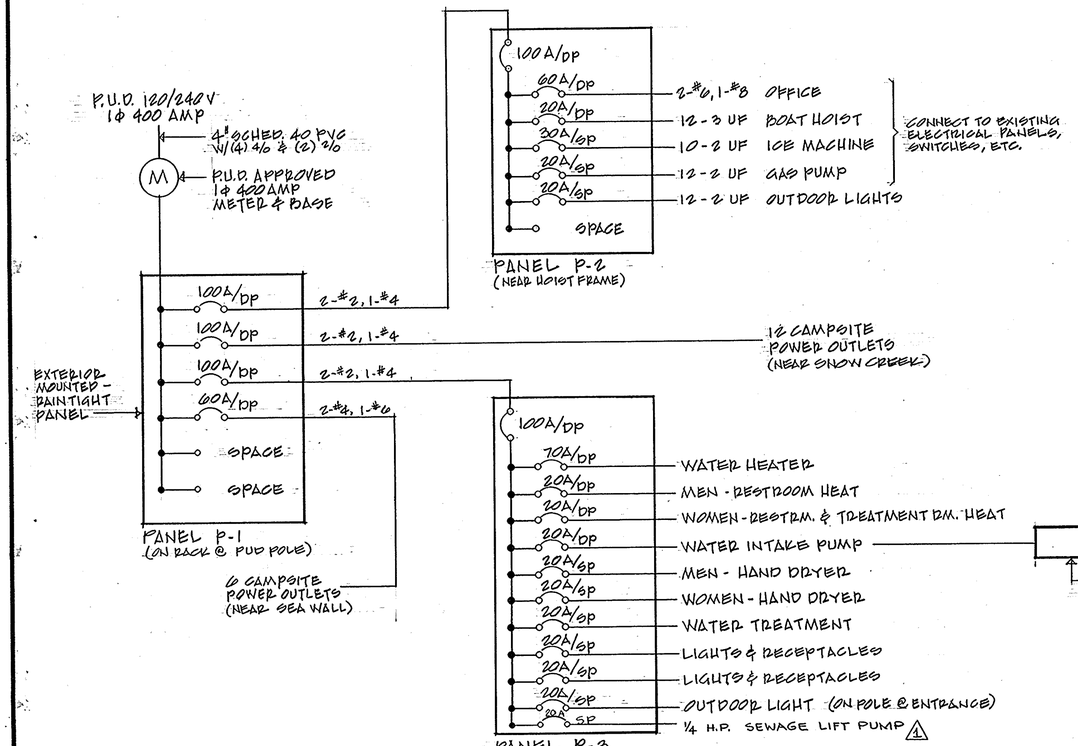
LIGHTS, FANS & SWITCHES IN SHOWER ROOMS SHALL BE U.L. APPROVED FOR DAMP LOCATIONS

E L E C T R I C A L P L A N 1/4"

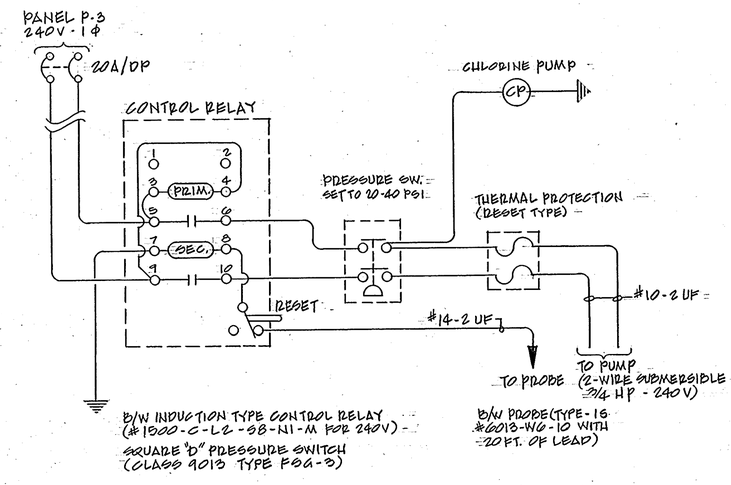


○ 1/4 H.P. SEWAGE LIFT PUMP (4)

P L U M B I N G P L A N 1/4"
(PIPING SCHEMATIC - SHEET NO.7)



E L E C T R I C A L P A N E L L A Y O U T S



P U M P C O N T R O L S S C H E M A T I C

LIGHTING FIXTURES

①	KENALL # 3663
②	KENALL # 3990
③	KENALL # 7140
④	KENALL # 7135
⑤	G.E. #5753-7 (LAMPHOLDER)
⑥	KENALL #5200 MINI-PAK HP6

SYM	DATE	REVISION	BY	APP'D
4	1-21-87	ADDED LIFT PUMP & ELECTRICAL CIRCUIT	G.S.	
	6-86	RE-SITED COMFORT STATION AND GARBAGE PACK, RELOCATED UTILITY SYSTEMS.	DA	MB
		Released for construction		

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES

RUSSELL D. WEBB — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

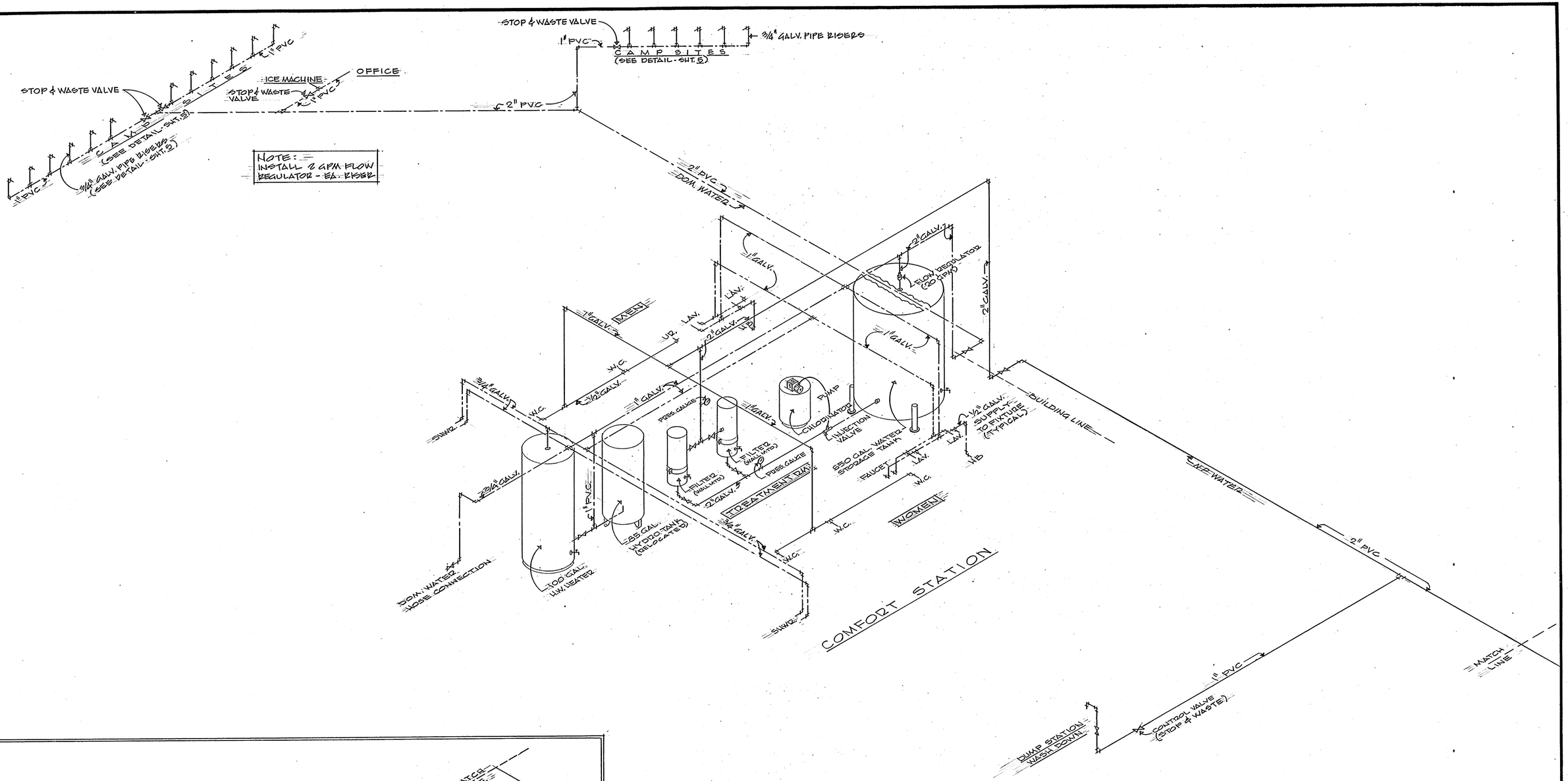
SNOW CREEK ACCESS RENOVATIONS

ELECTRICAL — PLUMBING

DATE DEC. 1985
CHECKED T. BOYER
DRW. BY D. ADAMS
SCALE AS NOTED

APPROVED [signature] DIRECTOR
APPROVED [signature] CHIEF ENGR.
APPROVED [signature] OPERATIONS

PROJECT NO. 10385-1 | Sht. 6 of 7



LEGEND

- DOMESTIC COLD WATER SUPPLY
- DOMESTIC HOT WATER SUPPLY
- NONPOTABLE WATER SUPPLY

NOTE
CONTRACTOR'S OPTION

COPPER TUBING MAY BE USED IN LIEU OF GALVANIZED PIPE IN SIZES INDICATED:

GALVANIZED	COPPER
2"	1 1/2"
1"	3/4"
3/4"	3/4"
* 1/2"	* 1/2"

* MINIMUM PIPE SIZE TO ALL FIXTURES

SYM	DATE	REVISION	BY	APP'D
	6-86	RE-SITED COMFORT STATION AND GARBAGE RACK, RELOCATED UTILITY SYSTEMS.	DA	TB
		Released for construction		

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES

RUSSELL D. WEBB — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

SNOW CREEK ACCESS RENOVATIONS

PLUMBING SCHEMATIC

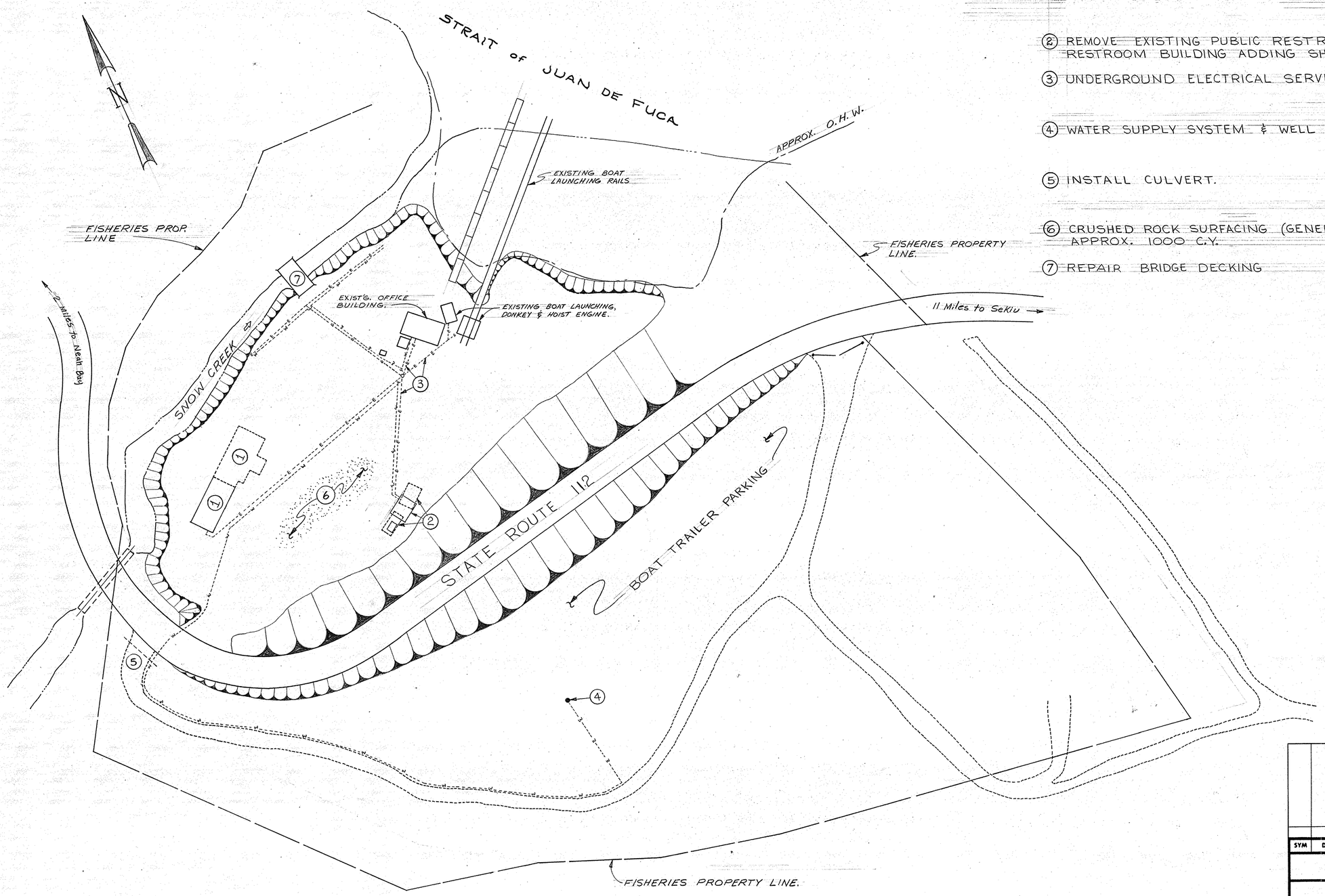
DATE DEC. 1985
CHECKED T. BOYER
DRW. BY D. ADAMS
SCALE NONE

APPROVED ... DIRECTOR
APPROVED Russell D. Webb CHIEF ENGR.
APPROVED ... OPERATIONS

PROJECT NO. 10385-1 | Sht. 7 of 7

PROPOSED IMPROVEMENTS

1. REMOVE RESIDENCE & REPAIR SHOP
2. REMOVE EXISTING PUBLIC RESTROOMS & REPLACE WITH NEW RESTROOM BUILDING ADDING SHOWERS & TRAILER DUMP STATION
3. UNDERGROUND ELECTRICAL SERVICE.
4. WATER SUPPLY SYSTEM & WELL
5. INSTALL CULVERT.
6. CRUSHED ROCK SURFACING (GENERAL GRADING MAY BE REQD.) APPROX. 1000 C.Y.
7. REPAIR BRIDGE DECKING



SYM	DATE	REVISION	BY	APP'D
		Released for construction		

M6418-4-001

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES

SNOW CREEK

PROPOSED IMPROVEMENTS

DATE 12/12/84
CHECKED
DRW. BY DB
SCALE 1" = 40'

APPROVED ..... DIRECTOR
APPROVED ..... CHIEF ENGR.
APPROVED ..... OPERATIONS

PROJECT NO.

Sht. 1 of 1

Tab H
Water System

S F No. 369—1-57 -3M 47979 O S

CERTIFICATE RECORD No. 17, PAGE No. 8408

STATE OF WASHINGTON, COUNTY OF Clallam

1643 v

CERTIFICATE OF SURFACE WATER RIGHT

(In accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the State Supervisor of Water Resources thereunder.)

This is to certify that JOHN and ELEANOR PATTISON

of Neah Bay, *State of* Washington, *has made proof to the satisfaction of the State Supervisor of Water Resources of Washington, of a right to the use of the waters of* Swan Ck. and an unnamed stream *tributary of* Strait of Juan de Fuca, *with point or points of diversion within the* Govt. Lot 2 Sec. 17, *Twp.* 33 *N., R.* 14 W., *W. M., under and subject to provisions contained in* Appropriation *Permit No.* 12249 *issued by the State Supervisor of Water Resources, and that said right to the use of said waters has been perfected in accordance with the laws of Washington, and is hereby confirmed by the State Supervisor of Water Resources of Washington and entered of record in Volume* 17, *at Page* 8408, *on the* 23rd *day of* April, 19 62 *that the priority date of the right hereby confirmed is* October 21, 1960; *that the amount of water under the right hereby confirmed, for the following purposes is limited to an amount actually beneficially used and shall not exceed* 0.05 of a cubic foot per second, for group domestic supply.

A description of the lands under such right to which the water right is appurtenant, and the place where such water is put to beneficial use, is as follows:

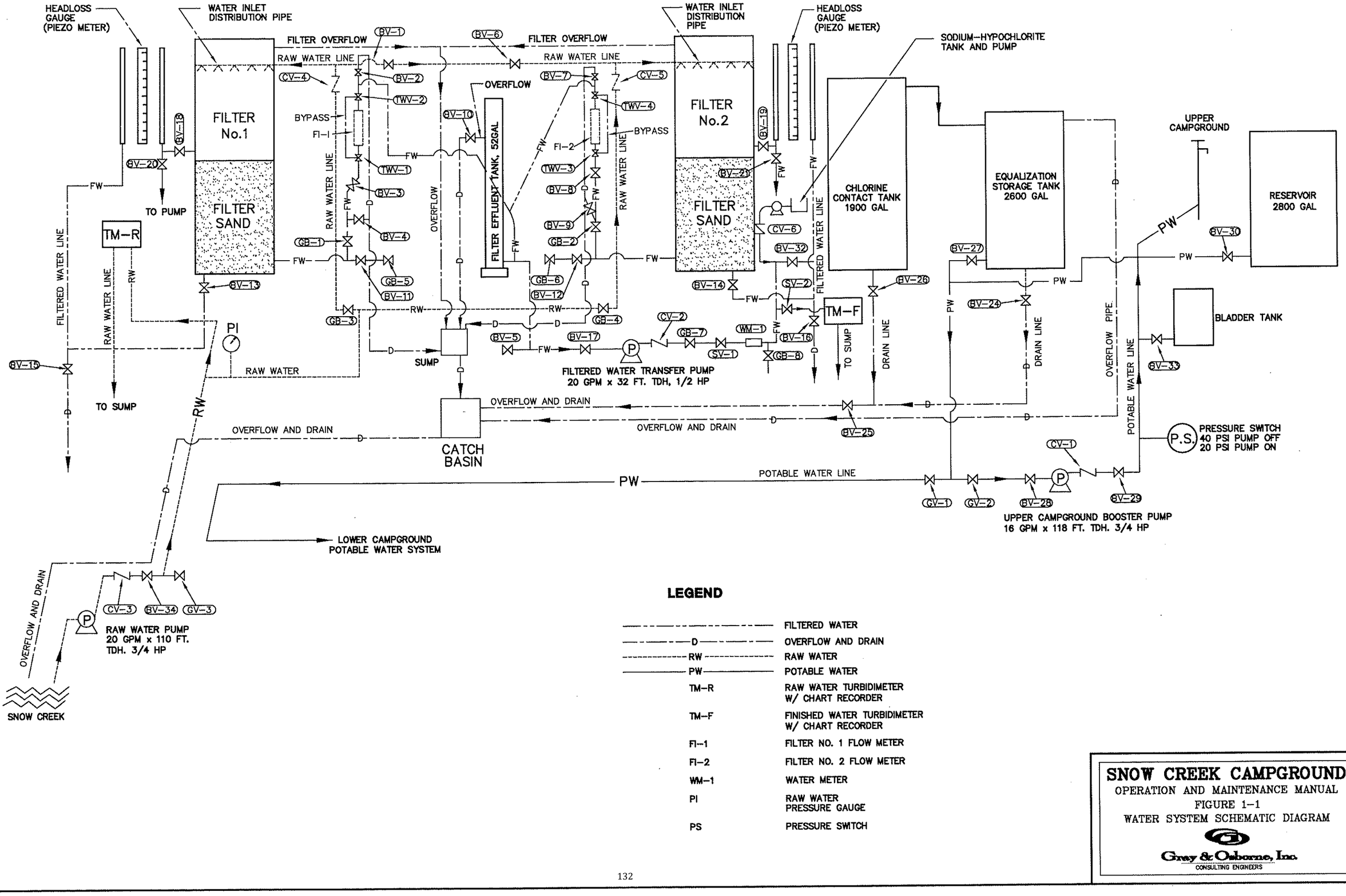
Commencing at a point which is 1919.5 feet east and 240.0 feet due north of the section corner common to Sections 17, 18, 19, 20, T. 33 N., R. 14 W.W.M.; thence north 82°23' west 399.1 feet; thence north 77°51' west 99.8 feet; thence north 68°52' west 99.8 feet; thence north 57°30' west 99.9 feet; thence north 40°59' west 184.8 feet; thence north 177.1 feet; thence around a curve to the right on the following distances and bearings; north 30°45' east 50.1 feet; thence north 24°01' east 50.1 feet; thence north 36°31' east 50.1 feet; thence north 54°30' east 50.1 feet; thence north 68°27' east 50.1 feet; thence north 63°26' east 50.1 feet; thence north 45° east 50.1 feet; thence leaving said road north 89°53' east 79.0 feet; thence south 11°05' west 69.2 feet; thence south 38°24' east 229.0 feet; thence north 78°45' east 170.3 feet; thence south 54°40' east 42.0 feet; thence south 21°08' east 358.0 feet; thence south 11°08' east 180.1 feet to the point of beginning.

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in Sections 6 and 7, Chapter 122, Laws of 1929.

WITNESS the seal and signature of the State Supervisor of Water Resources affixed this

23rd *day of* April, 19 62

State Supervisor of Water Resources.



LEGEND

———	FILTERED WATER
———D———	OVERFLOW AND DRAIN
---------RW---------	RAW WATER
———PW———	POTABLE WATER
TM-R	RAW WATER TURBIDIMETER W/ CHART RECORDER
TM-F	FINISHED WATER TURBIDIMETER W/ CHART RECORDER
FI-1	FILTER NO. 1 FLOW METER
FI-2	FILTER NO. 2 FLOW METER
WM-1	WATER METER
PI	RAW WATER PRESSURE GAUGE
PS	PRESSURE SWITCH

SNOW CREEK CAMPGROUND
OPERATION AND MAINTENANCE MANUAL
FIGURE 1-1
WATER SYSTEM SCHEMATIC DIAGRAM

Gray & Osborne, Inc.
CONSULTING ENGINEERS

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
SOUTHWEST DRINKING WATER REGIONAL OPERATIONS
PO Box 47823, Olympia, Washington 98504-7823
TDD Relay 1-800-833-6388

July 7, 2017

Brian Calkins
Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, Washington 98501-1091

Subject: Snow Creek Access Water System, ID #36851A, Clallam County; Water System Standard Operating Procedures Requirements and Bilateral Compliance Agreement Docket #2017-BCA-0006

Dear Brian Calkins:

The Office of Drinking Water (ODW) will require the Washington Department of Fish and Wildlife (WDFW) to enter into a new Bilateral Compliance Agreement (BCA) with our office and to take all actions required in the enclosed BCA prior to opening the Snow Creek Access surface water treatment facility for the 2018 season. Specifically, by March 31, 2018, you must compile and submit to this office, a Standard Operating Procedures (SOPs) manual that documents all activities related to the operation of the surface water treatment facility. By March 31, 2018, you must also provide documentation that the significant findings called out in the September 7, 2016, sanitary survey have been corrected. See the enclosed BCA for more information.

The following activities must be included in the required SOPs:

1. An operations contract identifying a certified operator with at least a Water Treatment Plant Operator 1 (WTPO1) certification and in good standing with ODW before the plant is scheduled to begin operation (WAC 246-290-630(5)). The plant shall not be started for filter ripening or other operations until the certified operator has been identified and the Water Facilities Inventory (WFI) has been updated. The operator is expected to be at the water treatment site daily for a minimum of one hour each day the system is in service.
2. Arrange for a site visit with ODW staff. The system operator must demonstrate all monitoring equipment is installed, calibrated, and taking satisfactory readings for compliance purposes. The operator must also demonstrate an understanding of the monitoring and reporting requirements for the surface water treatment system (WAC 246-290-415(5)).
3. The operator shall test and demonstrate critical alarms for low chlorine and high turbidity, call-outs, and shutdown during the site visit.
4. Demonstrate the slow sand filter is properly ripened. The ripening period shall be a minimum of four weeks and be performed according to ODW's "Slow Sand Filtration Recommended Operational Practices and Optimization Goals". Provide daily logs showing filter loading rates, raw and filtered turbidities, raw and finished total coliform levels, and note if there were any interruptions to the ripening period. Raw and finished water total coliforms (numeric) should be taken on a weekly basis until the filters are placed into service. Please make sure all water is sent to waste and not to the storage tanks during the ripening period. Also, please note when the slow sand filters were scraped prior to placing into service.

5. Demonstrate adequate disinfection with chlorine feed prior to the storage tanks and adequate chlorine residual after the storage tanks to achieve 1-log *Giardia* inactivation.
6. Demonstrate a detectable chlorine residual in the distribution system.
7. Take a distribution coliform sample at the farthest location in the distribution system and obtain a satisfactory distribution coliform sample.
8. Inspect the storage tanks and verify the storage tanks are in proper working condition.

WDFW must receive approval from ODW prior to serving water to the public on an annual basis. If any of the aforementioned criteria cannot be met to the satisfaction of ODW, then the system will be expected to operate dry or will be placed on a Boil Water Advisory and regulatory action will be initiated according to RCW 70.119A.040.

Please sign and date both of the enclosed BCAs, then return one to the address above in the enclosed postage paid envelope by August 7, 2017.

For technical assistance, please contact Teresa Walker at (360) 236-3032 or by e-mail at teresa.walker@doh.wa.gov. You may contact Jocelyne Gray with general questions at (360) 236-3034 or by e-mail at jocelyne.gray@doh.wa.gov. For additional technical assistance, you can access ODW's website at http://www.doh.wa.gov/ehp/dw.

Sincerely,

Jocelyne Gray, P.E.
Office of Drinking Water, Regional Engineer

Teresa Walker, P.E.
Office of Drinking Water, Regional Engineer

Enclosures

cc: Craig Matson, Washington Department of Fish and Wildlife
Sue Waldrip, Clallam County Health and Human Services
Linda Kildahl, ODW

STATE OF WASHINGTON

DEPARTMENT OF HEALTH

SOUTHWEST DRINKING WATER REGIONAL OPERATIONS

PO Box 47823, Olympia, Washington 98504-7823

TDD Relay 1-800-833-6388

BILATERAL COMPLIANCE AGREEMENT
SNOW CREEK ACCESS WATER SYSTEM AND
WASHINGTON STATE DEPARTMENT OF HEALTH

DOCKET #2017-BCA-0006

The following compliance agreement is hereby established between the Washington State Department of Health (hereafter, Department) and the Snow Creek Access Water System, ID #36851A, a Group A Transient Non-Community water system in Clallam County (hereafter, Purveyor).

The purpose of this compliance agreement is to formalize a schedule to support compliance with Part 6, Chapter 246-290 WAC – Surface Water Treatment Rule and to keep the system in substantial compliance while the Purveyor works to resolve surface water treatment and sanitary survey violations prior to opening for the 2018 season.

Prior to opening for the 2018 season, the Purveyor agrees to:

1. Submit Standard Operating Procedures (SOPs) for the slow sand filtration treatment by March 31, 2018 in accordance with WAC 246-290-654(5). The cover letter contains specific information on what must be included in the SOP.
2. Provide documentation that the significant findings identified in the September 7, 2016, sanitary survey follow-up letter have been corrected by March 31, 2018. The outstanding items are:
    a. Install downward facing vents screened with 24-mesh on the reservoirs.
    b. Replace the distribution pump so that the plant runs reliably.
3. Monitor and Report. In accordance with Part 6, WAC 246-290, monitor and report on a Department approved surface water treatment form for each month of system operation. Reports must be signed by the system's certified operator and be received by the 10th of each month following operations. To return to compliance, you must conduct six consecutive months of treatment operations with no surface water treatment violations.

The Department agrees to:

1. Defer Any Enforcement. The Department shall defer any enforcement actions for this violation as long as the conditions of this agreement are being met.
2. Mediation. The Department shall intercede on behalf of the Purveyor with the United States Environmental Protection Agency (USEPA) for the violations addressed in this agreement as long as the conditions of this agreement are being met.
3. Renegotiate Agreement. The Department agrees to renegotiate the level of activity of the schedules identified in this agreement if requested by the Purveyor.

4. Terminate Agreement. The Department agrees to terminate this agreement if requested by the Purveyor.

It is understood that failure to comply with this agreement without reasons acceptable to the Department may result in the termination of this agreement, categorization of the operating permit as red, and the issuance of a notice of correction or referral to the USEPA for enforcement. Failure to comply with a notice of correction may result in the imposition of penalties of up to $5,000 per day, per violation.

All documents or reports required by this agreement, questions about compliance, and requests to modify this agreement shall be directed to Linda Kildahl, Southwest Drinking Water Operations, PO Box 47823, Olympia, Washington 98504-7823

Please include the docket number #2017-BCA-0006 in any submittals or correspondence regarding this BCA.

WASHINGTON STATE DEPARTMENT OF HEALTH	SNOW CREEK ACCESS WATER SYSTEM REPRESENTATIVE
Bonnie Waybright	
(Signature)	*(Signature)*
Bonnie Waybright, Regional Manager	
(title)	*(title)*
7-12-17	
(date)	*(date)*
(360) 236-3025	
(phone)	*(phone)*

STATE OF WASHINGTON
DEPARTMENT OF HEALTH
SOUTHWEST DRINKING WATER REGIONAL OPERATIONS
P.O. Box 47823 Olympia, Washington 98504-7823
TDD Relay 1-800-833-6388

September 7, 2016 Brian Calkins 48 Devonshire Rd Montesano, Washington 98563	Snow Creek Access ID #36851A	
	County:	Clallam
	System Type:	A-TNC
	Operating Permit Color:	Green
	Surveyor:	Jester Purtteman and Teresa Walker
	Inspection Date:	August 1, 2016

Thank you for meeting with me to conduct a survey of this water system. Sanitary surveys are the Office of Drinking Water's (ODW) way to inspect public water systems through a field visit. ODW is also able to offer technical assistance to help utilities improve their system operations and ensure that public health is protected.

This report documents the findings of this survey. Deficiencies that need your attention are summarized below. As you correct the items, send me documentation that demonstrates the items have been completed as directed. Include the system name, ID number, and the date the deficiencies were corrected. You can send them to me by e-mail at jester.purtteman@doh.wa.gov or by mail at PO Box 47823, Olympia, Washington 98504-7823.

If you are not able to correct these deficiencies, you must submit a Corrective Action Plan by the date assigned describing how and when the work will be completed.

SIGNIFICANT DEFICIENCIES* - NONE

SIGNIFICANT FINDINGS - BY OCTOBER 21, 2016**

1. Turbidimeters are required to be calibrated on a quarterly basis. Please calibrate the combined filter effluent (Hach) turbidimeter and the benchtop turbidimeter.
2. Please report turbidity and chlorine residuals to the thousands (e.g. 0.048, not rounded to 0.05).
3. Please report the pressure drop across the filter to the nearest one tenth of one foot.
4. The reservoirs appear to be unvented. **Please install a downward facing vent screened with 24-mesh screen.**
5. The booster pump providing pressure to the upper sites is leaking, has faulty electrical wiring, and shows evidence of significant corrosion. This pump, the pedestal it is affixed to, the electrical, and the plumbing that is leaking should all be replaced. The faulty wiring has reportedly led to depressurization of the upper portion of the system, disabling the chlorine monitoring system leading to a complete shutdown. **Please replace the distribution pump so that the plant runs reliably.**

OBSERVATIONS

6. Monthly treatment plant reports must be signed by the certified operator in responsible charge.
7. The bladder tank is not protected by a Pressure Relief Valve (WAC 296-104-316).
8. Please submit a Watershed Control Plan for review and approval.

RECOMMENDATIONS

9. The operator was unaware that the system has a Small Water System Management Program. We recommend providing the operator with a copy of the program and giving them the resources to update it as necessary to keep it current.
10. The system does not have accurate maps or diagrams for the operator to use. The system should develop improved diagrams and maps of the system to aid in troubleshooting and repairs.
11. The operator only has two valves to control water service to the entire system. Additional valves would permit service and repair with much less downtime.
12. The system should keep a replacement pump and controls on site to provide reliable water service in the event of a failure. We also recommend providing backup power adequate to meet production and treatment requirements in a power outage. Failure to keep the slow sand system hydrated and fed could damage the schmutzdecke layer.
13. A filter ripening plan should be prepared and submitted to ODW for approval as part of the standard operating procedures. The plan should recommend a filter ripening period of no less than four weeks and contain criteria to determine when the filter is ripened. This will ensure that the plant is able to open in May.
14. The filter should be scraped at the end of each season.
15. Please install a flow meter to accurately measure the flow out of the storage tank.

SYSTEM INFORMATION

The Snow Creek Access water system serves the Snow Creek Resort and a fishing camp with 60 non-residential connections consisting of RV spaces, rental cabins, tent sites, a boat launch, and an office. The resort is typically open from May through September. Raw water is pumped from Snow Creek which has a small impoundment to a treatment system consisting of two slow sand filters with chlorine disinfection. The system has one storage tank and two tanks used for contact time. Prior to a modification completed in 2013, two of the tanks were used for equalization. There is one booster pump station that provides pressurized water to the upper campground. The lower campground is fed by gravity from the reservoirs.

This system has a yellow operating permit, because our office had not approved the system or treatment plant pilot study. This system can obtain a green permit once the contact time (CT) evaluation, watershed control plan, and Operations and Maintenance (O&M) program have been approved, the boil water advisory has been rescinded, and you have submitted a service area map and description of the existing connections.

SECTION 1: SOURCE

The sole source of this system is the Snow Creek from where water is pumped to the treatment plant. The raw water intake is a stainless steel screen that lies in the creek upstream of a small impoundment. The raw water pump is a 1.5-horse power (hp) about 20 gallons per minute (gpm) centrifugal pump located next to the creek in a fenced area inside a plastic enclosure. It is unclear how exactly it is being controlled. It pumps to the slow sand filters, which are open to the atmosphere.

RAW WATER PUMP	Source 1	
	Yes	No
Number of pumps	1	
Frequency of routine site visit	Daily	
Isolation valves	☐	☒
Pressure gauge(s)	☐	☒
Pressure relief valve	☐	☒
Pump failure alarm	☐	☒
Control systems functional	☒	☐
Protected from flooding	☒	☐
Redundant pumps	☐	☒
Equipment in good condition	☒	☐
Generator available	☐	☒
Generator has automatic startup	☐	☐
Generator fuel source		

BUILDINGS/ENCLOSURE	Source ID #01	
	Yes	No
Facility secure	☒	☐
Structure in good condition	☒	☐

The system should keep a replacement pump and controls on site to provide reliable water service in the event of a failure. We also recommend providing backup power adequate to meet production and treatment requirements in a power outage.

SECTION 2: DISINFECTION

This system adds sodium hypochlorite to the water. The disinfection treatment is required to achieve 1-log Giardia and 3-log virus inactivation. For details, please see the enclosed surface water treatment plant report.

SECTION 3: OTHER TREATMENTS

This system does not have any other treatments.

SECTION 4: DISTRIBUTION SYSTEM

The distribution system is drained seasonally and flushed through the hose bibs down by the boat launch. When the system is flushed, the operator should start systematically from the closest connection to the plant and then move further away as the water clears out and chlorine residuals stabilize.

The distribution system has two pressure zones: the upper campground fed by the booster pump from the reservoirs and the gravity fed zone including the lower campground, boat launch, and the store.

FEATURES	Yes	No
Service area and facility map	☐	☒
Minimum pressure requirements met	☒	☐
Service meters (reading frequency _____)	☐	☒
Leak detection program	☐	☒
Water system leakage (%)	N/A	
Adequate valving for flushing and pipe repair	☐	☒
Blow-offs on dead ends	☐	☒
Routine flushing (frequency Seasonally)	☐	☒
Routine valve exercise (frequency Seasonally)	☐	☒

CROSS CONNECTION CONTROL (Non-Community Systems)	Yes	No
Annual testing	☐	☒
High hazards identified	☐	☒
High hazards protected	☐	☒
System has installation standards	☐	☒
*Hose connected to potable water supply and submerged in a non-potable body of water	☐	☒
*Sewage dump station without a properly installed reduced pressure principle backflow assembly (RPBA) on the water supply line	☐	☒

The system had two RPBAs installed at RV dump stations, but it appears that the dump stations have been removed. Cross Connection Control Surveys should be performed periodically to identify new sources of contamination.

The system must shut down very large portions of the park all at once to perform repairs. Improving the valve configuration could keep more of the park in service during an outage.

SECTION 5: FINISHED WATER STORAGE

The finished water storage includes two reservoirs used for contact time to achieve the required inactivation of Giardia, Cryptosporidium and viruses. In addition, the system has a single reservoir used for equalization storage throughout the day.

RESERVOIR	RESERVOIR NAME	DESCRIPTION	YEAR BUILT	TOTAL (EFFECTIVE) VOLUME (GAL)
1	Contact 1	6' diameter, 12' tall insulated tank, 8.5' used.	1992 (est)	1,900
2	Equalization	8' diameter, 9' tall insulated tank	1992 (est)	2,600
3	Contact 2	7' tall, uninsulated plastic tank.	1992 (est)	2,800

Water is pumped from the filter into the tallest reservoir. From there it flows by gravity into the shortest tank (green, to the north) for additional contact time. Water fills the middle tank by gravity which provides equalization storage.

The equalization tank contains floats that are used to call the lift pump from the filter discharge. This is not obvious by visual inspection, and it was necessary to review design reports from 2013 to identify the course of water through the system. The lower campground is served directly from this tank by gravity, while a booster pump draws from the tank to pressurize the upper system.

TOP OF RESERVOIR	Res #1		Res #2		Res #3	
	Yes	No	Yes	No	Yes	No
**Hatch: Locked	☒	☐	☒	☐	☒	☐
*Hatch: Watertight seal or gasket	☒	☐	☒	☐	☒	☐
Hatch: Over-lapping cover	☒	☐	☒	☐	☒	☐
*Screened air vent	☐	☒	☐	☒	☐	☒
*Openings sealed/protected	☒	☐	☒	☐	☒	☐

FEATURES	Res #1		Res #2		Res #3	
	Yes	No	Yes	No	Yes	No
Separate inlet/outlet	☒	☐	☒	☐	☒	☐
Protected drain outlet	☒	☐	☒	☐	☒	☐
*Protected overflow outlet	☒	☐	☒	☐	☐	☒
*Overflow line discharges into a sanitary sewer with an air gap	☒	☐	☒	☐	☐	☒
Operational water level gauge	☐	☒	☐	☒	☐	☒
Bypass piping or isolation possibility	☐	☒	☐	☒	☐	☒
**Protected from unauthorized entry	☒	☐	☒	☐	☒	☐
Low level alarms	☐	☒	☐	☒	☐	☒
Sample tap at outlet	☐	☒	☐	☒	☐	☒

MAINTENANCE	Res #1		Res #2		Res #3	
	Yes	No	Yes	No	Yes	No
Frequency of structural and coating inspection	N/A		N/A		N/A	
Frequency of cleaning	Annual		Annual		Annual	
Frequency of appurtenance inspection	Annual		Annual		Annual	
Frequency of routine site visit	Daily		Daily		Daily	
**Structure in good condition	☒	☐	☒	☐	☒	☐
Clear of excessive vegetation	☒	☐	☒	☐	☒	☐

The reservoirs should be emptied and cleaned at the end of this season. Debris could be seen on the floor of the tank during the inspection. The tank lids are bolted to the reservoirs and cannot be removed. Although secure, this does make inspection difficult and could compromise the rubber gasket seals. In addition, the tanks do not appear to be vented, and relief is likely provided by flow over that gasket. Please install a downward facing vent screened with 24-mesh screen.

SECTION 6: PRESSURE TANKS

Site	Location	# and size of Hydropneumatic Tanks	# and size of Bladder Tanks
1	Treatment Plan	0	1 x 35 gallon

BLADDER	Site: 1	
	Yes	No
Isolation valve	☒	☐
Pressure relief valve	☐	☒
Pressure gauge	☒	☐
In good condition	☐	☒

BUILDINGS/ENCLOSURE	Site: 1	
	Yes	No
**Facility secure	☒	☐
Structure in good condition	☒	☐

The bladder tank did not appear to have pressure relief installed. In addition, the base and casing of the tank was severely rusted, the tank should be replaced as soon as reasonably possible.

SECTION 7: BOOSTER PUMPS AND FACILITIES

There is a single booster pump that provides service to higher elevation camping sites.

Facility	Name	Description	Total Capacity (gpm)
1	Treatment Plan	Single ¾-HP booster pump provides service to upper zone	~16

BOOSTER PUMPS	Facility 1	
	Yes	No
Number of pumps	1	
Frequency of routine site visit	Daily	
Isolation valves	☒	☐
Pressure gauge(s)	☒	☐
Pressure relief valve	☐	☒

BOOSTER PUMPS	Facility 1	
	Yes	No
Pump failure alarm	☐	☒
*Functional pump and pump controls	☒	☐
Protected from flooding	☒	☐
Redundant pumps	☐	☒
Equipment in good condition	☐	☒
Generator available	☐	☒
Generator has automatic startup	☐	☐
Generator fuel source		

BUILDINGS/ENCLOSURE	Facility 1	
	Yes	No
**Facility secure	☒	☐
Structure in good condition	☒	☐

The upper pressure zone is dependent on a single booster pump. The power to the pump is provided from a socket by an electrical cord wired to the control box. A pressure switch calls for service and makes a circuit with this power source. Unfortunately, the wiring has been exposed to water, permitted to corrode, and probably was not well assembled in the first place. The system now causes the breakers to trip frequently, leading to a loss of pressure, followed by a loss of chlorine monitoring and subsequently the plant shuts down. This booster pump should be re-wired for better reliability as soon as possible.

SECTION 8: WATER QUALITY MONITORING AND REPORTING

Source monitoring has been adequate. The only outstanding sample necessary at this time appears to be the annual Nitrate.

Refer to the Water Facilities Inventory (WFI) for your monitoring requirements and status. If you have any questions on source monitoring, please contact Sophia Petro at (360) 236-3046.

CHEMICAL	
Sample Point	Description
1	Raw Water Sample Tap

CHEMICAL	Sample Point 1	
	Yes	No
Monitoring adequate	☒	☐
ODW WQ data reviewed	☒	☐
Sample collection sites correct	☒	☐

CHEMICAL	Sample Point 1
	Yes No
System has prior: ☐ Nitrate results above 5 mg/L ☐ Nitrite results above 0.5 mg/L ☐ Primary MCL ☐ Secondary MCL exceedance(s) ☐ Organic detections ☐ Other _____	

COLIFORM	Yes	No
Monitoring adequate	☒	☐
Monitoring plan adequate	☒	☐
Monitoring plan followed	☒	☐
# of violations since last survey	1	

The system has been submitting raw water fecal samples to a state certified lab, but due to a communication error, those results are not being forwarded to ODW.

SECTION 9: SYSTEM MANAGEMENT AND OPERATIONS

PROJECT/PLANNING	Yes	No
System approved	☐	☒
Current WSP/SWSMP	☒	☐
Year WSP/SWSMP approved	2013	
Emergency response plan	☐	☒

REPORTING	Yes	No	N/A
WFI reviewed and updated with purveyor	☒	☐	---
Consumer confidence report (Community only)	☐	☐	☒
Water use efficiency report (Municipal Water Suppliers)	☐	☐	☒
Cross connection control annual report (> 1000 conn)	☐	☐	☒

OPERATOR CERTIFICATION

This system is required to have a WTPO-1 certified operator. The WTPO-1 operator is responsible for tracking all key system parameters related to water quality and reporting monthly to ODW. These parameters include at a minimum raw and filtered turbidity, pH, temperature, free chlorine residual and associated contact time.

If you have any questions or this information is inaccurate, please contact Operator Certification at (800) 525-2536.

Name of Operator	Certification Number	Certifications	Mandatory Operator
Henry Cross	010224	WTPO-1, WDS	☒

WDS-Water Distribution Specialist; WDM-Water Distribution Manager; WTPO-Water Treatment Plant Operator; BTO-Basic Treatment Operator; CCS-Cross Connection Specialist; BAT-Backflow Assembly Tester

OPERATIONS	Yes	No
Operational records maintained	☒	☐
Complaints followed up	☒	☐
Complaints documented	☐	☒
# of complaints recorded at ODW (since last survey)	0	
Operation and maintenance program	☒	☐
Previous survey deficiencies/findings corrected, if no list below.	☒	☐

CLOSING

Your next survey is due in 3 years.

Regulations establishing a schedule of fees, including fees for sanitary surveys, were adopted April 30, 2012 (WAC 246-290-990). The amount due is $612. An itemized worksheet is enclosed with the invoice.

If you have any questions, please contact me at (360) 236-3036 or by e-mail at jester.purtteman@doh.wa.gov.

Sincerely,

Jester Purtteman
Office of Drinking Water, Regional Engineer

cc: Washington State Department of Fish and Wildlife
Clallam County

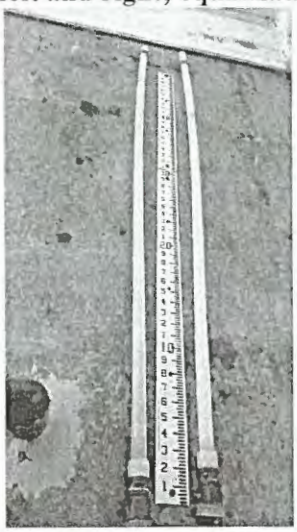
Well Screen (right) and suction piping for raw water intake

Raw Water Lift Pump

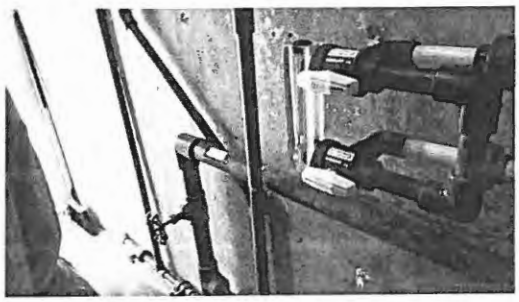
Water Treatment Plant

Contact tanks, left and right; equalization tank, center

Looking into WTP control room



Filter pressure differential manometers



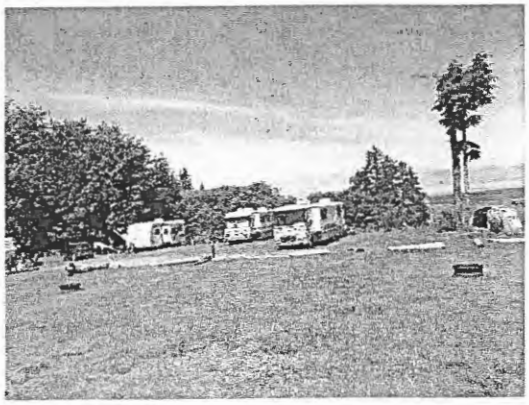
Filter flow meter

Filtered water transfer pump

Solenoid valve and source meter on filtered water transfer line

Chlorine injection point

Upper pressure zone pressure pump



Motorhomes in the upper pressure zone

Small Water System Start-up Shut-down Self-Inspection Checklist

October 2010
DOH 331-312
Updated

This checklist will help you to identify potential problems with your water system that may allow contamination to enter. If any item below is checked "No" it means improvements need to be made. If you are unsure what improvement to make, contact your Office of Drinking Water regional engineer.

Completion of this form will document you've checked the following components of your water system during start-up and shut-down for one year of operation. It is recommended you write in the date you complete each item and keep this record.

	Start-up _____		**Shut-down _____**	
	Check one	**Date**	**Check one**	**Date**
Well Source and Pumphouse				
Is the pumphouse locked and protected from trespassers?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the well protected from tampering?	☐ Yes ☐ No		☐ Yes ☐ No	
Are all chemicals (pesticides, gas, herbicides, paints, solvents, etc.) more than 100 feet away from the well?	☐ Yes ☐ No		☐ Yes ☐ No	
If there are any signs of animal activity, are they at least 100 feet away from the well?	☐ Yes ☐ No		☐ Yes ☐ No	
If you have a back-up generator, is the fuel and generator stored so any fuel leaks will be captured in a secondary (back-up) containment area?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the well cap free of openings that would allow an insect to crawl into the well?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the well casing vent inverted and is the screen intact?	☐ Yes ☐ No		☐ Yes ☐ No	
Are rodents or insects being kept out of the well house and away from the well head? *Look for droppings, chewed papers, or nesting materials.*	☐ Yes ☐ No		☐ Yes ☐ No	

	Start-up _____		Shut-down _____	
	Check one	**Date**	**Check one**	**Date**
Is the sample tap working properly?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Do you have a water meter for the well and is it working?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Meter Readings: Start-up: _____ on _____ (date) Shut-down: _____ on _____ (date)				
Are you recording water use on a routine basis when you are open?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
In the past year, have you verified your water meter is accurately measuring the water pumped by the system? *You can verify this by pumping into a bucket or barrel of known volume and comparing it to the meter readings.*	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Did you measure and record the static water level? Static water level: _____ on _____ (date) *Disinfect the probe prior to measuring the static water level.*	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____

Chlorination

Make sure the chlorinator is pumping chlorine at an adequate dose throughout distribution.
Test the free chlorine residual at least twice on separate days and evaluate results. Make adjustments as needed.

Is the treatment working properly?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Is the chlorine residual test kit working and are the reagents fresh?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Have you replaced all of the chlorinator tubing within the last year?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Have you checked the chemical injection point and cleaned it?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Have you verified the chemical feed pump is working properly?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Did you buy new chlorine solution (bleach) and discard last year's supply?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Start-up: Do you have enough Chlorination Report forms for this year?	☐ Yes ☐ No	_____		
Shut-down: Were all Chlorination Reports submitted to your Office of Drinking Water regional office for the operating season?			☐ Yes ☐ No	_____

	Start-up _____		Shut-down _____	
	Check one	**Date**	**Check one**	**Date**

Other Treatment

Make sure the treatment unit is actually adding or removing the water quality parameter (for example, iron) in question.
You need to measure the parameter at least twice on separate days.
If you have specific questions about how to do this, contact the manufacturer or call your Office of Drinking Water regional engineer.

Pressure Tanks

Can you ensure none of your pressure tanks are waterlogged?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Do the air/water level controls function properly?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Is there a pressure relief valve on each tank?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____

Storage Tanks

Have you cleaned the inside of the tank within the last five years?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Is the tank overflow pipe screened and is the screen intact?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Is the access hatch locked?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Is the tank vent properly screened and is the screen fully intact?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Are birds or bats being kept out of the tank?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Are insects and spiders being kept out of the hatch area, especially on the inside of the lid?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Is the bottom of the tank free from sediment build-up?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Are the storage tank roof and sides structurally intact without holes and cracks?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Are the water level controls functioning properly?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____
Is the coating on the inside or outside of the tank in good condition?	☐ Yes ☐ No	_____	☐ Yes ☐ No	_____

	Start-up _____		Shut-down _____	
	Check one	**Date**	**Check one**	**Date**
Distribution Lines				
When you walk the lines, can you ensure none of them is exposed?	☐ Yes ☐ No		☐ Yes ☐ No	
Have you located each valve and shut down and re-opened each one to ensure they all work?	☐ Yes ☐ No		☐ Yes ☐ No	
Have you checked your system for leaks? *You can read the source meter when the system use should be zero, such at 2 a.m., to get an estimate of leaks.*	☐ Yes ☐ No		☐ Yes ☐ No	
Are you avoiding 'frost-free' hydrants for water service? *The weep hole in frost-free hydrants can allow potential contaminants to enter the system.*	☐ Yes ☐ No		☐ Yes ☐ No	
Are all outdoor hose bibs provided with vacuum breakers?	☐ Yes ☐ No		☐ Yes ☐ No	
Have you had all of your cross-connection control devices tested and did they pass?	☐ Yes ☐ No		☐ Yes ☐ No	
If you have an RV dump station, can you ensure the drinking water line can't reach the sewer pad?	☐ Yes ☐ No		☐ Yes ☐ No	

For more information

Call your Office of Drinking Water regional office:

Eastern Region: Spokane Valley 509-329-2100

Northwest Region: Kent 253-395-6750

Southwest Region: Tumwater 360-236-3030

PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND HEALTHIER WASHINGTON

For people with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY call 711).

EPA Region 8 Seasonal Start-up Checklist

If your public water system is open only part of the year, it is considered a seasonal system. Under the Revised Total Coliform Rule, you are required to complete the following steps and submit this form to our office **prior to serving water to the public** for the season. You will be in violation of the RTCR and subject to enforcement action if you serve water to the public before completing these start-up procedures and submitting this form to our office.

Submit to:
Bre Bockstahler/RTCR Manager
8P-W-DW
1595 Wynkoop Street
Denver, CO 80202
Or fax at: 1-877-876-9101 or email at: R8DWU@epa.gov

PWS Name: _____
PWS ID number: _____
Today's Date: _____
Date water system opens to the public: _____
Estimated closure date for the season: _____

Unless otherwise noted as optional, all actions must be completed. If an action does not apply or you do not have a specified piece of equipment, mark "N/A":

Action	Completed?	Comments
1) Inspect each source- • Wells- Is each well sealed and intact? Are all required gaskets and screens undamaged and properly installed? Are all bolts present and tight? Are there any openings that could allow in animals, insects, stagnant or other water? • Spring(s) - Are there any breaches or openings that could allow in contamination? Has deep rooted vegetation been removed? Is your spring area fenced or protected from stock or wildlife? • Intake(s) - Any repairs needed? Complete any repairs prior to opening. If more time for repairs is needed, be sure to contact our office first.		
2) Does your system have any treatment? Ensure that chemical feeds are functioning properly, you have fresh disinfectant, and conduct UV maintenance (if necessary). Complete any repairs prior to opening. If more time for repairs is needed, be sure to contact our office first.		
3) Inspect any storage or pressure tanks. • Are there any openings or repairs needed? • Are vents and overflows intact and properly fitted with #24 mesh screen? • Are access penetrations gasketed and sealed?		

• Are all valves operational? Complete any repairs prior to opening. If more time for repairs is needed, be sure to contact our office first.		
4) Flush the distribution system *You must flush your system to rid your distribution system of stagnant water. We recommend disinfecting and flushing as it is more effective and will kill any bacteria that may have accumulated. Be sure to use chlorine solution approved for drinking water.* a) *Recommended*: Add disinfectant at proper dosage. Fill the system then turn on faucets to get disinfected water throughout your entire distribution. Shut the water off and let sit 24 hours. Prevent anyone using this water during this time as it would contain high levels of disinfectant. b) Flush the stagnant or disinfected water out of the system. *Be sure to keep chlorinated water away from septic systems and surface water bodies such as lakes, streams and ponds.*		
5) Flush out your tanks (if applicable). Ensure stagnant or disinfected water is removed and all valves are operational.		
6) Inspect your pipes (distribution system). • Any leaks noted? Does the system hold pressure with all taps closed? Complete any repairs prior to opening.		
7) When the above steps are completed, collect a **special** bacteriological sample and send to the lab for analysis. *This can serve as a double check to ensure your system is fully operational and ready for the season. Samples labeled as "**special**" do not count for compliance.*		
8) Did your system have any TC+ sample results prior to closing for the season last year? If all repeats were not taken at that time, then collect the required number prior to opening for the season.		

If you need further instruction on disinfection practices, you can consult Wyoming Association of Rural Water Systems at 307-436-8636 or if in Indian country, consult Barb Burkland (MT) at burkland.barbara@epa.gov or Andrea Griese (ND, SD) at griese.andrea@epa.gov or Mindy Mohr (CO, UT) at mohr.mindy@epa.gov. Any time you have a positive total coliform sample, be sure to refer to: http://www2.epa.gov/region8-waterops/emergencies-and-security-follow-unsafe-total-coliform-rule-positive-sample for the required steps.

Additional Comments:

Certification of Completion:

I hereby certify that each start-up procedure listed above was completed before water was delivered to my customers.

Name (Printed) _____

Signature_____ Date_____

Phone Number_____ Email _____

Tab I
Aquatic Lease Information

WASHINGTON STATE DEPARTMENT OF NATURAL RESOURCES

Guidelines for Licensing a Recreational Mooring Buoy or Boatlift on State-Owned Aquatic Lands

Note: To apply for a mooring buoy or boat lift authorization for **Quartermaster Harbor ONLY**, please use the form available at: www.dnr.wa.gov/Publications/aqr_mooringbuoy_app_qtrmstrhbr.pdf

If you already have or plan to install a mooring buoy or boat lift on state-owned aquatic lands*, you will need authorization from the Washington State Department of Natural Resources (DNR). In addition, you may also need to obtain permits from other agencies, depending on the location of your project.

All the applications are available online at one location under the **Joint Aquatic Resources Permit Application** (JARPA). A complete DNR application must also include **Attachment E** of the JARPA. (Go to http://tinyurl.com/jarpa-wa)

◗ The following guidelines will help you in preparing the main JARPA form:

Under question 6b "Describe the purpose of the project and why you want or need to perform it," include the following:

1. The point of access, parking, and dinghy storage locations.
2. Depth of water at buoy or boatlift location at mean lower low water (MLLW).
3. Length of vessel(s).
4. Vessel(s) registration number.
5. Describe in detail your plan for operating and maintaining the mooring buoy or boatlift and anchoring system. (See pages 2-3 of these guidelines for more information.)

BOATLIFT application only—include the following information:

1. What the boatlift is secured to (ex. recreational dock, bulkhead, buoy, anchor, freestanding, or other).
2. What the boatlift is made of (ex. steel, aluminum, polyethylene, wood, or other).
3. Whether or not the boatlift will remain in place year round. If not, identify the dates in which you will remove it from state-owned aquatic land.

* DNR is steward of 2.6 million acres of **state-owned aquatic lands.** On behalf of the people of Washington, we manage the resources attached to or embedded in aquatic lands (ex. seaweed, shellfish, sand, minerals and oil), as well as the man-made structures in the water and air space above these lands.

Attach an 8-1/2 x 11-inch vicinity map that clearly shows:

1. The proposed or existing GPS position of the buoy or boatlift.
2. The position of the buoy or boatlift in relation to its anchor—if not directly below.
3. The extent of the swing of the vessel using a full circle (buoy only). This circle must be free from all obstacles including buoys, docks, or other hazards (e.g., other vessel swing circles).
4. The nearest upland parcel and distance to the ordinary high water mark (line of vegetation).
5. The distance from the appropriate line of state ownership (e.g., mean high tide, extreme low tide, the line of ordinary high water, or the line of navigability—freshwater).
6. The distance from other mooring anchors, structures and/or any hazards or obstructions in the vicinity.
7. The distance to and location of navigation channels.
8. The tidal correction and the depth to the anchor of the buoy or boatlift and how you determined it.

If you have any questions about the information requested in the JARPA, contact the DNR's Mooring Buoy Program in Olympia, Washington, at buoy@dnr.wa.gov or 360-902-1074.

◗ DNR requirements: Plan of operations

You must meet all the requirements outlined in the appropriate plan of operations below before DNR will authorize your new or existing mooring buoy or boatlift.

MOORING BUOY: Plan of Operations and Maintenance

1. Mooring buoys must be anchored where the water will be deeper than 7 feet at Extreme Low Tide or 11.5 feet at Mean Lower Low Water.
2. The buoy must meet or exceed all United States Coast Guard regulations.
3. For visibility and identification:
   a. The buoy must float at least 18 inches above the surface of the water.
   b. The buoy must be reflective white with a blue stripe.
   c. Mark the buoy with the DNR license numbers so that they are visible from 20 feet.
4. For anchor design:
   a. The anchor must be sufficient to hold the vessel in all weather.
   b. The licensee is responsible to ensure the anchor does not move.
   c. If the anchor moves offsite, DNR may terminate this license and require removal of the buoy and anchor.
   d. Use an anchor system that prevents vessel and line dragging and minimizes impacts to the bottom. DNR prefers embedded anchors unless not feasible due to substrate or other site-specific conditions.
   e. DNR does not allow a midline weight used as part of the anchoring system.
5. For buoy design:
   a. All buoys shall have a mid-line float system installed.
   b. The mid-line float must hold the tether line off the bottom at all tides.
   c. Locate the mid-line float at a distance from the anchor that is equal to 1/3 of the water depthat mean high water (MHW).

BOAT LIFT: Plan of Operations and Maintenance

1. Boatlifts used for boat moorage must be anchored where the water will be deeper than 7 feet at the Extreme Low Tide or 11.5 feet at Mean Lower Low Water.
2. The licensee/owner shall inspect the boatlift and anchor annually and maintain them in good working condition. The lifts may not be used:
   - To house vessels during refueling.
   - For vessel maintenance of any kind including washing.
   - To store fuels or oils that may enter onto state-owned aquatic lands.

ADDITIONAL INFORMATION

You may apply for a **no-fee mooring buoy registration** under the following conditions:

- You own the property that abuts State-owned Aquatic Lands and that property is developed with a residence, AND
- Your boat is **NOT** more than 60-feet long, AND
- You use your boat only for recreational purposes.
- Mail your no-fee mooring buoy registration application to DNR Aquatic Resources districts

  For a map of DNR Aquatic Resources districts: https://www.dnr.wa.gov/programs-and-services/aquatics/aquatic-districts-and-land-managers-map

For a no-fee mooring buoy registration, you will not be required to pay the $25 non-refundable application-processing fee. Please see RCW 79.105.430 for additional details on no-fee mooring buoy registration.

You must apply for a **license** (with an annual fee based on vessel length) if:

- You do not own the abutting residential property, OR
- Your boat is more than 60-feet long, OR
- You plan to install a boatlift.

Completing the JARPA and Attachment E

To submit your **license** application to DNR, send the JARPA, Attachment E, vicinity maps, and a $25 non-refundable application-processing fee to the below address. (Agencies, political subdivisions, or municipal corporations of this state or the United States are exempt from the application fee per WAC 332-10-190).

Department of Natural Resources
Aquatic Resources Division
1111 Washington St. SE
MS 47027
Olympia, WA 98504-7027

Aquatic Resources District Offices

DNR manages the 2.6 million acres of State Aquatic Lands statewide—lands under the marine and fresh waters, and beaches. These mostly-submerged lands offer aquatic habitat, navigation, commerce, and public use and access. DNR's aquatic districts provide on-the-ground management.

Orca Straits District Aquatic Resources
919 N. Township St.
Sedro Woolley, WA 98284
(360) 856-3500
Fax (360) 856-2150

Shoreline District Aquatic Resources
950 Farman Ave.
Enumclaw, WA 98022
(360) 825-1631
Fax (360) 825-1672

Rivers District Aquatic Resources
601 Bond Rd.
P.O. Box 280
Castle Rock, WA 98611
(360) 577-2025
Fax (360) 274-4196

Mooring buoy information and application are online at www.dnr.wa.gov — Type 'mooring buoy' in the upper right search tool.

Need Help With Your Permits?
For assistance preparing permits, contact the **Office of Regulatory Assistance**. They provide statewide environmental permit information, at **(360) 407-7037** or **1-800-917-0043**

WASHINGTON STATE DEPARTMENT OF
Natural Resources

UPDATED 10/14

Recreational Mooring Buoys

For Residential Owners Next to State-Owned Aquatic Lands

WASHINGTON STATE DEPARTMENT OF
Natural Resources

Shoreline Residents May Moor a Boat on State Aquatic Lands

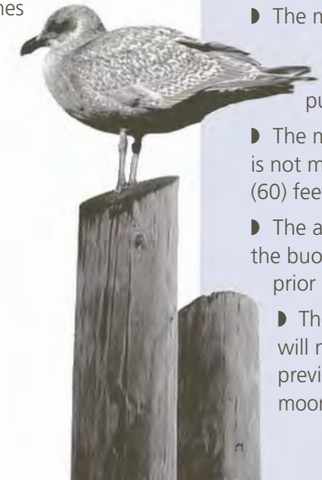
Laws Change for Recreational Mooring Buoys

The 2001 and 2002 Legislatures passed laws about recreational mooring buoys. Individuals who own residential property abutting state-owned aquatic lands may install a mooring buoy on those public lands for recreational purposes without charge.

The law prohibits commercial and transient uses, and living on boats moored to recreational buoys on state lands. It limits boats to sixty feet or less in length, and allows for a second buoy to help secure moorage to the first buoy.

It directs disputes over the assertion of rights to superior court, and it defines the circumstances around which Washington's Department of Natural Resources (DNR) may require a buoy to be relocated or removed:

- To protect access of other landowners;
- If it poses a hazard to or obstructs navigation or fishing;
- If it contributes to degradation of aquatic habitat;
- If it contributes to decertification of shellfish beds.



Qualifying for Free Use of State Lands for Your New Mooring Buoy

Residential owners of "uplands" next to state aquatic lands might qualify for free use of the state lands to install a recreational buoy.

A mooring buoy qualifies for free use if the conditions meet all of these criteria:

- The applicant owns residential property next to state-owned shorelands, tidelands, or related beds of navigable waters (other than harbor areas);
- The moored boat is used for private recreational purposes;
- The moored boat is not more than sixty (60) feet in length;
- The area being used for the buoy is not subject to prior rights;
- The mooring buoy will not obstruct use of previously authorized mooring buoys;
- The mooring buoy is located on state aquatic lands, but as near to the shore of residence as practical; and
- All applicable local, state, and federal rules and regulations have been met.

If your buoy meets these criteria, fill out the mooring buoy/boatlift application at www.dnr.wa.gov. Mail it to DNR's Aquatic District Office in your area, listed here.

Boatlifts on state aquatic lands require the same application. Boatlifts have a yearly fee.

ABOVE PHOTO: LEIGH ESPY / DNR

Although residential landowners whose property abuts state aquatic lands may use a recreational mooring buoy for free, they are still responsible for meeting requirements for the installation of the buoy, including:

- **State Registration with DNR**
  Complete an application.
- **City Restrictions**
  If you live within city limits, allowable uses vary. Contact your city's planning office for requirements.

Contact the following agencies to determine if a permit or authorization is required:

- **WA Department of Fish and Wildlife Hydraulic Project Approval**
  (360) 902-2534
- **WA Department of Ecology**
  (360) 407-6400
- **U.S. Army Corps of Engineers (Permit)**
  (206) 764-3495
- **Shoreline Master Program (Permit or Exemption)**
  Requirements differ by county, addressed through your local county planning office.

PLEASE NOTE

Private recreational mooring buoys are not authorized for residential (living on the boat) or commercial purposes.

Buoy-moored boat must not be more than 60 feet in length.

FOR RESIDENTIAL PROPERTY OWNERS

How to Moor Your Boat On State-Owned Aquatic Lands

CHOOSE A MOORING SYSTEM DESIGN

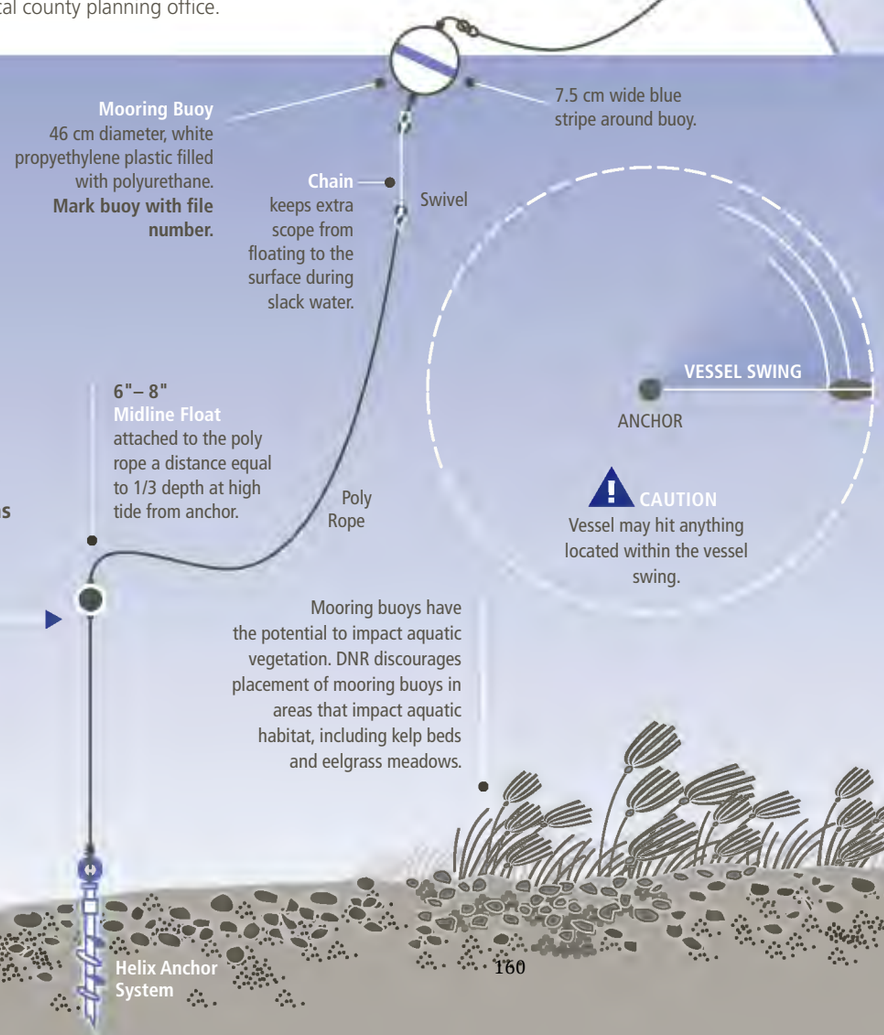
Some mooring system designs have the potential to damage underwater lands and marine vegetation around the buoy. DNR's Land Managers can help you select a system that best suites your area. State Department of Fish and Wildlife has found two designs to be less destructive to ecosystems, fish and wildlife:

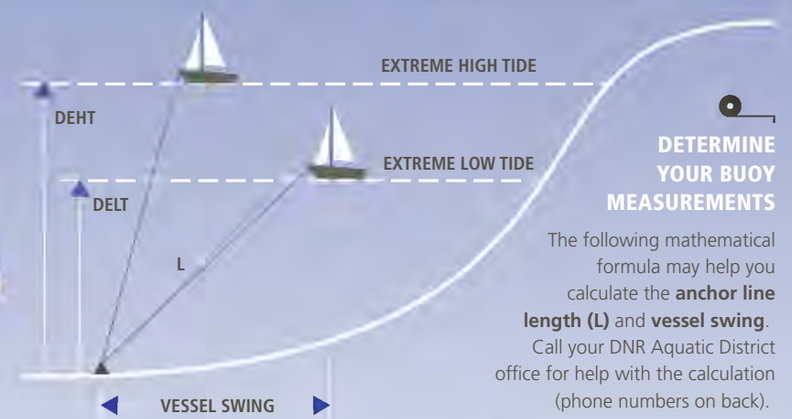
All-Rope System

High-strength nylon rope joins buoy to anchor. The rope's buoyancy keeps it from dragging along the bottom and killing marine vegetation. Regular maintenance is required to keep barnacles and mussels from colonizing on the rope and weighing it down to scour the area.

Mid-Line Float System (Preferred)

A mid-line float system (as shown here) keeps the anchor line from dragging on the bottom, which can kill marine vegetation.





DETERMINE YOUR BUOY MEASUREMENTS

The following mathematical formula may help you calculate the **anchor line length (L)** and **vessel swing**. Call your DNR Aquatic District office for help with the calculation (phone numbers on back).

DEHT
Water Depth at Extreme High Tide.

DELT
Water Depth at Extreme Low Tide.

L (Length)
Anchor line Length.

SCOPE
Ratio of anchor line length to water depth. Washington State Parks recommends between 4 and 7 feet of anchor line for every foot of water depth.

Anchor line Length (L) = Scope x DEHT

$$\text{Vessel Swing} = \sqrt{(L^2) - (DELT)^2} + \text{Mooring line} + \text{Vessel length}$$

GRAPHIC DESIGN AND ILLUSTRATION BY LUIS PRADO / DNR

WASHINGTON STATE DEPARTMENT OF
Natural Resources
Peter Goldmark - Commissioner of Public Lands

Application for Use of State-owned Aquatic Lands

Applicant Name:	**Washington Department of Fish and Wildlife**
County:	**Clallam**
Water Body:	**Strait of Juan de Fuca, Snow Creek**
Type of Authorization:	**Lease**
Authorization Number:	**20-084510**
Term:	15 years
Description:	**DNR is considering an application to lease state-owned aquatic lands for a public boat launch, gangway, and floating dock facilities for recreational day use moorage at snow creek resort. The term being considered is 15 years.**

REGION FILE

OLYMPIA FILE

FIELD FILE

STATE OF WASHINGTON
DEPARTMENT OF NATURAL RESOURCES
PETER GOLDMARK, **Commissioner of Public Lands**

APPLICATION FOR AUTHORIZATION TO USE STATE-OWNED AQUATIC LANDS

I. SUBMISSION OF APPLICATION

NO WORK CAN BE STARTED ON THE PROJECT AREA UNTIL A USE AUTHORIZATION HAS BEEN GRANTED BY THE DEPARTMENT OF NATURAL RESOURCES

Enclose a $25.00 non-refundable application processing fee with the application **(this fee is not required for local, state, and other government agencies)**. This application form will be reviewed by the Department of Natural Resources upon receipt at the address given below. Applicants will be notified in writing if the application will be accepted for further review. However, this application may be rejected at any time before signed execution of a use authorization.
APPLICATION MUST BE FILLED OUT IN BLUE OR BLACK PEN

Please send the completed application form to your region land manager at:

Department of Natural Resources
Pacific Cascade Region
P.O. Box 280
601 Bond Rd
Castle Rock, WA 98611-0280

II. APPLICANT INFORMATION

Date of Application: 3/23/09

Authorization to be Issued To (how name is to appear in the lease document: Washington Department of Fish and Wildlife

Address: Real Estate Services - 600 Capitol Way North

City: Olympia State: WA Zip Code: 98501
Telephone Number: (360) 902-8150 FAX Number: (360) 902-8140
Applicant's Representative: Jennifer Quan
Relationship to Applicant: Lands Division Manager
Address: Same as Above
City: State: Zip Code:
Telephone Number: ( ) FAX Number:
If Property will be used for business purposes, Applicants' Washington Department of Revenue Tax *Registration Number (Unified Business Identifier) is **Required**: 91-1632572

FOR OFFICIAL USE ONLY
Land Manager: Type: (20, 21, 22, 23, 31, 51)
Land Manager: ☐ New Application ☑ Renewal Application
Land Manager: Initials JS Aquatic Program Manager Initials
Support: Application Fee Received [signature] Date : Gov. Agency, no fee
Land Records: New Application Number
Land Records: Trust County AQR Plate No.
JEFF SCHEECK 05 01 CA30

Which of the following applies to Applicant (**Check One** and **Attach written authority to sign** - bylaws, power of attorney, etc):

Corporation_____ (State of Registration): _____ Government Agency X_____
General Partnership _____ Limited Partnership _____ (State of Registration): _____
Sole Proprietorship_____ Marital Community _____ (Spouse): _____
Other _____ (Please Explain):

Has the site use been authorized before or is it currently under lease: **Yes**(#) 20-009952 20-78834 **No**_____ **Don't Know**

III. LOCATION

The Body of Water on which the state property is located: Neah Bay
County in which the state property is located: Clallam
Government Lot _____, Section 17, Township 33N, Range 14W E/W

A LEGAL PROPERTY SURVEY INCLUDING THE LEGAL DESCRIPTION AND OTHER INFORMATION ABOUT THE PROPERTY IS REQUIRED TO OBTAIN A USE AUTHORIZATION. THE SURVEY REQUIREMENTS ARE DESCRIBED IN SECTION VII, PROPERTY SURVEY OF THIS FORM. THE SURVEY PLAT WILL BE ATTACHED TO THE LEASE AS EXHIBIT A. **(DO NOT HAVE THIS SURVEY CONDUCTED UNTIL YOU HAVE BEEN NOTIFIED IN WRITING THAT THE APPLICATION HAS BEEN ACCEPTED FOR PROCESSING.)**

Physical description of Project Area (For example, Marsh, Tideflat adjacent to the Chehalis River, etc.): Neah Bay

Name of Owner(s) of Uplands, Shorelands, and/or Tidelands shoreward and adjacent to the Property:

Name: Washington Department of Fish and Wildlife
Address: 600 Capitol Way North
City: Olympia State: WA Zip Code: 98501 Phone Number: (360) 902-8150

EXCEPT FOR PROPERTY LOCATED WITHIN ESTABLISHED HARBOR AREAS, PROOF OF OWNERSHIP, OR AUTHORIZATION TO USE THE ADJACENT TIDELAND, SHORELAND, OR UPLAND PROPERTY MAY BE REQUIRED. IF THE APPLICANT IS THE OWNER OF THE ADJACENT LAND, ATTACH A COPY OF THE DEED OR CONTRACT OF SALE.

County Parcel No(s). for adjacent properties, upland, and/or adjacent tideland properties:

IV. USE OF PROPERTY

1. Describe, in detail, the proposed use of the Property. Public Recreation
2. Is or will the Property be subleased to another party? **Yes** **No** (If yes, submit a copy of the sublease agreement.)
3. What are the current and past uses of the site? Public Recreation
4. Do you have any knowledge of contamination of the site by toxic or hazardous substances, or of past uses or practices that might have lead to contamination by such substances? If so, please explain: No
5. Do you know if any fill material has been placed on the property in question? If yes, please explain: No

PHYSICAL IMPROVEMENTS ARE STRUCTURES PLACED ON THE LAND THAT CANNOT BE REMOVED WITHOUT DAMAGE TO THE LAND. EXAMPLES OF SUCH STRUCTURES INCLUDE PILINGS, DOLPHINS, PIERS, WHARVES, PILING-SUPPORTED BUILDINGS, STRUCTURES BUILT ON FILL OR CONCRETE FOUNDATIONS, BURIED PIPELINES AND CABLES, AND SUPPORT STRUCTURES FOR BRIDGES.

V. IMPROVEMENTS

1. What physical improvements currently exist on the site? (Photos may be required.) Pier and rail boat launch (Upland facilities are not on DNR land – upland facilities include store, restrooms, cabins.

2. If there are physical improvements currently on the site, who owns them? Washington Department of Fish and Wildlife

3. If there are physical improvements currently on the site, describe their condition: Fair

4. Which, if any, of the existing physical improvements will be removed, remodeled, or reconstructed? None

5. Describe any physical improvements that the applicant is proposing to construct on the site: None

6. Has any fill material been placed on the site? If Yes, please describe: None

VI. LOCAL, STATE, AND FEDERAL REGULATORY PERMITS

COPIES OF ALL GOVERNMENT REGULATORY PERMITS ARE REQUIRED BEFORE ISSUANCE OF A DNR USE AUTHORIZATION. YOUR PROJECT MAY REQUIRE SOME OR ALL OF THESE PERMITS.

Please include the following permit applications, permits, or waivers with the application:

JARPA (Joint Aquatic Resource Permit Application)

This one form is used to apply for all of the following individual permits:

1. Section 10 Permit (Required by the US Army Corps of Engineers for any work in or affecting navigable waters, e.g., floats, docks, piers, dredging, pilings, bridges, overhead power lines.)

2. Shoreline Substantial Development, Conditional Use, Variance Permit or Exemption (Issued by Local Government, and is required for work or activity in the 100 year floodplain, or within 200 feet of the Ordinary High Water mark of certain waters; and which included any one of the following: dumping, drilling, dredging, filling, placement or alteration of structures or any activity which substantially interferes with normal public use of the waters.)

3. Hydraulic Project Approval (Required by the Department of Fish and Wildlife if the project includes work that will use, divert, obstruct, or change the natural flow or bed of any fresh or salt water of the state.)

4. Section 404 Permit (Required by the US Army Corps of Engineers if your project will discharge or excavate any dredged or fill material waterward of the Ordinary High Water mark or the Mean Higher High Tide Line in tidal areas.)

5. Section 401 Water Quality Certification (Required by the Department of Ecology if a Section 404 permit is required.)

NPDES (National Pollutant Discharge Elimination System Permit

Required by the Department of Ecology under delegated authority from the Federal Environmental Protection Agency for

projects that include the discharge of fluid on or into surface water.

SEPA (State Environmental Policy Act) Checklist and Environmental Assessments

When you submit a permit application to any agency, if the project is not exempt, the lead agency will ask you to fill out an environmental checklist. Based on checklist answers and the reviewers knowledge of the project site, agency personnel will determine the types of impacts the project may have on the environment. The agency assessments may be the following forms: Determination of Nonsignificance, Determination of Significance, scoping documents, draft or final Environmental Impact Statements (EIS) or others prepared for the purpose of compliance.

Describe any habitat mitigation required by any of the permitting agencies identified above and identify where such mitigation is proposed to occur: _____

_____

_____

VII. PROPERTY SURVEY

Records of Survey are required for easements and leases granted by the department for:

- County roads
- Highways
- Easements across high value lands
- Easements across transition lands
- Utilities
- Upland leases
- Communication sites
- Drainage or irrigation easements
- Railroads
- Aquatic land uses: exemptions are provided for recreational docks and mooring buoys per RCW 79.105.430 and for those permits issued as a Right of Entry
- Other grants as determined by the department based upon site specific considerations

The applicant is responsible for:

- All costs and work associated with creating, submitting, revising and recording the Record of Survey
- Submitting a preliminary Record of Survey for review and approval by the department prior to approval of the agreement.
- Recording the final Record of Survey with the county auditor's office.
- Submitting a digital copy in AutoCAD.DWG or DXF (drawing exchange format) of the final survey.
- Submitting two full size copies and one 8 ½ X 11" copy and of the recorded survey including the auditor's recording information to the department.

A Record of Survey must:

1. **Be produced by a licensed surveyor.**
2. **Meet the requirements of Title 58 RCW and Chapter 332-130 WAC.**
3. Include the name of the applicant, the purpose of the easement or lease and the DNR easementor lease number.
4. Clearly show easement or lease boundaries with distances and directions of all boundary lines.
5. Show the easement or lease area to an accuracy of (±□) 0.5% of the total area or (±□) 10 square feet, whichever is greater.
6. (**Not required for aquatic lands lease across the bed of Puget Sound or the Pacific Ocean**) Indicate the acreage encompassed by the lease or easement within each quarter-quarter section or government lot.
7. Show distances and directions from two or more controlling corners of arecorded subdivision, recorded survey or government

survey (GLO) corners.

8. Be related by meridian and coordinate to the Washington Coordinate System NAD'83(1991) by closed ties to NGS Control monuments, or the extension thereof. The designation of the control stations used shall appear on the plat.

9. Include a narrative legal description describing the servient estate (grantor's parcel) on the Record of Survey.

10. Show a detailed plan of improvements to be constructed or already existing on the easement or lease area. All improvements must be shown in sufficient detail to determine what they are used for and to ensure they are entirely within the easement area.

11. Show the location of any proposed utility.

12. **(linear lease or easement)** Show the lineal footage along the centerline.

13. **(linear lease or easement)** Show the complete alignment information and width including any necessary curve data.

14. **(Easements or leases crossing a section line or state ownership boundary, not required for aquatic lands lease across the bed of Puget Sound or the Pacific Ocean)** Provide ties to the centerline of an easement along the section or subdivision line from the nearest appropriate Public Land Survey System (PLSS) section corner, quarter section or subdivision corner, where the easement enters and leaves the section or state ownership.

15. **(Easements or leases falling entirely within one section and not crossing a section line or state ownership boundary)** Provide ties from both end points of the linear easement to PLSS corners or other subdivison corners shall be provided.

16. **(A lease which encroaches on a previously leased site)** Show the boundary for the senior lease in the vicinity of the proposed lease shall also be shown, together with ties between the two leases sufficient to determine the full extent of the encroachments.

Additional Requirements for Communication Site Leases

17. Show ties to the corners of previously monumented communication sites adjacent to, or in the immediate vicinity of the proposed communication site.

18. Show access to the site.

19. Mark the corners of the communication site, as described and granted, with substantial permanent magnetically locatable monuments. The monuments shall be in place and obviously marked on the ground after the construction of installations and improvements.

20. Show the center of any communication site tower by Washington Plane Coordinates, NAD83 (1991), or latitude and longitude. NAD83 datum must be used to determine global location coordinates and must be in **decimal degrees**. Coordinates must have at least **five** decimal places to the right of the decimal point and include a negative longitude.

21. On all communication sites where towers or beam paths are shown, an elevation is required at the base of the tower.

22. Show the tower height, and the height of the antenna or microwave dish and any beam path used shall have the diameter and tilt thereof shown.

23. The elevation shall be derived from an established benchmark in the vicinity of the site, or an elevation designated by the Department of Natural Resources.

Additional Requirements for Aquatic Land Uses

24. The lease of aquatic lands is often subject to preference rights. Applicants and surveyors should carefully determine the direction, and show details of the proration of coves and irregular shoreline.

25. **(lease sites which contain existing or proposed structures and improvements that are classified as a non water-dependent or a water oriented use as described within RCW 79.105.060 and WAC 332-30-106)** Provide the square footage of each

structure and improvement.

Additional Requirements for Aquatic Land Uses (cont.):

26. Where applicable, the survey of aquatic lands must show the location of the following lines for:

    a. Tidal areas –Government meander line, the original and current locations of line of mean high tide, line of mean low tide, and line of extreme low tide. The survey must include the name of tidal bench mark(s) used or describe the alternate method employed for determining a Tidal Datum. **Lease areas which contain tidelands and bedlands** at a minimum must show the location of the line of extreme low tide crossing the lease area. **Lease areas containing bedlands exclusively** may be required to show the relationship to the line of extreme low tide and the-18 foot contour line only.

    b. Lakes –Government meander line, line of ordinary high water (original ordinary high water if the lake has experienced artificial raising or lowering of the water level), and line of ordinary low water (include source of data) and line of navigability if established.

    c. Rivers - Line of ordinary high water and line of ordinary low water (include source of data) and line of navigability if established.

    d. Lots and blocks of platted tide lands or shore lands, inner and outer harbor lines, waterway lines, street boundaries, any local construction limit lines, any dredge or fill areas, and easements of record within the lease site.

    e. All lines must be shown in sufficient detail to compute and show the area of each area of State-owned bedlands, tidelands, shore lands, harbor area, or waterways included within the proposed lease site.

Include any other data necessary for the complete understanding of the information shown on the survey. If, in the opinion of the department, such information is lacking, the survey may be rejected.

Record of Survey Revisions:

27. Any differences between the as-built road and the regulation plat must be reflected in a revised Record of Survey and recorded with the county by the applicant.

28. When any portion of the completed improvements are located outside of the granted lease site, the as-built locations must be reflected in a revised Record of Survey and legal description. In this instance, a new application for an amended lease site may be required if the as-built location creates adverse impacts. In the case of linear leases across the bed lands of the sound or the ocean, an as-built Record of Survey and a revised legal description of the linear lease must be provided.

Survey Requirements updated July 2002.

All answers and statements are true and correct to the best of my knowledge.

Applicant Jennifer Maze
(Please Print)

Signed Jennifer Maze
(Applicant or Authorized Signature)

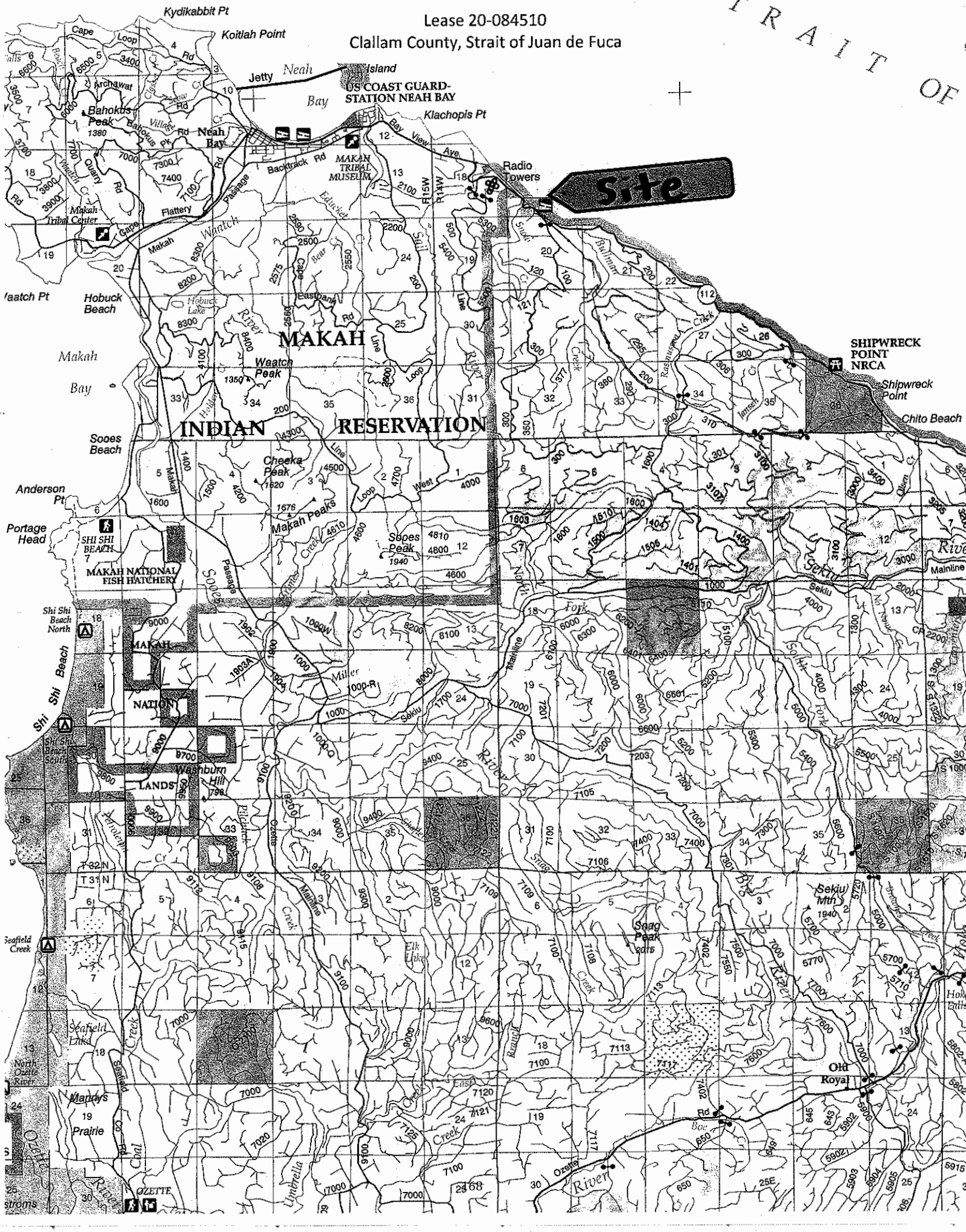
Title Property Management Coordinator

Company Washington Department of Fish and Wildlife

Date 3/23/09

Vicinity Map

Lease 20-084510
Clallam County, Strait of Juan de Fuca



Tab J
Permitting Information

RELATIVE SEA LEVEL PROJECTIONS FOR THE COASTAL AREA NEAR: 48.4N, 124.6W

This table was generated on 07/18/18 for the Washington Coastal Resilience Project
For more information on the Washington Coastal Resilience Project and these projections go to www.coastalnetwork.com/wcrp-documents.html

Vertical land movement estimate and uncertainty (1 standard deviation) for this location: 1.1 ± 0.3 feet/century (negative values represent subsidence)

In the event of a subduction zone earthquake some parts of the Washington coast may be subject to land level change
Based on multiple seismic deformation models, in the event of a subduction zone earthquake this area may be subject to land level change of:

-3.3 to -8.5 ft

where negative values represent land level fall, or subsidence. Coastal subsidence during a subduction zone earthquake would have the affect of RAISING local relative sea level
Sea level rise planning efforts may benefit from taking this into account

APPROVED WORK WINDOWS FOR FISH PROTECTION FOR

ALL MARINE/ESTUARINE AREAS

***excluding* THE MOUTH OF THE COLUMBIA RIVER (BAKER BAY)**

BY TIDAL REFERENCE AREA

14 August 2012

(1) The general work window is given by Tidal Reference Area. Figure 2 is a map of the tidal reference areas.

(2) For marine/estuarine areas in the mouth of the Columbia River (Baker Bay) refer to Columbia River watercourse approved work windows in Table 2.

(3) The work windows are given by tidal reference area and species.

a. Bull trout: For Coastal/Puget Sound bull trout, refer to bull trout work window.
b. Salmon: For Puget Sound chinook salmon, Hood Canal chum salmon, or Ozette Lake chinook salmon, refer to the "salmon" restriction for the appropriate Tidal Reference Area.
c. Forage species: If forage fish are present in the project area, then the work window is for that species applies.

(4) It is likely that several work windows may apply for a specific project. The work windows must be combined. The approved work window will be the common days between all approved work windows. For example, if the project is in Hammersley Inlet in Tidal Reference Area 1 and Pacific Sand Lance are present, the work windows would be:

Salmon Work Window	July 2 – March 2
Bull Trout Work Window	July 16 – February 15
Pacific Sand Lance	March 2 – October 14

Taking the days that the approved work windows have in common, the time the project could be constructed is July 16 – October 14.

(5) For forage fish work windows that state "closed year round". Work may occur if the restriction is released for a short period of time (typically two weeks) after the Washington State Department of Fish and Wildife (WDFW) Habitat Biologist has confirmed that not forage fish are spawning on the beach.

(6) To determine whether your project lies within areas for work windows for "forage species," contact the Corps.

(7) Work within two hundred feet landward of the State's ordinary high water line in waters of the U.S. listed as "submit application" or "closed" is not authorized by the Washington State

Department of Fish and Wildlife (WDFW). Site review and a specific written authorization (and State HPA) are required for these waters.

(8) These "approved work windows" are based on best available information as of the date of the Services' concurrence with this informal consultation. They may be amended or deleted in the future as new information is obtained. The Corps will use the most current version of these windows when the authorizing projects for which conformance with the ESA is in part based on the windows in this programmatic consultation.

TABLE D-3: APPROVED WORK WINDOWS FOR ALL MARINE/ESTUARINE AREAS
***Excluding* THE MOUTH OF THE COLUMBIA RIVER (BAKER BAY)**

TIDAL REFERENCE AREA	SALMON WORK WINDOW	BULL TROUT WORK WINDOW	FORAGE SPECIES WORK WINDOWS	
Tidal Reference Area 1 (Shelton): All saltwater areas in Oakland Bay and Hammersley inlet westerly of a line projected from Hungerford Point to Arcadia	July 2 – March 2	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	------ April 1 – January 14 March 2 – October 14
Tidal Reference Area 2 (Olympia): All saltwater areas between a line projected from Hungerford Point to Arcadia and a line projected from Johnson Point to Devil's Head. This includes Totten, Eld, Budd, Case and Henderson Inlets, and Pickering Passage.	July 2 – March 2	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	April 1 – June 30 April 1 – January 14 March 2 – October 14
Tidal Reference Area 3 (South Puget Sound): All saltwater areas easterly and northerly of a line projected from Johnson Point to Devil's Head and southerly of the Tacoma Narrows Bridge.	July 2 – March 2	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	May 1 – September 30 April 1 – January 14 March 2 – October 14
Tidal Reference Area 4 (Tacoma): All saltwater areas northerly of the Tacoma Narrows Bridge and southerly of a line projected true west and true east across Puget Sound from the northern tip of Vashon Island.	July 2 – March 2 Commencement Bay only: Aug. 16 – March 15	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	April 15 – September 30 April 15 – January 14 March 2 – October 14
Tidal Reference Area 5 (Seattle): All saltwater areas northerly of a line projected true west and true east across Puget Sound from the northern tip of Vashon Island and southerly of a line projected true east from Point Jefferson at 47° 45' N. latitude across Puget Sound. This area includes Port Orchard, Port Madison, and Dyes and Sinclair Inlets.	July 2 – March 2	July 16 – February 15* *Duwamish Waterway - Oct 1- Feb 15	Surf Smelt - Eagle Harbor - Sinclair Inlet Pacific Herring Pacific Sand Lance	April 1 – August 31 Year round Year round May 1 – January 14 March 2 – October 14

TABLE D-3: APPROVED WORK WINDOWS FOR ALL MARINE/ESTUARINE AREAS
***Excluding* THE MOUTH OF THE COLUMBIA RIVER (BAKER BAY)**

TIDAL REFERENCE AREA	SALMON WORK WINDOW	BULL TROUT WORK WINDOW	FORAGE SPECIES WORK WINDOWS

TABLE D-3: APPROVED WORK WINDOWS FOR ALL MARINE/ESTUARINE AREAS
***Excluding* THE MOUTH OF THE COLUMBIA RIVER (BAKER BAY)**

TIDAL REFERENCE AREA	SALMON WORK WINDOW	BULL TROUT WORK WINDOW	FORAGE SPECIES WORK WINDOWS	
Tidal Reference Area 6 (Edmonds): All saltwater areas northerly of a line projected true east from Point Jefferson at 47° 45' N. latitude across Puget Sound and southerly of a line projected true east from Possession Point to Chenault Beach and from Foulweather Bluff to Double Bluff.	July 2 – March 2	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	------ ------ March 2 – October 14
Tidal Reference Area 7 (Everett): All saltwater areas northerly of a line projected true east from Possession Point to Chenault Beach, easterly of a line projected 5° true from East Point to Lowell Point, and southerly of the Stanwood to Camano Island Highway. This area includes Port Gardner, Port Susan, and parts of Possession Sound and Saratoga Passage.	July 2 – March 2	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	Year Round April 15 – January 31 March 2 – October 14
Tidal Reference Area 8 (Yokeko Point): All saltwater area westerly and northerly of a line projected 5° true from East Point to Lowell Point, north of the Stanwood to Camano Island Highway, and easterly and southerly of Deception Pass Bridge and the Swinomish Channel Bridge on State Highway 536. This area includes Holmes Harbor, Saratoga Passage, Skagit Bay, Similk Bay, and most of the Swinomish Channel.	July 2 – March 2	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	Year Round April 15 – January 31 March 2 – October 14
Tidal Reference Area 9 (Blaine): All saltwater area in Skagit County and Whatcom County that lies northerly of the Swinomish Channel Bridge on State Highway 536 and westerly and northerly of Deception Pass Bridge.	July 2 – March 2	July 16 – February 15	Surf Smelt Pacific Herring - South of a line running due west from Governor's point - North of a line running due west from Governor's	Year Round April 15 – January 31 June 15 – January 31

TABLE D-3: APPROVED WORK WINDOWS FOR ALL MARINE/ESTUARINE AREAS
***Excluding* THE MOUTH OF THE COLUMBIA RIVER (BAKER BAY)**

TIDAL REFERENCE AREA	SALMON WORK WINDOW	BULL TROUT WORK WINDOW	FORAGE SPECIES WORK WINDOWS	
			point	
			Pacific Sand Lance	March 2 – October 14
Tidal Reference Area 10 (Port Townsend): All saltwater area of Puget Sound north of a line projected from Tala Point to Foulweather Bluff, and except all waters defined in Tidal Reference Areas 1 through 9. Area 10 includes waters of the San Juan Islands, Admiralty Inlet, the Strait of Juan de Fuca, and associated bays and inlets.	July 16 – March 1	July 16 – February 15	Surf Smelt - Kilisut Harbor - Dungeness Bay - Twin Rivers - Deep Creek - San Juan Islands Pacific Herring Pacific Sand Lance	 November 1 – September 14 January 15 – October 14 September 1 – April 30 September 1 – April 30 Year round May 1 – January 14 March 2 – October 14
Tidal Reference Area 11 (Union): All saltwater area of Hood Canal southerly and easterly of a line projected from Lilliwaup Bay to Dewatto Bay.	July 16 – March 1	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	March 2 – September 14 April 1 – January 14 March 2 – October 14
Tidal Reference Area 12 (Seabeck): All saltwater areas of Hood Canal northerly of a line projected from Lilliwaup Bay to Dewatto Bay and southerly of a line projected true east from Hazel Point. This area includes Dabob Bay and Quilcene Bay.	July 16 – March 1	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	------ April 15 – February 14 March 2 – October 14
Tidal Reference Area 13 (Bangor): All saltwater area of Hood Canal northerly of a line projected true east from Hazel Point and south of a line projected from Tala Point to Foulweather Bluff. This area includes Port Gamble	July 16 – March 1	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	February 1 – October 14 April 15 – January 14 March 2 – October 14

TABLE D-3: APPROVED WORK WINDOWS FOR ALL MARINE/ESTUARINE AREAS
***Excluding* THE MOUTH OF THE COLUMBIA RIVER (BAKER BAY)**

TIDAL REFERENCE AREA	SALMON WORK WINDOW	BULL TROUT WORK WINDOW	FORAGE SPECIES WORK WINDOWS	
Tidal Reference Area 14 (Ocean Beaches): All saltwater area between Cape Flattery and the Oregon border at the mouth of the Columbia River, excluding Grays Harbor and Willapa Bay.	June 15 – February 28	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	------ ------ March 2 - October 14
Tidal Reference Area 15 (Westport): All saltwater area in Grays Harbor easterly of a line projected from the outermost end of the north jetty to the outermost end of the south jetty, and westerly of 123° 59' W. longitude.	June 15 – February 28	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	------ April 1 – January 31 March 2 – October 14
Tidal Reference Area 16 (Aberdeen): All saltwater area in Grays Harbor easterly of 123° 59' W. longitude and westerly of the Union Pacific railroad bridge across the Chehalis River.	June 15 – February 28	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	------ ------ March 2 – October 14
Tidal Reference Area 17 (Willapa Bay): All saltwater area in Willapa Bay easterly of a line projected from Leadbetter Point to Cape Shoalwater Light.	June 15 – February 28	July 16 – February 15	Surf Smelt Pacific Herring Pacific Sand Lance	------ March 15 – January 31 March 2 – October 14

ArcGIS ▾ Forage Fish Spawning Map - Washington State

Details | Basemap | Share | Print | Measure | Find addres

Legend

Forage Fish Spawning Data

Sand Lance Spawning

Smelt Spawning

Herring Spawning

Pre-spawner Herrring Holding Areas

WADNR Aquatic Reserves Forage Fish Survey Data

Sand Lance Spawning

Smelt Spawning

STRAIT OF JUAN DE FUCA

PACIFIC OCEAN

MUKKAW BAY

ZONE V

Makah Indian Reservation
AREA NOT INCLUDED

ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FT.NGVD)	DESCRIPTION OF LOCATION
RM132	16.08	USE standard brass disk stamped "A12 EL 16 USE/PRM," located 58-1/2 feet north of the centerline of the State Highway 112, 62.3 feet northeast of the northeast corner of the Bahman Creek highway bridge, 58-1/2 feet east of the centerline of the gravel drive leading west, 1.0 foot west of a metal witness post, flat in the top of a concrete post flush with the level of the ground.

ZONE V3
(EL 16)

ZONE A1
(EL 8)

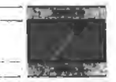
RM132

ZONE C

ZONE A

ZONE C

KEY TO MAP



100-Year Flood Boundary
500-Year Flood Boundary
Zone Designations
100-Year Flood Boundary
200-Year Flood Boundary
Base Flood Elevation Line With Elevation In Feet*
Base Flood Elevation In Feet Where Uniform Within Zone*
Elevation Reference Mark
Zone D Boundary
River Mile

(EL 987)
RM7x
•M1.5

*Referenced to the National Geodetic Vertical Datum of 1929

EXPLANATION OF ZONE DESIGNATIONS

ZONE	EXPLANATION
A	Areas of 100-year (base) flood elevations and flood hazard factors not determined.
AE	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet (average depths of inundation are shown), but no flood hazard factors are determined.
AH	Areas of 100-year shallow flooding where depths are between one (1) and three (3) feet (base flood elevations are shown), but no flood hazard factors are determined.
A1-A30	Areas of 100-year (base) flood elevations and flood hazard factors determined.
A99	Areas of 100-year flood to be protected by flood protection system under construction; base flood elevations and flood hazard factors not determined.
B	Areas between limits of the 100-year flood and 500-year flood; or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile; or areas protected by levees from the base flood. (Medium shading)
C	Areas of minimal flooding. (No shading)
D	Areas of undetermined, but possible, flood hazards.
V	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors not determined.
V1-V30	Areas of 100-year coastal flood with velocity (wave action); base flood elevations and flood hazard factors determined.

NOTES TO USER

This map is for use in administering the National Flood Insurance Program. It does not necessarily identify all areas subject to flooding, particularly from local drainage sources of small size, or all plan-metric features outside Special Flood Hazard Areas.

Areas of special flood hazard (100-year flood) include Zones A, A1-30, AE, AH, A99, V, V1-30, and VE.

Certain areas not in the Special Flood Hazard Areas (Zones A and V) may be protected by flood control structures.

Coastal base flood elevations apply only landward of the shoreline shown on this map.

For subdivided or split parcels, base flood elevations may differ from those shown on this map. To determine which elevation to use for a subdivided or split parcel, locate the parcel on the map and use the elevation for the zone in which it is located.

INITIAL IDENTIFICATION:
JANUARY 26, 1978

FLOOD HAZARD BOUNDARY MAP REVISIONS:
APRIL 4, 1978

FLOOD INSURANCE RATE MAP EFFECTIVE:
NOVEMBER 5, 1980

FLOOD INSURANCE RATE MAP REVISIONS:
Map revised February 16, 1983, to change corporate limits, flood boundaries, and revised protection.

Map revised December 5, 1989 to update coastal flood elevations, to change flood elevations, to incorporate letter of map revision(s), to add coastal flood hazard areas, to reflect updated topographic information, and to change Zone(s).

For administration of flood insurance in applicable communities, consult your Insurance Agent or call the National Flood Insurance Program at (800) 638-6620.

APPROXIMATE SCALE IN FEET

NATIONAL FLOOD INSURANCE PROGRAM

FIRM
FLOOD INSURANCE RATE MAP

CLALLAM COUNTY, WASHINGTON (UNINCORPORATED AREAS)

PANEL 75 OF 725
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
530021 0075 D

MAP REVISED:
DECEMBER 5, 1989

Federal Emergency Management Agency

H2O #_____ Receipt#_____ By:_____
BPT#_____ Check# _____ Date:_____

CLALLAM COUNTY
Human & Health Services
Environmental Health Services
Water Availability Verification

$70.00

INCOMPLETE APPLICATIONS WILL NOT BE ACCEPTED

Prior to the issuance of a Building Permit for any building requiring potable water, evidence of an adequate water supply must be provided by the applicant to Clallam County Environmental Health Services. Please complete the appropriate sections of this form to verify water availability for either public or individual water systems. Return it to CLALLAM COUNTY ENVIRONMENTAL HEALTH SERVICES. Mailing address: 111 E. 3rd St. Port Angeles, WA 98362
Physical address: County Courthouse 223 E. 4th St., Room 130, Port Angeles
If you have any questions, please call the office at (360) 417-2506.

Owner's Name: _____ Phone #_____

Agent's Name: _____ Phone# _____

Mailing Address: _____

City/State/Zip: _____

E-mail address: _____

Parcel Number: _____

Site Address (if available) or street name: _____

Check type of proposal:

___ New Construction of _____
___ Replacement of existing residence
___ Remodel of existing residence
___ Second residence on a parcel
___ Land Division
___ Other: _____

_____ _____
Applicant's (or agent's) Signature **Date**

(Continued on other side --- OVER>)

PUBLIC WATER SYSTEMS (two or more connections)

This section is to be completed by the Water Purveyor. <u>An attached letter, signed by the purveyor is also acceptable.</u>

The _____ public water system is capable of and willing to supply water to parcel number _____. The above public water system is approved for _____ service connections. It is currently serving _____ active connection(s) with _____ connection(s) committed. The water system facilities necessary to adequately provide service to this site have been designed, approved and installed per WAC 246-290.

Purveyor's Name: _____ Phone # _____
Mailing Address: _____
Signature: _____ Date _____
Month/Year water system was approved: _____

INDIVIDUAL WATER SYSTEMS

Type of Water Source (check one)

_____ Individual Well
_____ Surface Water* (Dept. of Ecology Water Right Required)
_____ Spring* (Dept. of Ecology Water Right may be required)

Attach the following documents in order to verify the availability (quantity and quality) of water:

___ 1. A scaled plot plan, clearly showing water source location;
___ 2. A well log; or a bailer test, air line test or pump test, (which was performed for a minimum of one hour, verifying a minimum yield of 800 gallons per day; minimum 0.56 gallons per minute (*this may be indicated on your well log*));
___ 3. Satisfactory Bacteriological results; (within 1 year)
___ 4. Satisfactory Nitrate results; (within 3 years)
___ 5. *If required, a copy of State Dept. of Ecology Water Right;
___ 6. Any additional information deemed necessary by the Clallam County Environmental Health Division

---

* * * * * * * * * * * * ***FOR ENVIRONMENTAL HEALTH USE ONLY*** * * * * * * * * * * * *
DO NOT WRITE OR SIGN BELOW THIS LINE

The Clallam County Environmental Health Division has reviewed the available information related to water adequacy for the above parcel number. Based on this information, this office finds that the water available to this parcel meets the guidelines established by the Department of Ecology (1993) for the purpose of implementing the provisions of RCW 19.27.097 and applicable Uniform Plumbing Codes.

_____ _____
Environmental Health Representative's Signature Date

J:\eh\water\FORMS\wateravailabityverification.docx
Revision 8/2/16 Form update

Clallam County Department
Of Community Development

PERMIT APPLICATION SITE PLAN REQUIREMENTS

In order to help us process your permit request as efficiently as possible, please show ALL of the following information on the plot plan. All site plan sheets must be to scale and accurate. You may use the attached sheet or equivalent. Please note that the type of permit you are applying for may ask for additional information.

- ❑ Property Dimensions (including location of any monuments or markers as a result of a survey)
- ❑ North Arrow
- ❑ Scale (Minimum 1" = 20'; Maximum 1" = 200')

Critical Area Requirements

- ❑ The location of Natural Features (including rivers, creeks, streams, bluffs, slopes (both man-made or natural banks)
- ❑ Topography (including slope, grade and direction)
- ❑ Location of all critical areas on parcel (may be on a separate sheet)
- ❑ Show location of all critical areas plus associated buffers within 200' of proposed development. Show buffer fencing and/or flagging as located on site. (streams, wetlands, and landslide only)
- ❑ Outline all areas, on your parcel, within 200' of proposed development that have been or will be subject to clearing and grading.
- ❑ Location of floodplains, floodways and channel meander hazards (including elevations)

Existing and Proposed Improvements

- ❑ Location, width and names of all private or public roads, streets, right of ways or easements
- ❑ Location of existing or proposed driveway(s) (including length, width and type of surface)
- ❑ Setbacks for all improvements from property lines, utility lines, easements, roads and distance between structures
- ❑ Location of existing and proposed structure(s), including decks, pads, and foundations.
- ❑ Location of septic tank(s), drainfield(s) and reserve area or sewer lines
- ❑ Location of well(s), spring(s) or water lines (including name of water system, as applicable)
- ❑ Location of well-head protection area(s) (if applicable)
- ❑ Location of utility easements and/or utility lines and irrigation ditches
- ❑ Location of above or below ground storage tank(s) including tank capacity
- ❑ Drainage Facilities (drywells or other proposed drainage plan)

Commercial Applications must include all of the above plus these additional items.

- ❑ Parking Facilities, showing spaces and drive aisles, as per CCC 33.55
- ❑ Landscaping; showing location of plants, species listing as per CCC 33.53
- ❑ Outdoor Lighting; including, location, fixture type/typical and specification sheets
- ❑ Signage (all exterior signs); as per CCC 33.57
- ❑ All Impervious Surface Area
- ❑ Location of Fire Hydrants or Fire Protection Facilities

Applicant Signature _____ **Date**_____

FOR OFFICE USE ONLY

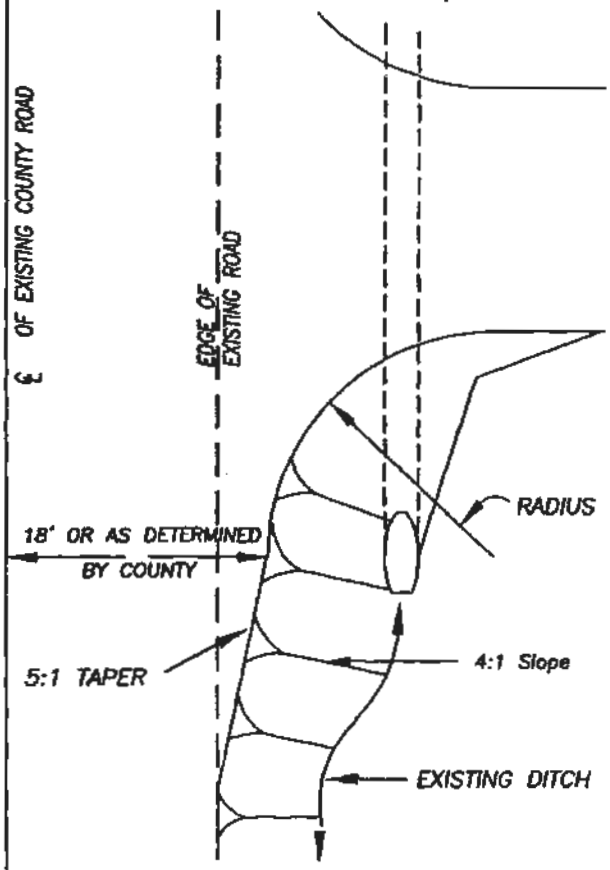
Applicant_____ **Parcel #**_____ _____
Date Received

Permit#_____ **Staff Initials**_____

ROAD APPROACH DETAILS

COMMERCIAL AND RESIDENTIAL APPLICATIONS

PLAN



NOTES:

DRIVEWAY MUST LEAD TO AN ADEQUATE TURN AROUND AREA SO VEHICLE CAN TURN AROUND AND EXIT PROPERTY IN A FORWARD MOTION UNLESS APPROVED OTHERWISE.

★ ALL SIGHT OBSTRUCTIONS MUST BE PERMANENTLY REMOVED.

★ DRIVEWAY WIDTH AT R/W LINE
= 15' TO 18' FOR SINGLE FAMILY
= 24' TO 30' FOR COMMERCIAL AND MULTI FAMILY.

★ SHAPE DRIVEWAY SO THAT WATER DOES NOT RUN ONTO COUNTY ROAD.

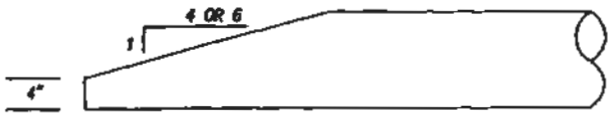
★ APPROACH SHOULD BE AT A 90 DEGREE ANGLE +/− 15 DEGREES.

★ SINGLE FAMILY DRIVEWAYS SHALL HAVE 15' RADIUS OF RETURNS AND TAPERS AT 5:1.

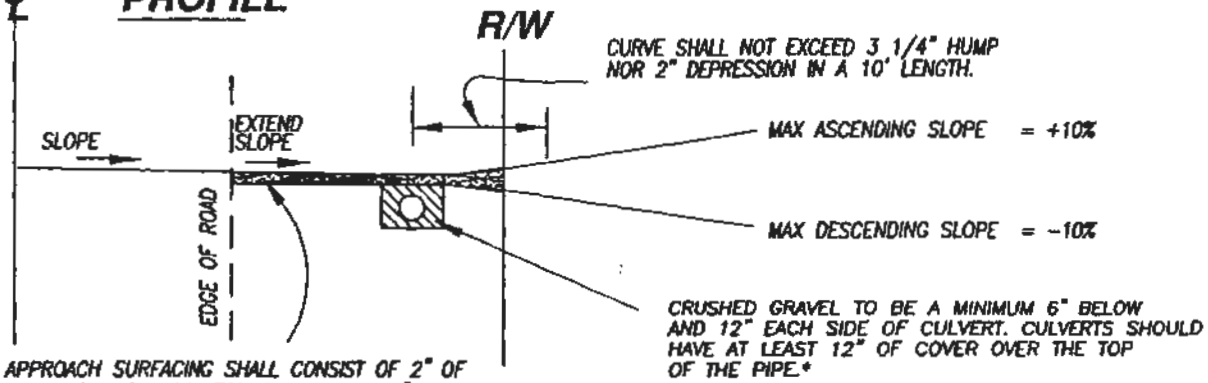
★ COMMERCIAL DRIVES WILL HAVE RADIUS OF RETURNS AND TAPERS DETERMINED BY THE ROAD DEPARTMENT.

★ SLOPE FROM DRIVE TO DITCH WILL BE DETERMINED BY COUNTY ENGINEER. SLOPE SHALL BE 4 OR 6 HORIZONTAL : 1 VERTICAL.

BEVEL ENDS OF CULVERT AS SHOWN



PROFILE



APPROACH SURFACING SHALL CONSIST OF 2" OF CRUSHED SURFACING TOP COURSE AND 6" OF PIT RUN GRAVEL (MULTI FAMILY AND COMMERCIAL APPROACHES SHALL BE TOPPED WITH 2" OF ASPHALT CONCRETE).*

*ALL MATERIALS TO BE THOROUGHLY COMPACTED. THICKNESS GIVEN ARE MINIMUM THICKNESSES.

CLALLAM COUNTY BUILDING DEPARTMENT

ADDRESS REQUEST

$50.00 FEE

LOCATION OF DRIVEWAY MUST BE IDENTIFIED BEFORE ADDRESS CAN BE ASSIGNED

Property Owner(s): _____ Mailing Address: _____ City, State, Zip: _____ Email: _____ Phone: _____	For Office Use Only ADR # _____ RCPT/CHK NO. _____ DATE REC'D: _____
Main Contact: Phone: Email:	
Tax Parcel No.	Zip Code:
ROAD NAME (Named road that driveway accesses)	***SHARED DRIVEWAY*** (Does your driveway or unnamed easement also serve any other homes or lots?) **YES** **NO**
Nearest Existing Placard Numbers (on same road or on shared driveway)? **Above** _____ **Below** _____	Length of Proposed Driveway? Gate or Obstruction? **YES** **NO**
Directions to Site (from a state highway): ***Please sketch map to site on back of this form.***	

PLEASE NOTE: If you foresee your driveway will serve 5 or more addresses, it is advisable to name it as a private road now. A sixth address on one driveway cannot be done without naming the road. Please read explanation on back.

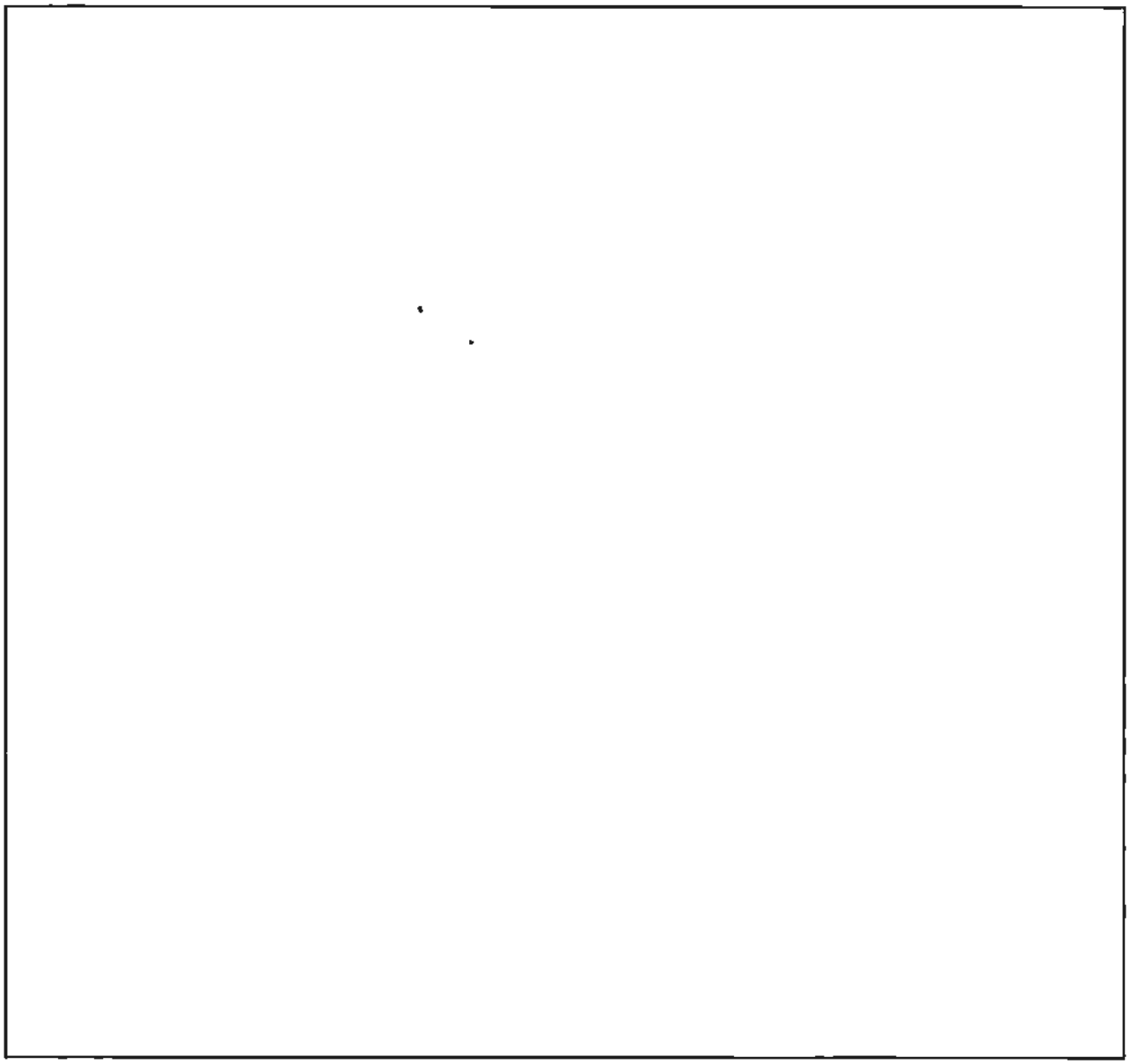
FOR OFFICE USE ONLY		
Rural / Grid	Pending Road Name:	
Private / County / Hwy RDP # _____	Actual Road Name: **Assigned Address:**	
Comments:		Verified: _____ Database Entry: _____ Addressee Notified: _____ Placard Made: _____

If your driveway is shared with other existing or potential residences, please read and respond to the following:

Addresses are calculated based on the distance from the road origin to the driveway. Each driveway can potentially accommodate five (5) addresses, all odd or all even, with the numbers increasing up the driveway. (for example: 1240, 1242, 1244, 1246 and 1248). Once there are too many addresses to fit this pattern, the driveway must be named as a private road, with addresses based on the distances up that road.

If you foresee your shared driveway exceeding the five (5) potential addresses, it should be named so that it can accommodate an unlimited number of future addresses. If it appears your driveway will serve two to five (2 – 5) addresses, yours must fit correctly with any other existing or potential accesses to it.

Please sketch your driveway, showing the connection to the named road, and any other existing driveways connecting to your driveway, as well as any undeveloped lots that may also connect to your driveway.



CLALLAM COUNTY ROAD APPROACH PERMIT
INSTRUCTIONS AND CONDITIONS FOR APPLICANTS

Persons desiring to install road approaches onto County property, including County roads, shall first file a "Clallam County Road Approach Permit" with the County Engineer and shall obtain approval prior to beginning work. The work and materials shall conform to the conditions below, the conditions stated on the face of the permit, and shall conform to the requirements on the detail sheet for residential applications or commercial applications, whichever is applicable.

UPON COMPLETION OF THE WORK, THE APPLICANT SHALL NOTIFY THE COUNTY PUBLIC WORKS DEPARTMENT AT (360) 417-2379 FOR FINAL INSPECTION AND APPROVAL.

PERMIT CONDITIONS

1. The applicant, designated herein as the "grantee", his agents, successors and assigns, shall have the right and, authority to enter upon the right of way of the County road, street, alley, public place or structure as indicated on the front of this form, for the purpose of doing such work as applied for, and approved by the County Engineer.

2. The location, type of work, materials and equipment used, manner of erection or construction, safeguarding of public traffic during work or after doing same, mode of operation and manner of maintenance of project petitioned for, shall be approved by the County Engineer prior to start of work and shall be subject to the inspection of the County Engineer so as to assure proper compliance with the terms of this permit.

3. **The grantee shall commence work within 30 days after the granting of this permit, if the grantee shall have not completed the installation by the date specified on the permit, the rights herein conferred shall cease and terminate unless additional time is requested by the grantee and approved by the county.**

4. The grantee shall leave all roads, streets, alleys, public places, and structures after installation and operation or removal of utility, in as good and safe a condition in all respects as same were in before commencement of work by grantee.

5. In case of any damage to any roads, streets, public places, structures or public property of any kind on account of said work by the grantee, he will at once repair said damage at his own sole cost and expense.

6. The County Engineer, his agents or representatives may do, order, or have done any and all work considered necessary to restore to a safe condition any street, alley, public place or structure which is in a condition dangerous to a life or property resulting from the grantee's facility or its installation as permitted herein, and upon demand the grantee shall pay to the County all costs of such work and material.

7. If at any time the County deems it advisable to widen, grade, regrade, plant, pave, improve, alter or repair any road, street, public place or structure, the County will not be obligated to spend time nor money due to the permitted installation. The grantee will, at his own sole cost and expense, raise, lower, change, move or reconstruct such installation to conform to the plans or work contemplated or ordered by the County.

8. If upon written notice by the County Engineer the grantee fails to relocate any portion or all of the project as granted under this permit, the County, its agents or representatives may do any work at the cost and expense of the grantee, and all costs to remove or reconstruct same, shall be born by the grantee.

9. All such changes, reconstruction or relocation by the grantees shall be done in such a manner as will cause the least interference with any of the County's work and shall be subject to the same provisions which control an original installation. The County shall in no wise be held liable for any damage to the grantee by reason of any such work by the County, its agents or representatives, or by the exercise of any rights by the County upon roads, streets, public places or structures in question. The grantee shall have twenty-four (24) hours written notice by the County Engineer or his representatives or agents of any blasting contiguous to the grantee's permit rights in order that he may protect his interests.

10. This grant or privilege shall not be deemed or held to be an exclusive franchise, nor prohibit the County from granting other permits of franchise rights of like or other nature to other public or private entities, nor shall it prevent the County from using any of its roads, street, public places for any and all public use, or affect its jurisdiction over all or any part of them.

11. All the provisions, conditions, regulations and requirements herein contained shall be binding upon the successors and assigns of the grantee and all privileges of the grantee shall inure to such successors and assigns as if they were specifically mentioned.

12. The County Engineer may revoke, annul or terminate this permit if grantee fails to comply with any or all of its provisions, requirements or regulations as herein set forth or through willful or unreasonable neglect, fails to heed or comply with notices given him or if the work herein permitted is not installed or operated and maintained in conformity herewith or at all.

13. The Board of County Commissioners may at any time, change, amend, modify, or terminate any of the conditions herein enumerated so as to conform to any state statute or county regulation pertaining to the public welfare, safety, health, or highway regulations as are, or may hereinafter bet enacted, adopted or amended, etc. The Board may terminate this permit if grantee fails to comply with any such changes.

14. In accepting this permit the grantee agrees to notify and check with all utilities regarding their installations before commencing work, together with private property owners when such property is liable to injury or damage through the performance of such work, and the applicant shall make all necessary arrangements relative to the protection of such property and/or utilities.

15. In accepting this permit the grantee, his agents, successors and assigns, agrees to protect and save harmless the County from all claims, actions or damages of every kind and description which may accrue to or be suffered by any person or persons, corporation or property by reason of the performance of any such work, character of materials used or manner of installation, maintenance and operation or by the improper occupancy of rights of way or public place or public structure, and in case any such suit or action is brought against said County for damages arising out of or by reason of any of the above causes, the grantee, his agents, successors or assigns will upon written notice to him or them or commencement of such action defend the same at his or their sole cost and expense and will fully satisfy any judgment after the said suit or action shall have finally been determined if adversely to the County.

FORM RDPCOND51500

Clallam County Public Works Department
223 East Fourth Street, Suite 6 Port Angeles, WA 98362
360- 417-2379 Phone 360-417-2513 Fax

$180 FEE Minimum due With Application

ROAD NO. _____
ROAD NAME _____

PERMIT NO. _____
COUNTY USE ONLY

CLALLAM COUNTY ROAD APPROACH PERMIT

In Clallam County, an approved Road Approach is required if your parcel is accessed from a County Road. Building permits will not be finaled until a legal Road Approach is in place and functioning as permitted.

PLEASE PRINT Building Permit Application Submitted? Yes ☐ No ☐

County Road:	Tax Parcel # :
Landowner:	Prepared By (Agent):
Mailing Address:	Address:
City, State, Zip:	City, State, Zip:
Phone/Cell Phone/Fax:	Phone/Cell Phone/Fax:
Short Plat Name & Lot No.:	Contractor's Name/Address/Phone:

Do you have critical areas on your property? Yes ☐ No ☐ If "No", proceed with this application. If "Yes", or you are not sure, STOP. See the Planning Department for a determination before you proceed.

ROAD APPROACH PERMISSION IS REQUESTED FOR:
Check all that apply below:

- ☐ Single-lot driveway
- ☐ Multiple-lot driveway
- ☐ Commercial driveway
- ☐ Agricultural driveway
- ☐ Permanent access
- ☐ Temporary access
- ☐ Upgrade of existing approach
- ☐ Review of existing approach
- ☐ Pave Approach

WHEN APPROVED:
Check one item below:

- ☐ Mail permit to Landowner
- ☐ Mail permit to Contractor/Agent
- ☐ Call when approved _____

ATTACH AN ACCURATE AND DETAILED SITE PLAN MAP (NO LARGER THAN 11" X 17") THAT MARKS THE LOCATION OF THE PROPOSED ROAD APPROACH PROJECT. A SITE PLAN FORM IS PROVIDED.

THE EXACT LOCATION OF THE DRIVEWAY OR ACCESS ROAD MUST BE MARKED BY A WOOD STAKE PLACED AT THE CENTER OF THE WORK AREA BEFORE SUBMITTING THIS FORM. THE STAKE MUST BE LABELED WITH THE NAME OF THE APPLICANT. FAILURE TO COMPLY WILL RESULT IN DELAY OF THE PROCESSING OF THIS PERMIT.

It is the responsibility of the applicant to notify all utilities and private property owners when such property is liable to injury or damage through the performance of the permitted work. The applicant shall make all necessary arrangements relative to the protection of such property and/or utilities.
By signing this permit, the applicant agrees to comply with all conditions as stated on the PERMIT and on Form RDPCOND51500. Applicant has 10 days from permit approval date to request clarification of or modification to permit conditions stated below or attached.

Signed _____ Date _____
Check one: ☐ Owner ☐ Contractor ☐ Agent

PERMISSION IS HEREBY ☐ GRANTED ☐ DENIED

Amount/Date Paid
Receipt #
Rec'd By
Building Permit BPT#

Inspections Required: ☐ _____ ☐ Prior to Paving ☑ **Final**
☐ Prior to Cover

PERMIT CONDITIONS:
The approved Permit must be posted on site until Final Inspection POSTING COPY PROVIDED TO: _____

- Underground utility location required prior to start date. "Call Before You Dig" phone number 1-800-424-5555.
- Safety vests required when working on road right of way.
- Traffic control signs are required.
- Must comply with County utility location standards.
- Driveway shall not protrude into County road. Landowner, applicant, contractor or agent shall not damage or leave mud or other debris on a County road.
- No landscaping or decorative electrical utilities permitted in County right of way.
- Private contractor to install. See inspection requirements.
- Compaction in 6-inch lifts required.
- Backfill must be compacted, granular material.
- Driveway shall be built in accordance with County's Road Approach Details.

Critical Areas Checked ☐ Conditions:

- ☐ Certified flag person required at all times.
- ☐ Certified flag person required as needed.
- ☐ Truck Crossing Ahead signs required.
- ☐ No culvert required
- ☐ Approach to be paved_____
- ☐ Culvert required: ____ Diameter ____ Length with ends tapered at 4:1.
  Allowable Type(s): ☐ Concrete ☐ Galvanized steel ☐ Aluminum
  ☐ Aluminized ☐ Corrugated poly. with smooth interior
- ☐ Culvert shall not impede drainage.
- ☐ _____

This permit shall be void unless the work herein contemplated is completed before the following date:_____

_____
Area Supervisor/Design Review Engineer Date

Final Inspection By: _____
Date: _____

FEE: $30.00
Due with application

Clallam County Public Works Department
223 East Fourth Street, Suite 6 Port Angeles, WA 98362
360- 417-2379 Phone 360-417-2513 Fax

DRA _____

STANDARD METHOD DRAINAGE PLAN

Drywell Calculation Worksheet

PLEASE PRINT. LEAVE NO BLANK LINES.

Tax Parcel # _____

Landowner: _____ Prepared By (Agent): _____

Address: _____ Address: _____

City, State, Zip: _____ City, State, Zip: _____

Phone: _____ Phone: _____

Nearest County Road: _____ Short Plat Name: _____

DRIVEWAY:____ Not on County road (accesses private road, easement, or State highway) Block: _____ Lot: _____

____ Submitting permit now for driveway approach onto County road Volume: _____ Page: _____

____ Existing driveway approach onto County road Acreage: _____ Soils: _____

The standard method of installing drywells for stormwater runoff will be used, based on the calculations below:
Fill in the blanks and check appropriate check boxes:

Square footage of proposed roof area: _____ x _____ = _____cubic yards
(square feet) (factor #6 below) (drywell size)

Type of building: ☐house/garage ☐carport ☐barn ☐shop ☐other (specify) _____

Square footage of proposed roof area: _____ x _____ = _____cubic yards
☐ additional ☐ future (square feet) (factor #6 below) (drywell size)

Type of building: ☐house/garage ☐carport ☐barn ☐shop ☐other (specify) _____

Regarding pre-approval for additional/future structure: Locations and dimensions must be shown on this site plan for future drainage fees to be waived. Future/Additional structures which create impervious areas that are equal to or greater than 5,000 square feet may require engineered drainage plans.

I hereby certify the information provided on this sheet is true and accurate to the best of my knowledge.

_____ _____
Signature of Owner/Owner's Agent Date

COUNTY USE ONLY		
Amount & Date Paid		
Receipt # / Check #		
Received By _____	DCD	RD
Building Permit #		

INSTRUCTIONS FOR PREPARING PLOT PLANS:

The Standard Method of drainage control which utilizes downspout drywells requires the submittal of a plot plan of your parcel. This is the key item the County needs to determine the suitability of your drainage facilities.

The plot plan you submit will be filed for future reference to indicate the degree of a parcel's development. It is important that it accurately shows the parcel and all the development on it. The following items need to be included on the plot plan for us to process your application.

1. **It must be drawn accurately and to scale on a sheet no larger than 11" x 17".** Crude sketches are not suitable. If you cannot draw it neatly to scale yourself, you should consider hiring someone else or having a friend do it for you.
2. **Show significant dimensions,** for example, property line lengths, setbacks, driveway width and length, lawn dimensions, etc.
3. **Show a north arrow and the scale of the drawings.**
4. **Show all features of the property,** including but not limited to: buildings, driveways, sidewalks, parking areas (indicate whether they are dirt, gravel, or paved), lawns, landscaping, decks, fields, pasture, woods, septic tank and drainfield, etc. Also show all areas which are to remain completely undisturbed. Make sure you differentiate between what is existing and what is proposed. This can be done by drawing the proposed improvements with dotted lines or by labeling the proposed improvements as such.
5. **Show contour lines or slope arrows** showing which direction the property drains. Indicate the steepness of the grade, for example, "1 foot fall in 50 feet" or "10 degree slope."
6. **Show locations of proposed downspout drywells. Show the proposed size** of each drywell in cubic yards using the following formula:

   Square feet of roof area **mulitplied by** factor (see below) **equals** cubic yards of drain rock

Sequim Area Factor	= 0.0048	Forks Area Factor	= 0.0099
Port Angeles Area Factor	= 0.0047	Clallam Bay/Sekiu Area Factor	= 0.0072

   Determine the size of each drywell independently, based upon how much roof area drains into it. The roof area is figured by how much square footage of land will be covered by the roof, as if the roof was flat.
7. **Give the size of all new buildings in square feet**. Show the square footage of **roof "footprint" area** that drains into each drywell.

Clallam County
Department of
Community Development

BUILDING DEPARTMENT

223 East 4th Street, Suite 5
Port Angeles, WA 98362-3015
360.417.2318 Fax: 360.417.2443

DIRECTIONS TO SITE
LOCALITY MAP

Please draw clear and precise directions to the building site from the closest major highway.

NORTH ↑

Clallam County Department of Community Development

DATE REC'D:_____

BPT # _____

MANUFACTURED HOME PLACEMENT PERMIT APPLICATION

Tax Parcel Number: _____ **Lot Size:** _____

SITE ADDRESS: _____

PROPERTY OWNER NAME: _____
MAILING ADDRESS: _____
CITY, STATE, ZIP _____
Home Phone: _____ **Work Phone:** _____ **E-mail:** _____

MAIN CONTACT: _____ **PHONE:** _____

APPLICANT/CONTRACTOR: _____
MAILING ADDRESS: _____
CITY, STATE, ZIP: _____
STATE CONTRACTOR LICENSE NO.: _____ **EXPIRES ON:** _____
Home Phone: _____ **Work Phone:** _____ **E-mail:** _____

LENDING INSTITUTION (AS PER RCW 19.27.095): _____

TYPE OF SEPTIC SYSTEM (i.e. Individual, Community or Municipal): _____
SOURCE OF POTABLE WATER: _____
WHICH DRAINAGE PLAN: _____

WRITTEN DIRECTIONS TO SITE FROM A STATE HWY:

_____
_____
_____

HOME VALUE $ _____ **(NEW/REPLACEMENT)**
MANUFACTURER NAME _____ **SERIAL #** _____ **YEAR** _____
SWMH _____ **DWMH** _____ **TWMH** _____ **DIMENSIONS** _____

NO. OF BEDROOMS _____ **NO. PLUMBING DRAINS** _____ **TYPE OF HEAT** _____
PROPANE TANK SIZE _____ **(ABOVE GROUND/UNDERGROUND)**
FOUNDATION (CHECK ONE): PADS _____ **RUNNER** _____ **SLAB** _____ **PITSET** _____

SQUARE FOOTAGE OF:

MANUFACTURED HOME: _____ **GARAGE** _____ **CARPORT** _____
COVERED PATIO/PORCH _____ **DECK** _____ **COVERED DECK** _____

****SEPARATE BUILDING PERMITS ARE REQUIRED FOR FREESTANDING CARPORTS, DECKS COVERED PATIOS & PORCHES. IF THESE STRUCTURES WILL BE ATTACHED TO THE MANUFACTURED HOME AN ALTERATION PERMIT FROM LABOR & INDUSTRIES IS ALSO REQUIRED AND MUST BE SUBMITTED WITH THE APPLICATION FOR BUILDING PERMITS.**

This application is complete and correct to the best of my knowledge

_____
Signature ☐OWNER / ☐AGENT / ☐CONTRACTOR **Date**

FOR STAFF USE ONLY:

SEP/SOM _____
H2O _____
DRA _____
RDP _____
CRI _____
WRIA _____
STATE HWY/DOT _____
OWNERSHIP _____
ZONING _____ *SETBACKS* _____
PARCEL DESCRIPTION _____

ADDRESS _____
PERMIT FEE 500.00
REC #/CK # _____
DATE _____

CRITICAL AREA REVIEW:

WETLANDS _____ *GEOLOGIC HAZARD* _____
AQUATIC & WILDLIFE _____ *SHORELINE* _____
AQUIFER RECHARGE _____ *FLOODPLAIN* _____
ELEVATION CERTIFICATE _____ *PRIOR FOREST PRACTICE* _____
OK OR TO BE ROUTED FOR RESPONSE _____

MANUFACTURED HOME
PERMIT APPLICATION CHECKLIST

- ❑ **COMPLETED WORKSHEET APPLICATION**
- ❑ **DETAILED SCALED PLOT PLAN**
- ❑ **DRAINAGE PLAN** (Contact (360) 417-2379 w/questions)
  - ❑ Standard Drywell Drainage Plan - $30.00 fee
  - ❑ Engineered Drainage Plan - $125.00 fee
  - ❑ Engineered Drainage Plan for Critical Areas – $180.00 fee
  - ❑ Engineered Drainage Plan for Commercial - $340.00 fee
- ❑ **POTABLE WATER AVAILABILITY REVIEW** with appropriate fee and one of the following: (Contact (360) 417-2334 w/questions)
  - ❑ Availability letter from Purveyor
  - ❑ Well log, Bacteria Test, Nitrate Test
- ❑ **SEPTIC SYSTEM** (Contact (360) 417-2506 w/questions)
  - ❑ New Septic Construction Permit
  - ❑ Sanitary Survey of existing system
  - ❑ Expansion / Modifications of existing system
- ❑ **ROAD APPROACH PERMIT** for accessing off County Road with $180.00 fee (Contact (360) 417-2379 w/questions)
- ❑ **911 ADDRESS** with $50.00 fee (Contact (360) 417-2595, 417-2569 or 417-2318 w/questions)
- ❑ **STRUCTURAL DRAWINGS**
  - ❑ Floor plan
  - ❑ Foundation plan
- ❑ **DUNGENESS WATER RULE AREA:** Any parcel located in The Dungeness Water Rule Area, having a well as source of potable water may require mitigation with the Washington State Dept. of Ecology. (Contact (206) 675-1585 x102) Mitigation Application may be downloaded @ www.washingtonwatertrust.org
- ❑ **OWNERSHIP**

  If your property was recently purchased and it is not in the Assessor's computer system, or someone owns it other than yourself, or the proposed project hinges on a real estate transaction, then **Proof of Ownership** is required. This can be done by providing a copy of the **Deed** filed in the Auditor's Office or by obtaining a letter from the owner stating their willingness to allow you to place/build a structure on their parcel (reference parcel number).

After we receive the application, it is reviewed by our Staff for compliance. We will compare your plot plan and parcel number with several different maps to verify compliance with many different state and county codes. SOME OF THE REQUIREMENTS INCLUDE: critical area maps (wetlands, bluffs, floodplains, creeks, rivers, streams, wildlife habitat, aquifer recharge, hydric soils, erosion, landslide and seismic areas), legal lot sizes and setbacks from property lines or critical areas to your proposed site. If you are in, or close to, a critical area you may be required to sign a "Notice to Title" which we will file with the County Auditor disclosing the critical area is on or near your parcel of land. Most applicants are very much aware of these on their property (creek, bluff, pond, Strait of Juan de Fuca, for example). If you are building near a critical area, you will be notified if further studies or reports are needed prior to issuance of your permit. This may include temporary fencing of wetlands or stream buffers, or marking of the buffer or landslide hazards with stakes. This usually happens when the property is so restricted by the critical area that development could adversely affect the area (such as a major wetland or steep hillside for example). An estimated one out of ten projects from this review is sent to our specialist for a site visit, and less than $1/10^{th}$ of those require a report.

PROJECT CONTRACT

Project Title Snow Creek **Project No.** 78-802A

1. Nature of Contract. This instrument, in 8 pages, of which this is the first, is intended to set out the terms and conditions, not otherwise appearing in statutes or regulations, of a grant of money from the Outdoor Recreation Account of the General Fund of the State of Washington to a state agency or local public body, herein called the Contracting Party, in aid of an outdoor recreation project. The state agency administering the grant is the Interagency Committee for Outdoor Recreation, herein called the Interagency Committee.

2. Assent of Contracting Party. The Contracting Party by the signature of its authorized representative below agrees to be bound by this instrument:

Department of Fisheries
Contracting Party

By [signature]

Title DIRECTOR

Date April 19, 1978

Approved as to form
This 19 day of
April, 1978.

[signature]
Attorney for
Contracting Party

3. Assent of Interagency Committee. The signature of the Administrator of the Interagency Committee below witnesses that the Interagency Committee agrees to be bound by this instrument:

STATE OF WASHINGTON
Interagency Committee for
Outdoor Recreation

[signature], ACTING FOR
Administrator

Date APRIL 11, 1978

Approved as to form

SLADE GORTON
Attorney General

[signature]
Assistant Attorney General

4. Project Period. The Contracting Party shall execute and complete the approved project during the period from April 15, 1978, until June 30, 1979.

5. Project Assisted. The outdoor recreation project to be assisted is the one set out in the Contracting Party's application to the Interagency Committee, dated January 31, 1978, as approved for funding by the Interagency Committee at its meeting on the 26th day of September, 1977*. For identification purposes it is entitled Snow Creek and briefly described as follows:

* Approved State Agency Capital Budget Master List of which this project is a part; the IAC Administrator approved this project for funding on April 7, 1978.

The acquisition of approximately 7.32 acres in Western Clallam County for future development as a boat launch and supporting items. The property to be acquired is legally described in Attachment "A".

Compliance with application: Unless otherwise agreed to in writing by the Administrator, the project shall be carried out according to the plans and proposals submitted by the contracting party in, or in connection with, its application for assistance for this project.

6. Funding of Project. (a) The total cost of the project covered by this Contract is $ 245,000.

(b) The Interagency Committee agrees to pay $ 245,000 or 100 percent of the total project cost, whichever amount is less, from monies available in the Outdoor Recreation Account of the State General Fund.

(c) In addition, the Interagency Committee agrees to recommend to the Bureau of Outdoor Recreation, United States Department of Interior, that federal matching funds in the amount of $ N/A or _____ percent of the estimated cost, whichever amount is less, be approved for this project, and the Interagency Committee agrees to pay to the Contracting Party any federal matching money made available to the State of Washington for the outdoor recreation project covered by this Contract.

7. Contingencies. The duty of the Interagency Committee to approve disbursement of funds pursuant to this Contract is contingent upon strict compliance by the Contracting Party with the terms of this Contract. The duty of the State of Washington to disburse funds is contingent on the funds being available in the Outdoor Recreation Account of the State General Fund.

8. Requirements of Bureau of Outdoor Recreation. If application has been made to the Bureau of Outdoor Recreation, United States Department of Interior, for assistance from the United States Land and Water Conservation Fund (see paragraph (c)) then a copy of Attachment 1 to Form BOR 8-92, Land and Water Conservation Fund Project Agreement, General Provisions, is attached to this contract and marked "Attachment A". If United States Land and Water Conservation Fund money is made available for this project, the Interagency Committee will be required to sign an agreement with the Bureau of Outdoor Recreation and the State of Washington and the recipient public body will be bound by the attached provisions. Therefore, if Land and Water Conservation Fund money is involved in this project, then the Contracting Party agrees to faithfully comply with all the requirements of Attachment A.

9. Project Performance. The Contracting Party shall execute and complete the approved project in accordance with the time schedule set forth in the project application. Unless a different schedule appears in the application or in this contract, the contractor's performance shall commence not later than sixty days after the date this contract has been signed by the Administrator. Unless otherwise agreed in writing, the Contracting Party's performance shall be completed by the end of the period covered by this contract.

10. Project Administration. (a) The Contracting Party shall promptly submit such reports as the Administrator of the Interagency Committee may request.

(b) Property and facilities acquired or developed pursuant to this contract shall be available for inspection by the Administrator upon request.

(c) The Contracting Party shall submit a final report when the project is completed or prematurely terminated, or project assistance is terminated. The report shall include a final accounting of all expenditures and a description of the work accomplished. If the project is not completed, the report shall contain an estimate of the percentage of completion, and shall indicate the degree of usefulness of the completed project, if not previously reported. The report shall contain a final accounting summarizing all expenditures not previously reported and shall include an overall summary for the entire project.

11. Project Termination. All obligations of the Interagency Committee under this contract may be suspended or canceled, at the option of the Interagency Committee, if any of the following has occurred:

(a) The Contracting Party has failed to make satisfactory progress to complete the project, or will be unable to complete the project, or any portion of it.

(b) The Contracting Party is failing to make satisfactory progress to complete any other project assisted with funds from the Outdoor Recreation Account of the State General Fund, or will be unable to complete another such project, or any portion of it.

12. Remedies. Because the benefit to be derived from the full compliance with the terms of this contract is the preservation, protection, and the net increase in the quantity and quality of public outdoor recreation facilities and resources which are available to the people of the state and of the United States, and because such benefit exceeds to an immeasurable and unascertainable extent the amount of money furnished under the terms of this contract, the Contracting Party agrees that repayment of an amount equal to the amount of assistance extended under this contract by

the State of Washington would be inadequate compensation for any failure to comply with the terms of this agreement. The Contracting Party agrees, therefore, that in the event of a breach of this agreement by it, specific performance shall be an appropriate remedy.

13. Restriction on Conversion of Facility to Other Uses. The Contracting Party shall not at any time convert any property or facility acquired or developed pursuant to this contract to uses other than those for which state assistance was originally approved without the prior approval of the Interagency Committee, in the manner provided by RCW 43.99.100 for marine recreation land, whether or not the property was acquired with Initiative 215 funds.

14. Use and Maintenance of Assisted Facility. The Contracting Party shall operate and maintain, or cause to be operated and maintained, the property or facilities which are the subject matter of this contract as follows:

(a) The property or facilities shall be maintained so as to appear attractive and inviting to the public.

(b) Sanitation and sanitary facilities shall be maintained in accordance with applicable state and local public health standards.

(c) The property or facilities shall be kept reasonably safe for public use.

(d) Buildings, roads, trails, and other structures and improvements shall be kept in reasonable repair throughout their estimated lifetime, so as to prevent undue deterioration that would discourage public use.

(e) The facility shall be kept open for public use at reasonable hours and times of the year, according to the type of area or facility.

(f) The property or facility shall be open for the use of all segments of the public without restriction because of the race, creed, color, sex, religion, national origin or residence of the user.

15. Reporting. Once a year, the Contracting Party shall certify to the Administrator that the project and all assisted facilities are being retained, operated, maintained and used in accordance with the terms of this contract. A report and certification will be partially prepared by the Interagency Committee and will be sent to the Contracting Party for completion. The Contracting Party shall also report on specific matters whenever requested to do so by the Administrator.

16. No Waiver by Interagency Committee. The Contracting Party agrees that failure by the Interagency Committee to insist upon the strict performance of any provision of this project contract or to exercise any right based upon a breach thereof, or acceptance by it of performance during such breach, shall not constitute a waiver of any of its rights under this project contract.

17. Identifying Markers. The Interagency Committee reserves the right to display, during the period covered by this contract and after project completion, appropriate signs or markers identifying the roles of the state and federal agencies participating financially in this project.

18. Disbursement of Assistance. Disbursement of the grant-in-aid shall be made in accordance with WAC 286-24-040, after the Contracting Party has furnished the Administrator such information as he shall deem necessary to show compliance with applicable statutes and rules and this contract.

19. Provisions Applying Only to Acquisition Projects. The following provisions shall be in force if the project covered by this contract is for the acquisition of outdoor recreation land or facilities, but shall not apply when the project is for development only:

(a) In the event Federal Land and Water Conservation Funds are included in this project per Section 6.(c) of this Contract, the Contracting Party agrees to comply with the terms and intent of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, 84 Stat. 1894 (1970) - Public Law 91-646, and the applicable regulations and procedures of the Department of the Interior implementing such act.

(b) In the event state funds only are included in this project per Section 6.(b) of this contract, the Contracting Party agrees to comply with the terms and intent of Uniform Relocation Assistance and Real Property Acquisition Policy of the State of Washington (Chapter 240, Laws of 1971, 1st Ex. Sess. - R.C.W. 8.26.010).

(c) Conditions applying only to Local Agencies -

1. In the event that housing and relocation costs, as contemplated by federal law (P.L. 91-646) and state law (Chapter 240, Laws of 1971, 1st Ex. Sess.), are involved in the execution of this project, the Contracting Party agrees that such costs, excluding administrative costs, will be added to the cost of the project and shared proportionately by the Interagency Committee and the Contracting Party;

2. In the event the Interagency Committee must perform any portion or all the work necessary to comply with the relocation requirements of the above-cited federal and state law, the Contracting Party agrees to reimburse the Interagency Committee for the actual administrative costs of performing such work.

(d) Conditions applying only to State Agencies -

In the event that housing and relocation costs, as contemplated by federal law (P.L. 91-646) and state law (Chapter 240, Laws of 1971, 1st Ex. Sess.), are involved in the execution of this project, the Contracting Party agrees to provide any housing and relocation assistance that may be necessary and will assume the administrative costs, with the understanding that the actual relocation costs will be a part of the total project cost.

(e) Evidence of Land Value. Prior to disbursement of the assistance provided for in this contract, the Contracting Party shall supply evidence establishing to the satisfaction of the Administrator that the land acquisition cost represents a fair and reasonable price for the land in question.

(f) Evidence of Title. The Contracting Party shall be responsible for providing satisfactory evidence of title or ability to acquire title for each parcel prior to disbursement of funds provided by this contract. Such evidence may include title

insurance policies, Torrens certificates, or abstracts, and attorney's opinions establishing that the land is free from any impediment, lien, or claim which would impair the uses contemplated by this contract.

(g) Deed of Right To Use Land For Public Recreation Purposes. The Contracting Party agrees to execute an instrument or instruments which contain (1) a legal description of the property acquired under this Project Contract; (2) a conveyance to the State of Washington of the right to use as described real property forever for outdoor recreation purposes, and (3) a restriction on conversion of use of the land in the manner provided in RCW 43.99.100, whether or not the real property covered by the deed is marine recreation land. RCW 43.99.100 reads as follows:

> "Marine recreation land with respect to which money has been expended under RCW 43.99.080 shall not, without the approval of the committee, be converted to uses other than those for which such expenditure was originally approved. The committee shall only approve any such conversion upon conditions which will assure the substitution of other marine recreation land of at least equal fair market value at the time of conversion and of as nearly as feasible equivalent usefulness and location."

20. Provisions Applying Only to Development Projects. The following provisions shall be in force if the project covered by this contract is for development of outdoor recreation land or facilities, but shall not apply when the project is for acquisition only:

(a) Compliance with the Law. The Contracting Party shall comply with all laws and regulations applicable to the development project and to contracts for work done to carry it out.

(b) Compliance with Application. Unless otherwise agreed to in writing by the Administrator, the project shall be carried out according to the plans and proposals submitted by the Contracting Party in, or in connection with, its application for assistance for the project.

(c) Installment Payments. Assistance provided by this contract for development may be remitted to the Contracting Party in installments, after receipt of billings, and upon satisfactory proof of completion of each stage of construction or development. Determination of appropriate stages for installment payments shall be made by the Administrator, after consultation with the Contracting Party and with the approval of the Bureau of Outdoor Recreation, if United States Land and Water Conservation Funds are involved. Installment payments shall in no event be made more frequently than monthly. An amount equal to 10% of the funding assistance provided the Contracting Party by this contract for eligible development costs may be withheld until final inspection and certification of project completion is made by the Interagency Committee and approved by the Bureau of Outdoor Recreation.

(d) Contracts for Construction. Contracts for construction shall be awarded through a process of competitive bidding if required by state law. Copies of all bids and contracts awarded shall be retained for inspection by the Administrator upon request. Where all bids are substantially in excess of project estimates, the Administrator may, by notice in writing, suspend the project and refer the matter to the Interagency Committee for determination of appropriate action, which may include termination of assistance for development of the project.

(e) Change Orders. Any change orders shall be in writing and shall be made a part of the project file and kept available for inspection or audit upon request.

(f) Nondiscrimination Clauses. Except where a non-discrimination clause required by the United States is used, the Contracting Party shall insert the following nondiscrimination clause in each contract for construction of this project:

"During the performance of this contract, the Contractor agrees as follows:

(1) The Contractor will not discriminate against any employee or applicant for employment because of race, creed, color, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, creed, color, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting officer setting forth the provisions of this nondiscrimination clause.

(2) The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, creed, color, sex, or national origin.

(3) The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the said labor union or workers' representative of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.

(4) The Contractor will include the provisions of the foregoing paragraphs in every sub-contract exceeding $5,000, so that such provisions will be binding upon each such subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Interagency Committee may direct as a means of enforcing such provisions, including sanctions for noncompliance; Provided, however, that in the event the Contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction by the contracting agency, the Contractor may request the State of Washington to enter into such litigation to protect its interests."

21. Notices: All notices, demands, requests, consents, approvals, and other communications which may or are required to be given by either party to the other under this agreement shall be in writing and shall be deemed to have been sufficiently given for all purposes when delivered or mailed by first class postage or certified mail, postage prepaid, addressed as follows:

(a) Notice to the State

To: Interagency Committee for Outdoor Recreation
4800 Capitol Boulevard
Tumwater, Washington 98504

or at such address as the Interagency Committee shall have furnished to the Contracting Party in writing.

(b) Notice to the Contracting Party

To Rich Costello, who serves in the capacity of Project Manager for the Contracting Party, and who has been designated as the Contracting Party's liaison officer for the purposes of this agreement, or to such other officer or address as the Contracting Party shall have furnished to the Administrator in writing.

22. Additional Provisions, or modifications of Standard Provisions

ATTACHMENT "A"

A parcel of land situated in Government Lots 2 and 3 of Section 17, Township 33 North, Range 14 West, W.M., Clallam County, Washington, more particularly bounded and defined as follows, to wit:

Beginning at a point marked by one and one-half inch iron pipe placed in Government Lot 3 of Section 17, Township 33 North, Range 14 West, W.M., Clallam County, Washington, which point of beginning is north 240.0 feet and east 1,919.5 feet from the southwest corner of said Section 17; thence north 82°23' West 399.1 feet to a point marked by an iron pipe; thence north 77°51' West 99.8 feet to a point marked by an iron pipe; thence North 68°52' West 99.8 feet to a point marked by an iron pipe; thence North 57°50' West 99.9 feet to a point marked by an iron pipe; thence North 40°59' West 184.8 feet to a point marked by an iron pipe; thence North 85.4 feet to a point on the center line of the right of way of State Highway No. 9-A; thence North 91.7 feet to the point of intersection of the center line of Snow Creek with the easterly boundary of the right of way of said State Highway No. 9-A; thence northerly and northeasterly, tracing the easterly and southeasterly boundary of the right of way of said State Highway No. 9-A, said boundary being 30 feet distant from the center line of said right of way as follows:

North 0°59' West 23.4 feet, North 10°45' East 50.1 feet, North 24°01' East 50.1 feet, North 38°31' East 50.1 feet, North 54°30' East 50.1 feet North 68°27' East 50.1 feet, North 63°26' East 50.1 feet and North 45°00' East 50.1 feet to a point marked by an iron pipe set on said right of way boundary; thence leaving said right of way boundary and continuing North 89°53' East 73.0 feet to a point marked by an iron pipe set on the approximate government meander line of the Strait of Juan de Fuca; thence southeasterly, tracing the approximate meander line, as follows:

South 11°05' West 69.2 feet to a point marked by an iron pipe, South 38°14' East 223.0 feet to a point marked by an iron pipe, north 78°45' East 170.3 feet and south 54°40' East 42.0 feet; thence leaving said approximate meander line and continuing south 21°08' East 113.0 feet to a point on the center line of the right of way of said State Highway No. 9-A; thence south 21°08' East 36.7 feet to a point marked by an iron pipe set on the southerly boundary of the right of way of said Highway No. 9-A; thence south 21°08' East 208.3 feet to a point marked by an iron pipe; thence south 11°08' East 180.1 feet to the point of beginning. Except therefrom, however, that portion thereof lying and being within the boundaries of the right of way of said State Highway No. 9-A;

Together with grantor's rights in those certain second-class tidelands and the bed of the Straits of Juan de Fuca being more particularly described in that Certain Lease Numbered 9952 between the grantors herein and the Department of Natural Resources.

Tab K
Recreation and Conservation Office Contract

Strange, Justine (RCO)

From:	RCO-Director (RCO)
Sent:	Wednesday, December 6, 2017 1:22 PM
To:	Director (DFW)
Cc:	Stohr, Joseph S (DFW); Team Spokane (DFW); Team Ephrata (DFW); Team Yakima (DFW); Team MillCreek (DFW); Team Ridgefield (DFW); Team Montesano (DFW); Wilkerson, Cynthia R (DFW); Wildthing (DFW); Sandberg, Julie C (DFW); Kane, Elyse A (DFW); Dehart, Michael D (DFW); Belson, Shane S (DFW)
Subject:	Long-term Obligations for Grants from the Washington State Recreation and Conservation Office
Attachments:	WDFW Eastern Region 1.pdf; WDFW North Central Region 2.pdf; WDFW South Central Region 3.pdf; WDFW North Puget Sound Region 4.pdf; WDFW Southwest Region 5.pdf; WDFW Coastal Region 6.pdf; WDFW Projects Statewide.pdf; RCO Long-term Obligations.pdf

Natural Resources Building
P.O. Box 40917
Olympia, WA 98504-0917

1111 Washington St. S.E.
Olympia, WA 98501

(360) 902-3000
TTY: (360) 902-1996
Fax: (360) 902-3026

E-mail: Info@rco.wa.gov
Web site: www.rco.wa.gov

STATE OF WASHINGTON

RECREATION AND CONSERVATION OFFICE

VIA EMAIL

December 6, 2017

TO: **Jim Unsworth, Director**
Washington Department of Fish and Wildlife

CC: Joe Stohr, Deputy Director
Steve Pozzanghera, Regional Director – Eastern Region 1
Jim Brown, Regional Director – North Central Region 2
Mike Livingston, Regional Director – South Central Region3
Bob Everitt, Regional Director – North Puget Sound Region4
John Long, Regional Director – Southwestern Region 5
Larry Phillips, Regional Director – Coastal Region 6
Cynthia Wilkerson, Lands Division Manager
Julie Sandberg, Wildlife Real Estate Manager
Elyse Kane, Lands Division – Property Management Supervisor
Mike DeHart, Access Area Manager
Shane Belson, Statewide Water Access Program

FROM: Kaleen Cottingham, Director
Washington State Recreation and Conservation Office

RE: Long-term Obligations for Grants from the Washington State Recreation and Conservation Office (formerly the Interagency Committee for Outdoor Recreation, IAC)

Since 1964, the Washington State Recreation and Conservation Office (RCO) has awarded grants to state agencies, counties, cities, special purpose districts, and non-profit organizations for parks, open space, farmland, critical habitat for wildlife, trails, boating facilities, and other recreation and conservation projects.

As one of the original members of the Governor's Interagency Committee for Outdoor Recreation (IAC), our decades-long partnership with the Washington State Department of Fish and Wildlife (WDFW) continues with your ongoing service on RCO's funding boards. Additionally, WDFW has received over 500 grants from nearly all of the funding programs administered by the RCO.

A grant award comes with a long-term obligation for your agency to maintain the project area as originally funded. Attached is a fact sheet that provides some basic information about RCO grant obligations. It is your responsibility to know your project areas that are protected with RCO grant restrictions and to manage them accordingly. Additional information on long-term obligations may be found on our Web site (http://www.rco.wa.gov/grants/long_term_obligations.shtml).

RCO conducts periodic inspections of its funded projects to ensure the long-term obligations are maintained. You will receive an inspection report when this occurs. RCO grants staff also may contact your agency if any issues arise from the inspection. Some common issues that we find in our inspections include a change in the use of the project area from what was originally funded by the grant, a transfer or sale of the project area to another organization, or lack of site management.

Failure to comply with long-term obligations for an RCO grant has certain consequences for WDFW to provide replacement for the loss of grant-assisted land or facilities. This may require the appraisal of the property and the purchase of similar replacement property or development of replacement facilities equal to the grant expended. It also may jeopardize future RCO grant funding for your agency.

We appreciate the past work your staff have done in being proactive and notifying us of potential issues. We encourage you to continue to contact us as problems arise so that we can address them together.

This notice includes a list of the WDFW development and restoration projects that have long-term obligations. A subsequent notice on the over 230 acquisition projects will be sent to you next year.
You may access information about each specific project by clicking on the link in the first column, which will take you to RCO's Project Snapshot.

Please share this letter with your staff who manage the project areas that have received RCO grants. For more information on RCO grant obligations, please contact Myra Barker, Compliance Specialist, at RCOStewardship@rco.wa.gov or call (360) 902-2976. RCO looks forward to continuing our work to protect and steward the state's investment in parks and other recreational amenities, open space, farmland, and wildlife habitat.

Information on RCO's current grant funding opportunities can be found on our Web site. I encourage you to consider applying for grants to expand or improve project areas that have received RCO funding in the past.

Kaleen Cottingham / Director / Recreation and Conservation Office / 360.902.3000 TDD (360) 902-1996

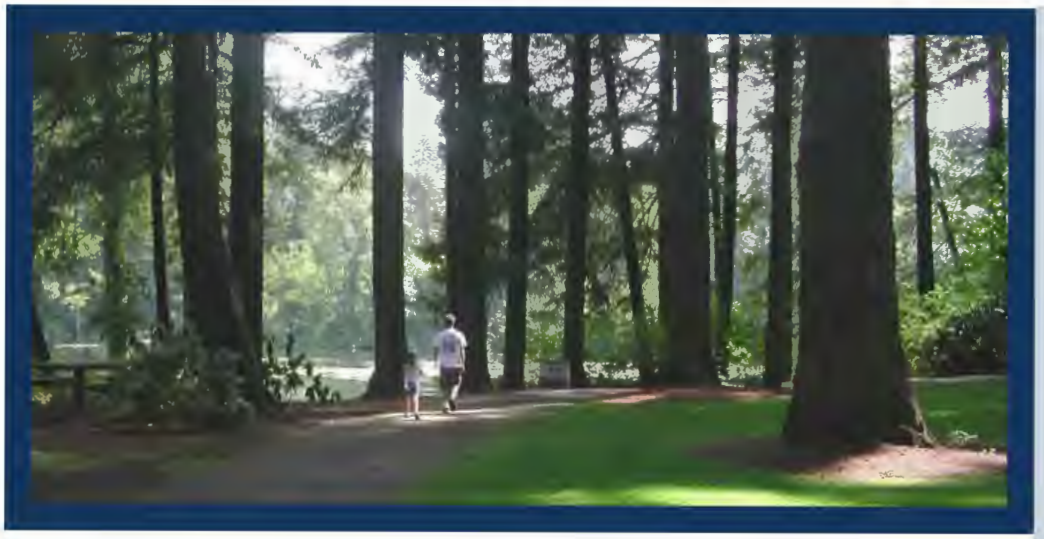
WASHINGTON STATE Recreation and Conservation Office

Grants with Long-term Obligations
WDFW Coastal Region 6
(Development and Restoration)

Project Number and Project	Project Name	Grant Program
77-801D	Sol Duc Hatchery Tour	Bonds
79-801D	Blake Island Angler's Reef	Land and Water Conservation Fund
80-602D	Scatter Creek WRA 80	Bonds
80-802D	Point Defiance Boat Launch Expansion	Boating Facilities Program, State Agency Category
80-803D	Sol Duc Hatchery Boat Basin	Boating Facilities Program, State Agency Category
81-601D	Humptulips River - Morley	Boating Facilities Program, State Agency Category
81-603D	Chambers Lake Access Area	Boating Facilities Program, State Agency Category
81-801D	Ruston Way Public Fishing Pier	Land and Water Conservation Fund
82-800D	Westport Marina Walkways	Land and Water Conservation Fund
82-802D	Boston Harbor Boat Launch	Boating Facilities Program, State Agency Category
83-801D	Bywater Bay Beach Enhancement	Bonds
83-802D	Frye Cove Beach Enhancement	Bonds
83-803D	Pillar Point Redevelopment	Boating Facilities Program, State Agency Category
83-9800D	Hood Canal Bridge Fishing Access	Bonds
84-603D	Munn Lake Redevelopment	Land and Water Conservation Fund
85-802D	Snow Creek Renovation	Land and Water Conservation Fund
89-034D	Nisqually Estuary Exhibit	Aquatic Lands Enhancement Account

Long-Term Grant Responsibilities

WASHINGTON STATE Recreation and Conservation Office



Long-Term Obligations

Grant recipients have long-term obligations for land purchased, developed, or restored with RCO grants. When an element of the project no longer meets the terms in the grant contract or the site no longer meets the original function of the grant, the grant recipient must check with RCO about resolving the issue.

These responsibilities are described primarily in the project agreement and RCO's *Manual 7 Long-Term Obligations*. RCO and the grant recipient must inspect funded sites to ensure these obligations are upheld.

Types of Changes

There are two ways a site or structure may no longer meet the terms of the contract or the original function of the grant: Element change or conversion.

Element Change

- Minor element changes do not conform to the project agreement but have no negative impact on the recreational opportunity. Example: A 15-car parking lot funded in 1995 is reduced to an 11-car lot to make room for a new park feature.
- Major element changes do not conform to the project agreement and negatively affect, but do not eliminate the recreational opportunity. Example: A tennis court funded in 1995 has been turned into a skate park.
- Exceptions include acts of extraordinary vandalism or arson, acts of nature such as floods or earthquake, and obsolescence (structure past its useful life).

Remedy

May require an amendment to the project agreement, approval from the Recreation and Conservation Funding Board or Salmon Recovery Funding Board, or remediation.

Conversion

A conversion occurs when:

- All or part of the property is conveyed for an ineligible use, or to an ineligible third party.
- Public or private uses impair the original purpose of the grant.
- Non-eligible, indoor facilities are constructed.
- Public use is terminated for more than 180 consecutive days.

Remedy

If RCO assisted with acquiring the site, it must be replaced with new property of equal utility and market value in today's dollars. If RCO assisted with development or restoration of the site, it must be replaced with new facilities or restoration of equal function.

Long-term Obligations

- Maintain the funded site and structures as originally funded.
- For recreation projects, maintain public outdoor recreation opportunities in a safe and attractive manner and at reasonable hours and times of the year.
- For habitat projects, manage and maintain the habitat values or functions.

Please Contact RCO

before you significantly alter a grant-funded site or facility to see if your plans are compatible with the project agreement and RCO policies.

Recreation and Conservation Office (RCO)
www.rco.wa.gov
E-mail: RCO MI Stewardship @rco.wa.gov
Telephone: (360) 902-3000
TDD: (360) 902-1996

Tab L
Land Use Agreements

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

CONCESSION AGREEMENT
(Snow Creek)

THIS AGREEMENT is entered this 6th day of November, 1997, by the **STATE OF WASHINGTON,** acting through the **DEPARTMENT OF FISH AND WILDLIFE,** hereinafter referred to as **"WDFW"**, and by **ROY BOOTHE,** Post Office Box 205, Beaver, Washington, 98305, hereinafter referred to as **"Concessionaire".**

1. **PURPOSE:** The purpose of this agreement is to establish the basis for and the obligation of the Concessionaire to provide, from a WDFW-owned facility, hereinafter referred to as the PREMISES and described under paragraph 4 below, all necessary labor, equipment and supplies to operate and maintain a fishing camp and related outdoor recreation services and activities.

2. **SERVICES TO BE PROVIDED BY CONCESSIONAIRE:** During the term of this Concession Agreement, Concessionaire will provide all necessary labor, equipment, and supplies to operate and maintain the present level of the Snow Creek Resort. As a minimum, necessary services and supplies include the provision of boat launching and retrieval, campsite and overnight moorage rental, ice/fish storage, bait/fishing tackle, fishing licenses, and subsistence level of food, beverage and personal items for sale to the public at reasonable prices. The Concessionaire may also provide other goods and services for sale or rent to the public, which goods and services and prices shall be reviewed each year by WDFW and shall be subject to WDFW's approval.

3. **TERM:** This Agreement shall commence upon its execution and terminate on December 31, 2007 at which time WDFW has the option to cancel, renew on same or different terms, or put this concession out for competitive bid. This Agreement may be terminated earlier under the provisions hereof.

4. **DESCRIPTION AND USE OF THE PREMISES:** The Concessionaire shall accomplish the purposes of this Agreement from the Premises located as shown on Exhibit "A" attached hereto and made a part hereof.

5. **MERCHANDISING:** On or before April 1, of each year of this agreement the Concessionaire shall submit to WDFW, complete lists of the nature, type and sales price of all merchandise and services to be offered to the public under this agreement. The lists are to be submitted to the Department of Fish and Wildlife, 600 Capitol Way North, Olympia, WA 98501-1091. WDFW reserves the right to disapprove the type and/or price of any merchandise or services to be offered. No merchandising of previously disapproved merchandise or services or at previously disapproved prices shall be allowed unless and until approval is obtained from WDFW. Prices shall be posted in a conspicuous place on the Premises. Sales or rental of boats and flotation devices not approved by the U.S. Coast Guard are prohibited. The sale of alcoholic beverages or firearms will not be permitted.

6. **FEES AND LEASEHOLD EXCISE TAXES:** During the term of this Agreement, the Concessionaire shall pay an annual fee to WDFW calculated on the basis of the gross revenue realized during the term of this agreement from the retail sales and rentals authorized in Paragraph 2 above. Gross revenue shall not include money collected for state and local sales taxes. Fees for the first five years of this agreement shall be calculated by reference to the following schedule. The fees payable to WDFW during the second five years of this agreement may be renegotiated.

6. **CONTINUED:**

IF GROSS	BUT NOT	FEE	PLUS	OF THE AMOUNT OVER
$ -0-	$ 5,000.	$ 50.	-0-	$ -- -- -- -- -- --
5,000.	10,000.	50.	+3%	5,000.
10,000.	15,000.	200.	+4%	10,000.
15,000.	25,000.	400.	+5%	15,000.
25,000 or more		900.	+6%	25,000.

Concessionaire's annual fee payment and leasehold excise tax payment shall be due and payable on or before January 31st of the year following the year in which the concession revenue was received. Fees and leasehold excise tax payments shall be paid by check or money order made payable to the Washington Department of Fish and Wildlife, 600 Capitol Way North, Olympia, WA 98501-1091, Attn.: Real Estate Services. Concessionaire shall pay an additional ten ($10) dollar fee for any check returned by the bank as unpayable for any reason.

7. **INTEREST CHARGES:** Notwithstanding WDFW's right to terminate this agreement for nonpayment of the fees, the Concessionaire shall pay interest at the rate of one percent (1%) per month on any delinquent fee balance.

8. **LEASEHOLD EXCISE TAX:** The Concessionaire shall pay to WDFW the leasehold excise tax as set forth in 82.29A RCW (copy attached as Exhibit "C") as now or hereafter amended. Said taxes shall be stated and remitted separately from fees required under paragraph 5, above. The taxes are due and payable at the same time as the fees charged herein. Taxes shall be paid by check or money order made payable to the Department of Fish and Wildlife, 600 Capitol Way North, Olympia, WA 98501-1091. The Concessionaire shall, in like manner, pay any interest or penalty charges assessed by the Washington State Department of Revenue on late tax payments, and shall also pay an additional ten dollar ($10) fee for any tax payment check which is returned by the bank as unpayable for any reason.

9. **CONCESSION RECORDS:** The Concessionaire shall submit a statement of gross revenue from the concession operation with each fee payment. A true account of all receipts and disbursements shall be maintained by the Concessionaire and shall be made available to WDFW upon request. The Concessionaire shall submit a profit and loss statement to WDFW with each fee payment. In addition, the Concessionaire shall submit to WDFW a copy of Concessionaire's Excise Tax Return when filed with the Department of Revenue. WDFW reserves the right to review and audit the Concessionaire's records at the discretion of WDFW.

10. **LIABILITY INSURANCE:** During the entire term of this agreement, the Concessionaire shall keep in force a policy of bodily injury and property damage liability insurance acceptable to WDFW, naming WDFW as an additional named insured against any liability arising out of the use, occupancy, or maintenance of the premises and all areas appurtenant thereto. Such insurance policy shall be in an amount of not less than $1,000,000 per occurrence, combined single limit. A certificate evidencing said coverage shall be provided to WDFW. The amount of the insurance required may hereafter be increased or decreased by written agreement of the parties or by Legislative enactment effective subsequent to the effective date of this agreement. All policies shall carry a 30-day notification of cancellation clause or a material change in coverage clause.

11. **FIRE INSURANCE:** During the entire term of the agreement, the Concessionaire shall keep in force an insurance policy for fire and casualty. The insurance shall be a fire and legal liability policy in the amount of not less than $50,000 naming WDFW as primary beneficiary. Concessionaire may be named as secondary beneficiary. A certificate evidencing such insurance shall be provided to WDFW. The amount of insurance required may hereafter be increased or decreased at the option of WDFW, and limits may be reviewed by the parties at Concessionaire's request. All policies shall carry a 30-day notification of cancellation clause.

12. **ACCESS:** WDFW shall at all times during the term of this agreement have the right to enter the premises for the purpose of monitoring compliance with the provisions of this agreement, or for any other purpose related to concession operation. The Concessionaire shall, without charge, allow daytime public access to the beach area to the extent that other operations on the premises may continue reasonably unaffected.

13. **UTILITIES:** The Concessionaire shall pay all charges appurtenant to the use of the premises, including all charges and assessments for utility services. Concessionaire waives any claim against WDFW for any interruption of utility services.

14. **RECYCLING AND GARBAGE DISPOSAL:** The Concessionaire will use recyclable food and beverage containers whenever possible, and shall recycle used materials whenever possible. The Concessionaire shall recycle used materials whenever possible. The Concessionaire shall be responsible for removal and disposal of all garbage and refuse generated by the Concessionaire in preparation of food, goods and services for sale to the public.

15. **REPAIR, MODIFICATION AND IMPROVEMENT:** Concessionaire shall, at no expense to WDFW, make any and all modifications or improvements to facilitate authorized uses of the premises; PROVIDED, that if the cost of said improvement is likely to exceed $5,000, written approval must first be obtained from WDFW. Such approval may be conditioned or limited as deemed necessary or appropriate by WDFW. In making any modification of or improvement to the premises, the Concessionaire shall be responsible for obtaining all required licenses or permits, and shall comply with all applicable laws, codes, rules and regulations. All such modifications or improvements shall become the property of WDFW upon termination of this agreement unless specifically exempted by written agreement of WDFW and Concessionaire.

    During the term of this agreement, concessionaire will use his best efforts to create six (6) self-contained R/V spaces and enlarge the boat hoist.

16. **WDFW'S MODIFICATION/IMPROVEMENT OF THE PREMISES:** WDFW may at any time, at its discretion and expense, make any and all improvements to or modifications of the premises which it deems necessary or desirable to protect and serve users of the premises. To the extent it is possible and advisable, WDFW will attempt to schedule its work during off-season weeks. The Concessionaire shall not hold WDFW liable for any loss of income suffered or allegedly suffered by the Concessionaire due to the interruption of the Concessionaire's operation from improvement to or modification of the premises.

    During the term of this Agreement, WDFW will use its best efforts to secure funding to replace the blacktop and add a second ramp and floats.

17. **MAINTENANCE AND REPAIR:** The Concessionaire shall perform any and all maintenance and repair to keep the premises in a safe, sanitary condition in compliance with all applicable local, state and federal government health and safety standards. Septic waste is disposed of on the premises via septic tank (s) and drain fields (s). The Concessionaire shall have said tanks pumped not less than twice each year. Additionally, Concessionaire will repair the blacktop.

18. **WDFW'S WATER SYSTEM:** Concessionaire shall, as directed by WDFW, perform all routine maintenance of WDFW's water system. Concessionaire shall advise WDFW in timely manner of any unusual circumstances or occurrences surrounding the operation of the water system. Upon notice, WDFW shall take responsibility for initiating any repairs.

19. **CONCESSIONAIRE'S SERVICE AND PERSONNEL:** The Concessionaire shall operate the concession in a businesslike manner and strive to provide quality service to visitors. The Concessionaire and employees of the Concessionaire must be courteous and qualified in the performance of all services offered.

20. **CONCESSIONAIRE NOT AN EMPLOYEE OF WDFW:** The Concessionaire and its employees or agents performing under the Concession Agreement are not employees or agents of WDFW. The Concessionaire and its employees shall not hold themselves out as nor claim to be officers or employees of WDFW or the State of Washington by reason hereof, nor will they make any claim or right, privilege or benefit which would accrue to a civil service employee under state law.

21. **INDUSTRIAL INSURANCE COVERAGE:** The Concessionaire shall provide or purchase industrial insurance coverage prior to performing work under this agreement. WDFW will not be responsible for payment of industrial insurance premiums or for any other claim or benefit for the concessionaire, or any subcontractor or employee of the Concessionaire, which might arise under the industrial insurance laws during performance of duties and services under this agreement.

22. **ANTI-DISCRIMINATION:**The Concessionaire shall not discriminate on the basis of race, color, residence, religion, national origin, sex, or age (unless for bona fide occupational reasons) in the solicitation of applicants for employment, the hiring of employees, and the treatment of employees. The Concessionaire shall not discriminate on the basis of race color, religion, residence, national origin, sex, or age in the dispensing of services and goods to the public. The offering of goods and services to the public shall be made on a first come, first-served basis.

23. **ADVERTISEMENT:** In any promotional or publicity materials, the Concessionaire shall include a credit line indicating that the operation is a concession of the State of Washington, Department of Fish and Wildlife. No signing shall be placed on the premises by the Concessionaire without the prior written approval of WDFW. It shall also be the responsibility of the Concessionaire to maintain a sign provided by WDFW indicating the roles of State and Federal agencies participating in the acquisition and/or development of the premises.

24. **LICENSES AND PERMITS:** The Concessionaire shall obtain and be in possession of all licenses or permits required by any public authority having jurisdiction over the Concessionaire's operations. Said licenses and permits shall be openly displayed as required.

25. **CONCESSIONAIRE'S PROPERTY:** All equipment and personal property supplied by the Concessionaire shall remain the property of the Concessionaire and shall be removed from the premises within sixty (60) days following terminating of the agreement or when so directed by WDFW. All such equipment and personal property remaining on the premises following said period shall become the property of WDFW at its option. Such equipment and personal property shall not include improvements to or modifications of the premises as set forth in Paragraph 15, above.

26. **INDEMNITY:** The Concessionaire shall hold harmless the State of Washington, WDFW, its officers, agents, employees and assigns against any and all losses arising out of the Concessionaire's use of the premises. The Concessionaire further waives the right to recovery against WDFW from loss, damage or injury to the premises and any equipment or personal property therein caused by any act of God, or caused by fire, explosion or water damage, except due to the negligence of WDFW.

27. **FISHING SEASON:** The Concessionaire shall waive any claim against WDFW for any losses suffered or allegedly suffered due to the closure of fishing in any waters on or adjacent to the premises for any reason.

28. **ENTIRE AGREEMENT/MODIFICATION OF AGREEMENT:** This agreement consists of 5 pages plus Exhibit "A", for a total of 6 Pages and is the entire agreement of the parties. This agreement may not be modified or amended without the mutual written agreement of the parties hereto.

29. **ASSIGNMENT:** This agreement may not be assigned in whole or in part without the prior written approval of WDFW. WDFW shall be provided with such background information as it deems necessary in order to evaluate the acceptability of any proposed assignee. In any event, WDFW reserves the right to deny or condition approval of any assignment for any reason. In the event this agreement is assigned to a third party, Roy Boothe specifically agrees to consult with the assignee with respect to the operation of this concession for three (3) years following assignment.

30. **TERMINATION:** This agreement shall terminate at the end of the term as specified in Paragraph 3, above, or earlier upon mutual written consent of WDFW and the Concessionaire. This agreement may also be terminated at any time upon thirty (30) days written notice by WDFW to the Concessionaire in the event the Concessionaire violates any of the provisions of this agreement, defaults in the performance of any obligation hereunder, is convicted of any offense which in the judgment of WDFW discredits the State of Washington or is detractory to public relations with the Concessionaire or public use of the premises. For the purposes of this section, it shall be deemed an obligation of this agreement that the concessionaire comply with all applicable laws, codes, rules, regulations and WDFW policies pertaining to the Concessionaire's use of the premises or performance hereunder.

31. **GOVERNING LAW:** The concession agreement shall be governed by the laws of the State of Washington. In the event of a lawsuit involving the concession agreement, venue shall be proper only in Thurston County. The Concessionaire, upon execution of the concession agreement, acknowledges the jurisdiction of the courts of the State of Washington in this matter.

State of Washington, Department of Fish and Wildlife

11-6-97
Date

Elyse Axell Kane
Elyse Axell Kane, Assistant Director

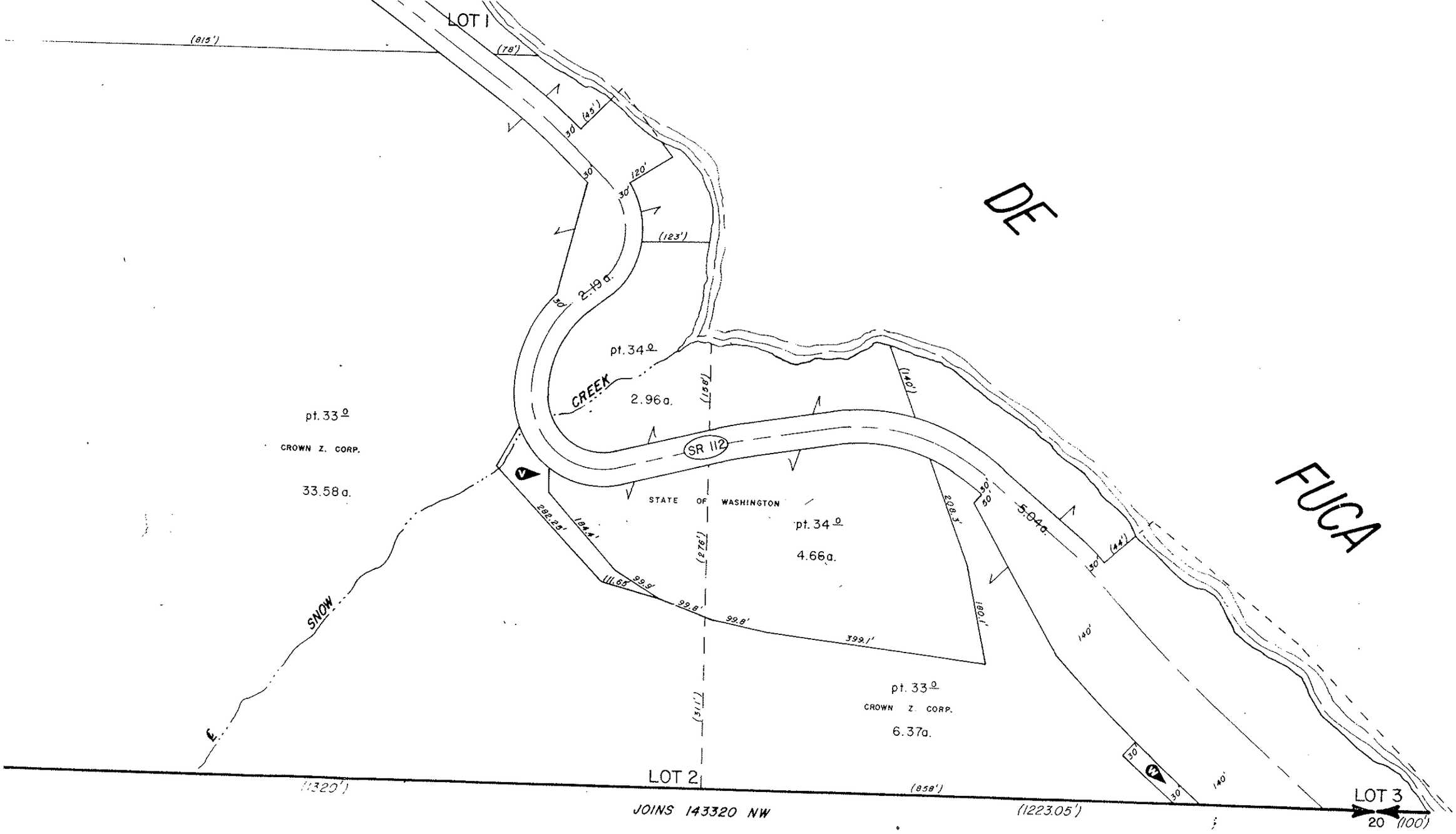
10-23-97
Date

Roy Boothe
Roy Boothe, Concessionaire

Approved PRO Date 11/3/97
Regional Lands Program Coordinator

Approved DJR Date 11/3/97
Regional Director

RTE10/2/97


LOT 1
(815')
(78')
30'
(45')
30'
120'
30'
(123')
2.19 a.
pt. 34
CREEK
2.96a.
(857')
(140')
pt. 33
CROWN Z. CORP.
33.58 a.
SR 112
STATE OF WASHINGTON
pt. 34
4.66a.
292.25'
184.4'
111.65'
99.8'
99.8'
99.8'
399.1'
(276')
208.3'
180.1'
50'
50'
5.94a.
30'
(44')
140'
SNOW
pt. 33
CROWN Z. CORP.
6.37a.
(31')
30'
30'
140'
LOT 2
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(858')
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JOINS 143320 NW
LOT 3
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(100')
DE
FUCA

After Signature Return To:
Washington Dept. of Fish and Wildlife
Real Estate Services
600 Capitol Way North
Olympia, WA 98501-1091
attn: Elyse Kane

Document Title: Land Use Agreement
Grantor: Washington Department of Fish and Wildlife
Grantees: Craig Atwood and Jake Peters DBA "Atwood Peters"
Agency File No.: 220031
Legal Description: Portion of S½SW¼ Sec. 17, T33N, R14W, W.M.

LAND USE AGREEMENT
SNOW CREEK RESORT

THIS AGREEMENT is entered into this 24th day of June, 2008, by and between **THE STATE OF WASHINGTON, DEPARTMENT OF FISH AND WILDLIFE** (hereinafter "WDFW") and **CRAIG ATWOOD AND JAKE PETERS**, individuals doing business as Atwood Peters, whose address is PO Box 248, Neah Bay WA 98357, (hereinafter "Grantees"). Pursuant to the authority granted in the Revised Code of Washington at 77.12.210 and subject to the terms and conditions set forth herein. WDFW hereby grants to Grantees the exclusive right to use the following described lands known as the Snow Creek Resort (hereinafter "the Premises") in the County of Clallam, State of Washington, to wit:

TOWNSHIP 33 NORTH, RANGE 14 WEST, W.M.

Section 17: that certain property in the South half of the Southwest quarter of Section 17 known as the "Snow Creek Resort" and owned by the Washington Department of Fish and Wildlife, as described in Attachment A.

THIS AGREEMENT IS GRANTED SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

SECTION 1
OCCUPANCY

1.01 Term. The term of this agreement shall commence on the date of WDFW signature below and expire on December 31, 2012.

1.02 Permitted Use. WDFW hereby grants to Grantees the right to operate a fishing camp on the Premises called "Snow Creek Resort". No other use of the Premises is permitted. During all lawful fishing seasons, Grantees shall provide all necessary labor, equipment, and supplies to operate a fishing camp, including, at a minimum, the provision of boat launching and retrieval, campsite and overnight moorage rental, ice/fish storage, bait/fishing tackle, fishing licenses, and a subsistence level of food and drinking water for sale to the public at reasonable prices. Grantees also may provide other goods and services for sale or rent to the public at a fair market rate, subject to WDFW's review and approval, which approval shall not be unreasonably withheld.

1.03 Residency. Due to the remoteness of the site, Grantees and their immediate families shall be entitled to reside at the Premises. Grantees shall not permit others to reside at the Premises for more than thirty (30) days per calendar year without prior written approval from WDFW.

1.04 No Human Transport on Marine Railway. The marine railway shall never be used to transport children or adults.

1.05 Prohibited Merchandise. The sale and rental of boats and flotation devices not approved by the U.S. Coast Guard are prohibited. The sales of alcoholic beverages and firearms are prohibited.

1.06 Fishing Season Closures. In the event of a fishing season closure, Grantees shall post the Premises with signs to inform the public. Grantees hereby waive any and all claims against WDFW for losses due to fishing season closures.

1.07 No Warranty. This agreement is granted without warranty, either express or implied, regarding the condition, state of repair, or utility of the Premises. WDFW shall not be subject to any liability whatsoever on account of any shortage or defect in any part of the Premises. Grantees acknowledge that they have investigated the Premises and are satisfied with it and accept it "as is" in its current condition including, but not limited to, all facilities and the physical site.

1.08 Limited Rights. No provision of this agreement is intended nor shall be deemed to transfer any real property from WDFW to Grantees. WDFW permits only those rights and privileges set forth in this agreement during the term hereof. WDFW retains jurisdiction over its property in all other respects. WDFW reserves the right to grant easements or leases on, under, or above the Premises, PROVIDED THAT said easement or lease is not inconsistent with the permitted use of this agreement. WDFW reserves the right to any trees, minerals, or any other valuable materials in the Premises. Grantees shall not remove trees, minerals, or any other valuable material from the Premises without the prior written approval of WDFW.

1.09 No Assignment. Neither this agreement, nor the rights, benefits and obligations set forth herein, may be assigned or sublet by Grantees in whole or in part without the prior express written consent of WDFW.

1.10 WDFW Access. WDFW retains the right of access to the Premises at all times.

SECTION 2
IMPROVEMENTS

2.01 Improvements. Grantees may construct or place improvements on the Premises, PROVIDED THAT they receive the prior express written consent of WDFW and are made at Grantees' sole cost.

2.02 Plan and Schedule. Prior to the commencement of new construction or expansion of existing improvements, Grantees shall provide WDFW with a detailed construction plan and schedule for WDFW's review and approval, denial or modification.

2.03 Compliance with Laws. Grantees are responsible, at their sole cost, to cause all work on the Premises during the term of this agreement to be performed in accordance with all applicable laws, codes, and requirements of those governmental agencies having jurisdiction. Grantees shall supply copies of all permits and other approvals to WDFW immediately upon receipt.

2.04 No Liens. Grantees may not suffer or permit any lien for work, labor, services, materials, or any other reason to be filed against the Premises.

2.05 Liability for Improvements. Grantees shall indemnify, defend, and hold harmless WDFW from and against all governmental penalties and from all claims of property damage and personal injury by whomsoever made and of any nature whatsoever that arise out of improvements constructed or placed on the Premises by Grantees.

2.06 WDFW's Improvements. WDFW, in its sole discretion, may make improvements to, or modifications of, the Premises to protect and serve the users of the Premises. To the extent possible, WDFW shall schedule its work during the off-season.

SECTION 3
OPERATION AND MAINTENANCE

3.01 Maintenance and Repair. Grantees shall, at their sole cost and expense, keep and maintain the entire Premises and all utilities, improvements, and facilities thereon (regardless of ownership) in good order and repair, in a clean, safe, sanitary, and attractive condition. Grantees shall gravel the interior roads of the Premises as necessary to keep them in good order and repair. Grantees shall have the septic tank(s) pumped not less than twice each year. Grantees shall correct any repair and maintenance deficiencies identified by WDFW within fifteen (15) days of written notice or as otherwise specified by WDFW in writing.

3.02 Utility Charges. Grantees are responsible, at their sole cost, for all utility service to the Premises. Grantees shall be responsible for all costs, and the legal storage of, propane gas used at the Premises. Grantees hereby waive any and all claims against WDFW for losses due to interruption of utility services.

3.03 Water System. Grantees shall employ a state-certified operator to operate the water system at the Premises and shall perform all routine maintenance of the water system as directed by WDFW. Grantees shall provide to WDFW, upon request, reports, certifications, and records related to the water system. Grantees shall report any problems with the water system to WDFW immediately. Grantees hereby waive any and all claims against WDFW for losses due to interruption of the water system.

3.04 Advertisements. In any promotional or publicity materials for Snow Creek Resort, Grantees shall include a credit line indicating that Snow Creek Resort is owned by the State of Washington, Department of Fish and Wildlife. Grantees shall maintain a sign provided by WDFW indicating which federal and/or state agencies participated in the acquisition and development of the site.

3.05 Hazardous Substances. Grantees shall not allow any substance that is regulated by any governmental authority as hazardous, toxic, dangerous, or harmful (hereinafter referred to as "hazardous substance"), on or around the Premises, unless the hazardous substance is necessary to carry out the permitted use of this agreement and is used in a manner that strictly complies with all applicable requirements of any and all governmental authorities. Immediately upon demand, Grantees shall reimburse WDFW for any and all cleanup costs and any and all other charges, fees, costs, fines, and penalties (civil and criminal) imposed on WDFW by any governmental authority that arise out of the presence or suspected presence of hazardous substances on or around the Premises.

3.06 Compliance with Laws. Grantees shall operate the Premises in compliance with all applicable laws, rules, regulations, and permitting requirements of WDFW and all other governmental authorities. Grantees shall supply copies of permits and other approvals to WDFW immediately upon receipt. Grantees shall not allow unlawful activities on the Premises.

SECTION 4
FEES AND TAXES

4.01 Annual Fee. On or before January 31 of each year, Grantees shall pay to WDFW an annual fee calculated as a percentage of the previous calendar year's gross revenue, as defined below. Any late payment shall be subject to an additional charge of one percent (1%) per month until fully paid. The annual fee shall be calculated as follows:

Two percent of the gross revenue, if the gross is $0 - $15,000.
Three percent of the gross revenue, if the gross is $15,000 - $25,000.
Four percent of the gross revenue, if the gross is $25,000 - $40,000.
Five percent of the gross revenue if the gross is $40,000 or more.

"Gross revenue" shall mean all revenue including, but not limited to, receipts, income, credit and value, received by or accruing to Grantees or Grantees' benefit in return for facility use, goods, services, or other consideration provided as part of any operation, activity, or facility at the Premises whether evidenced by barter, exchange, check, credit, debit, charge account or cash. "Gross revenue" shall not include sales of state hunting and fishing licenses or sales for which refunds have been made or returns accepted.

4.02 Annual Leasehold Excise Tax. Grantees shall annually pay to WDFW the amount of Leasehold Excise Tax ("LET") as required by state law. The LET amount is computed as a percentage of the annual fee set forth in section 4.01, above. [The current rate is 12.84% of the annual fee.] The LET is due and payable on January 31 for the previous calendar year's revenue and is in addition to the annual fee set forth above. The LET should be paid to WDFW by separate check.

4.03 Taxes and Assessments. Grantees shall, at their sole cost, pay all taxes attributable to Grantees' improvements on the Premises. Grantees also shall, at their sole cost, pay all governmental assessments, such as weed and storm water assessments, for the Premises.

4.04 Books of Account and Audit. Grantees shall maintain such permanent records and inventories as are sufficient to show specifically and separately the items of gross revenue, income and expense, receipts and disbursements, and such other information as will correctly reflect the financial condition and results of Grantees' operations at the Premises. Such records shall be kept available at all reasonable times for inspection by WDFW. WDFW may require an audit of the Grantees' records by a certified public accountant to ensure compliance with this agreement.

SECTION 5
INSURANCE AND LIABILITY

5.01 Insurance. During the entire term of this agreement, Grantees shall keep in force a policy of bodily injury and property damage liability insurance, which is acceptable to WDFW and names "The State of Washington, the Department of Fish and Wildlife" as an additional insured, against any liability arising out of Grantees' use, occupancy, operation, and maintenance of the Premises and all appurtenant improvements and facilities. The policy shall be in an amount not less than one million dollars ($1,000,000) per occurrence, combined single limit. During the entire term of this agreement, Grantees also shall keep in force a policy for fire and casualty insurance in an amount not less than $50,000 that names WDFW as primary beneficiary. Certificates evidencing said coverages shall be provided to WDFW. All policies shall carry a 30-day notification of cancellation clause.

5.02 No WDFW Liability. Grantees shall hold harmless WDFW, its agents and employees, from and against any and all claims arising out of Grantees' use of the Premises. Grantees further waive the right to recovery against WDFW for loss, damage or injury to persons, improvements, or personal property caused by acts of nature, fire, explosion, war, or water damage.

5.03 Damage. Grantees shall pay to WDFW, at its option, restoration costs or compensation immediately upon demand for any damage to the Premises during the term of this agreement. Grantees shall reimburse WDFW, immediately upon demand, for any fines or penalties imposed upon WDFW by any governmental authority in connection with said damage.

SECTION 6
TERMINATION AND CANCELLATION

6.01 Termination and Cancellation. This agreement shall terminate at the end of the term as specified above, or earlier upon written request of Grantees. This agreement also may be cancelled by WDFW at any time upon thirty (30) days' written notice to Grantees in the event Grantees violate any of the provisions of this agreement or make unauthorized use of the Premises. In the event of a violation or unauthorized use, WDFW shall notify Grantees in writing at the address specified above and allow Grantees twenty (20) days to correct the condition. Unless the correction is made to WDFW's satisfaction, this lease shall be cancelled on the date set forth in the notice and all rights conveyed by this agreement shall automatically revert to WDFW without necessity of further legal action. Grantees shall not be entitled to a refund of fees, taxes, or other amounts paid. Grantees' failure to comply with any of the obligations under this agreement shall be excused only if due to causes beyond Grantees' control and without the fault or negligence of Grantees, including acts of nature, war, fire, flood, epidemics, and strikes.

6.02 Surrender of the Premises. In the event of expiration or termination of this agreement, Grantees shall immediately vacate and deliver up the Premises to WDFW.

6.03 Removal of Improvements. Grantees shall have sixty (60) days after the expiration or termination of this agreement to remove their possessions as set forth in Attachment B and restore the related portions of the Premises to their original condition, except as otherwise

mutually agreed upon in writing. Any of Grantees' possessions remaining on the Premises after said time shall become the property of WDFW without further process and Grantees shall reimburse WDFW, immediately upon demand, for removal and site restoration costs related thereto.

6.04 Grantees' Rights and Obligations after Termination or Cancellation. Upon termination or cancellation of this agreement, all rights of Grantees hereunder shall cease. All obligations of Grantees under this agreement shall continue after termination or cancellation until fully performed by Grantee.

6.05 Emergency Suspension. WDFW may temporarily suspend this agreement, or the operation of one or more facilities on the Premises, during an emergency upon written notice to Grantees.

SECTION 7
GENERAL PROVISIONS

7.01 No Partnership or Employment. WDFW is not a partner nor a joint venturer with Grantees in the operation of the Premises and WDFW shall have no obligation with respect to Grantees' liabilities and debts. Grantees and their employees are not employees or agents of WDFW and shall not hold themselves out as such.

7.02 Amendments. Any revision or amendment to this agreement shall be made in writing and executed by the authorized representative of both parties.

7.03 Governing Law. This agreement shall be governed by the laws of the State of Washington. In the event of a lawsuit involving this agreement, jurisdiction and venue shall be proper only in the State of Washington, Thurston County Superior Court.

7.04 Severability. If any covenant or provision of this agreement shall be adjudged void, such adjudication shall not affect the validity, obligation, or performance of any other covenant or provision, or part thereof.

7.05 No Waiver. WDFW's forbearance to exercise its rights under this agreement in the event of any default or violation by Grantees shall not be deemed or construed to be a waiver by WDFW of its rights.

7.06 Entire Agreement. This document contains the entire agreement between the parties and no statement, promise, representation, inducement, or agreement made by either party that is not contained in this written document shall be binding or enforceable.

IN WITNESS WHEREOF, the parties hereto mutually have agreed upon the terms and conditions of this instrument and have caused it to be executed on this day as below subscribed.

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE

Jennifer Quan, Acting Lands Division Manager — Date: 6/24/08

Craig Atwood, Grantee — Date: 2-6-08

Jake Peters, Grantee — Date: 2-6-08

Attachment A: legal description
Attachment B: inventory of Grantees' improvements

After Signature Return To:
Washington Dept. of Fish and Wildlife
Region 6 Office
48 Devonshire Road
Montesano, WA 98563
Attn: Robert Cannon

Document Title: Land Use Agreement
Landowner: Washington Department of Fish and Wildlife
Operator: Craig Atwood and Jake Peters, DBA "Atwood Peters"
Agency File No.: 220031
Legal Description: Portion of S½SW¼ Sec. 17, T33N, R14W, W.M.

LAND USE AGREEMENT
SNOW CREEK RESORT

THIS AGREEMENT is entered into this 29th day of July, 2016, by and between **THE STATE OF WASHINGTON, DEPARTMENT OF FISH AND WILDLIFE** (hereinafter "WDFW") and **CRAIG ATWOOD AND JAKE PETERS**, individually and as **ATWOOD PETERS**, a general partnership registered to do business in the State of Washington, UBI 602493605, P.O. Box 2408, Forks, Washington 98331-2408 (hereinafter collectively referred to as "Operator"). Pursuant to the authority granted in the Revised Code of Washington at 77.12.210 and subject to the terms and conditions set forth herein, WDFW hereby authorizes Operator to operate and maintain the fishing camp known as Snow Creek Resort (hereinafter "the Premises") in the County of Clallam, State of Washington, more particularly described as follows:

TOWNSHIP 33 NORTH, RANGES 14 WEST, W.M.

Section 17: that certain property in the South half of the Southwest quarter of Section 17 known as the "Snow Creek Resort" and owned by the Washington Department of Fish and Wildlife, as further described in Exhibit A.

THIS AGREEMENT IS GRANTED SUBJECT TO THE FOLLOWING TERMS AND CONDITIONS:

SECTION 1
USE OF PREMISES

1.01 Term. The term of this agreement shall commence on the date of the WDFW signature below and expires on December 31, 2016.

1.02 Permitted Use. WDFW hereby authorizes Operator to operate and maintain the Premises as a fishing camp during lawful fishing seasons. By this agreement, Operator agrees to provide safe launching, overnight moorage, camping sites and services, ice/fish storage, bait/fishing tackle, and a subsistence level of food and drinking water at a reasonable cost to the public. No other use of the Premises is permitted. Operator also may sell or rent other goods and services at a fair market rate, provided they are related to the Permitted Use and receive WDFW's prior review and approval, which approval shall not be unreasonably withheld.

1.03 Residency. Due to the remoteness of the site, Operator and Operator's immediate family and employees shall be entitled to reside at the Premises during the periods of time the Resort is open for business, or while preparing to open the Resort or preparing for off season closure of the Resort. Operator shall not permit others to reside at the Premises for more than thirty (30) days per calendar year without prior written approval from WDFW.

1.04 No Human Transport on Marine Railway. The marine railway shall never be used to transport children or adults.

1.05 Prohibited Merchandise. The sale and rental of boats and flotation devices not approved by the U.S. Coast Guard are prohibited. Also prohibited is the sale of alcoholic beverages and the sale of firearms.

1.06 Fishing Season Closures. In the event of a fishing season closure, Operator shall post the Premises with signs to inform the public. Operator hereby waives any and all claims against WDFW for losses due to fishing season closures.

1.07 No Warranty. This agreement is granted without warranty, either express or implied, regarding the condition, state of repair, or utility of the Premises. WDFW shall not be subject to any liability whatsoever on account of any shortage or defect in any part of the Premises. Operator acknowledges that it has investigated the Premises and are satisfied with it and accepts it "as is" in its current condition including, but not limited to, all facilities and the physical site.

1.08 Limited Rights. No provision of this agreement is intended nor shall be deemed to transfer any real property from WDFW to Operator. WDFW authorizes only those rights and privileges set forth in this agreement during the term hereof. WDFW retains jurisdiction over the Premises in all other respects. WDFW reserves the right to grant easements or leases on, under, or above the Premises, provided that said easement or lease is not inconsistent with the Permitted Use of this agreement. WDFW reserves the right to any trees, minerals, or any other valuable materials in the Premises. Operator shall not remove trees, minerals, or any other valuable material from the Premises without the prior written approval of WDFW.

1.09 No Assignment. Neither this agreement, nor the rights, benefits and obligations set forth herein may be assigned or sublet by Operator in whole or in part without the prior express written consent of WDFW.

1.10 WDFW Access. WDFW retains the right of access to the Premises for its employees, agents and contractors at all times.

SECTION 2
IMPROVEMENTS

2.01 Improvements. Operator may not construct or place improvements, or make structural repairs or alterations to any building or structure, on the Premises without the prior express written approval of WDFW.

2.02 Plan and Schedule. Provided that the requirement of Section 2.01, above, has been met, Operator shall provide WDFW with a detailed construction plan and schedule for WDFW's review and approval, denial or modification prior to the commencement of new construction or expansion of existing improvements.

2.03 Compliance with Laws. Operator is responsible, at its sole cost, to cause all work on the improvements at the Premises during the term of this agreement to be performed in accordance with all applicable laws, codes, and requirements of those governmental agencies having jurisdiction. Operator shall supply copies of all permits and other approvals to WDFW immediately upon receipt.

2.04 No Liens. Operator may not suffer or permit any lien for work, labor, services, materials, or any other reason to be filed or recorded against the Premises.

2.05 Liability for Improvements. Operator shall indemnify, defend, and hold harmless WDFW from and against all governmental penalties and from all claims of property damage and personal injury, by whomsoever made and of any nature whatsoever, that arise out of Operator's improvements on the Premises.

2.06 WDFW's Improvements. WDFW, in its sole discretion, may make improvements to, or modifications of, the Premises to protect and serve the users of the Premises. To the extent possible, WDFW shall schedule its work during the off-season.

SECTION 3
OPERATION AND MAINTENANCE

3.01 Maintenance and Repair. Operator shall, at its sole cost and expense, keep and maintain the entire Premises and all utilities, improvements, and facilities thereon (regardless of ownership) in good order and repair, in a clean, safe, sanitary, and attractive condition. Operator shall correct any repair and maintenance deficiencies identified by WDFW within fifteen (15) days

of written notice or as otherwise specified by WDFW in writing. Operator also agrees to meet all of the requirements and responsibilities contained in Exhibit C ("Snow Creek Resort Operations and Maintenance Activities").

3.02 Utility Charges. Operator is responsible, at its sole cost, for all utility service to the Premises. Operator shall be responsible for all costs, and the legal storage of, propane gas used at the Premises. Operator hereby waives any and all claims against WDFW for losses due to interruption of utility services.

3.03 Water System. Operator, at his sole cost, shall maintain and repair all piping and plumbing to deliver water from the WDFW-built Water System on the Premises to the facilities and campgrounds.

To ensure that the water meets drinking water standards, WDFW shall operate and test the Water System through a DOH-certified contractor. Operator agrees to reimburse WDFW, at the address shown on page 1, for the costs of operating and testing the Water System and shall do so within 30 days of receiving written statements from WDFW. Operator shall ensure that WDFW's Water System contractor has access to the Water System at all times. Major repairs to the Water System are the responsibility of WDFW.

3.04 Advertisements. In any promotional or publicity materials for Snow Creek Resort, Operator shall include a credit line indicating that Snow Creek Resort is owned by the State of Washington, Department of Fish and Wildlife. Operator shall maintain a posted sign provided by WDFW indicating which federal and/or state agencies participated in the acquisition and development of the site.

3.05 Hazardous Substances. Operator shall not allow any substance that is regulated by any governmental authority as hazardous, toxic, dangerous, or harmful (hereinafter referred to as "hazardous substance"), on or around the Premises, unless the hazardous substance is necessary to carry out the permitted use of this agreement and is used in a manner that strictly complies with all applicable requirements of any and all governmental authorities. Immediately upon demand, Operator shall reimburse WDFW for any and all cleanup costs and any and all other charges, fees, costs, fines, and penalties (civil and criminal) imposed on WDFW by any governmental authority that arise out of the presence or suspected presence of hazardous substances on or around the Premises.

3.06 Compliance with Laws. Operator shall operate the Premises in compliance with all applicable laws, rules, regulations, and permitting requirements of WDFW and all other governmental authorities. Operator shall supply copies of permits and other approvals to WDFW immediately upon receipt. Operator shall not allow unlawful activities on the Premises.

SECTION 4
FEES AND TAXES

4.01 Fee. On or before January 3, 2017, Operator shall pay to WDFW a fee calculated as a percentage of the 2016 gross revenue, as defined below. Any late payment shall be subject to an additional charge of one percent (1%) per month until fully paid. The fee shall be calculated as follows:

Two percent of the gross revenue, if the gross is $0 - $15,000.
Three percent of the gross revenue, if the gross is $15,000 - $25,000.
Four percent of the gross revenue, if the gross is $25,000 - $40,000.
Five percent of the gross revenue if the gross is $40,000 or more.

"Gross revenue" shall mean all revenue including, but not limited to, receipts, income, credit and value, received by or accruing to Operator or Operator' benefit in return for facility use, goods, services, or other consideration provided as part of any operation, activity, or facility at the Premises whether evidenced by barter, exchange, check, credit, debit, charge account or cash. "Gross revenue" shall not include sales of state hunting and fishing licenses or sales for which refunds have been made or returns accepted.

4.02 Annual Leasehold Excise Tax. Operator shall annually pay to WDFW the amount of Leasehold Excise Tax ("LET") as required by state law. The LET amount is computed as a

percentage of the annual fee set forth in section 4.01, above. [The current rate is 12.84% of the annual fee.] The LET is due and payable on or before January 31, 2017, and is in addition to the annual fee set forth above. The LET should be paid to WDFW by separate check.

4.03 Taxes and Assessments. Operator shall, at its sole cost, pay all taxes attributable to Operator's improvements on the Premises. Operator also shall, at its sole cost, pay all governmental assessments, such as weed and storm water assessments, for the Premises.

4.04 Books of Account and Audit. Operator shall maintain such permanent records and inventories as are sufficient to show specifically and separately the items of gross revenue, income and expense, receipts and disbursements, and such other information as will correctly reflect the financial condition and results of Operator's operations at the Premises. Such records shall be kept available at all reasonable times for inspection by WDFW. WDFW may require an audit of the Operator's records by a certified public accountant to ensure compliance with this agreement.

SECTION 5
INSURANCE AND LIABILITY

5.01 Insurance. During the entire term of this agreement, Operator shall keep in force a policy of bodily injury and property damage liability insurance, which is acceptable to WDFW and names "The State of Washington, the Department of Fish and Wildlife" as an additional insured, against any liability arising out of: (1) Operator's use, occupancy, operation, and maintenance of the Premises and all appurtenant improvements and facilities; and, (2) the services described in Section 3.03, above, provided by the Water System Contractor. The policy shall be in an amount not less than one million dollars ($1,000,000) per occurrence, combined single limit. During the entire term of this agreement, Operator also shall keep in force a policy for fire and casualty insurance in an amount not less than $50,000 that names WDFW as primary beneficiary. Certificates evidencing said coverages shall be provided to WDFW. All policies shall carry a 30-day notification of cancellation clause.

5.02 No WDFW Liability. Operator shall indemnify, defend, and hold harmless WDFW, its agents and employees, from and against any and all claims arising out of Operator's use of the Premises. Operator further waives any right to recovery against WDFW for loss, damage or injury to persons, improvements, or personal property caused by acts of nature, fire, explosion, war, or water damage.

5.03 Damage. Operator shall pay to WDFW, at its option, restoration costs or compensation immediately upon demand for any damage to the Premises during the term of this agreement. Operator shall reimburse WDFW, immediately upon demand, for any fines or penalties imposed upon WDFW by any governmental authority in connection with said damage.

SECTION 6
TERMINATION AND CANCELLATION

6.01 Termination and Cancellation. This agreement shall terminate at the end of the term as specified above, or earlier upon written request of Operator. This agreement also may be cancelled by WDFW at any time upon thirty (30) days' written notice to Operator in the event Operator violates any of the provisions of this agreement or make unauthorized use of the Premises. In the event of a violation or unauthorized use, WDFW shall notify Operator in writing at the address specified above and allow Operator twenty (20) days to correct the condition. Unless the correction is made to WDFW's satisfaction, this agreement shall be cancelled on the date set forth in the notice and all rights conveyed by this agreement shall automatically revert to WDFW without necessity of further legal action. Operator shall not be entitled to a refund of fees, taxes, or other amounts paid. Operator's failure to comply with any of the obligations under this agreement shall be excused only if due to causes beyond Operator's control and without the fault or negligence of Operator, including acts of nature, war, fire, flood, epidemics, and strikes.

6.02 Surrender of the Premises. In the event of termination or cancellation of this agreement, Operator shall immediately vacate and deliver up the Premises to WDFW.

6.03 Removal of Operator's Property. Operator shall have sixty (60) days after termination or cancellation of this agreement to remove its property, as listed on Exhibit B, and restore the related portions of the Premises to the original condition, except as otherwise mutually agreed upon in writing. Any of Operator's property remaining on the Premises after said time shall become the property of WDFW without further process and Operator shall reimburse WDFW, immediately upon demand, for removal and site restoration costs related thereto.

6.04 Operator's Rights and Obligations after Termination or Cancellation. Upon termination or cancellation of this agreement, all rights of Operator hereunder shall cease. All obligations of Operator under this agreement shall continue after termination or cancellation until fully performed by Operator.

6.05 Emergency Suspension. WDFW may temporarily suspend this agreement, or the operation of one or more facilities on the Premises, during an emergency upon written notice to Operator.

SECTION 7
GENERAL PROVISIONS

7.01 No Partnership or Employment. WDFW is neither a partner nor a involved in joint venture with Operator in the operation of the Premises and WDFW shall have no obligation with respect to Operator's liabilities and debts. Operator and its employees are not employees or agents of WDFW and shall not hold themselves out as such.

7.02 Amendments. Any revision or amendment to this agreement shall be made in writing and executed by the authorized representative of both parties.

7.03 Governing Law. This agreement shall be governed by the laws of the State of Washington. In the event of a lawsuit involving this agreement, jurisdiction and venue shall be proper only in the State of Washington, Thurston County Superior Court.

7.04 Severability. If any covenant or provision of this agreement shall be adjudged void, such adjudication shall not affect the validity, obligation, or performance of any other covenant or provision, or part thereof.

7.05 No Waiver. WDFW's forbearance to exercise its rights under this agreement in the event of any default or violation by Operator shall not be deemed or construed to be a waiver by WDFW of its rights.

7.06 Entire Agreement. This document contains the entire agreement between the parties and no statement, promise, representation, inducement, or agreement made by either party that is not contained in this written document shall be binding or enforceable.

IN WITNESS WHEREOF, the parties hereto mutually have agreed upon the terms and conditions of this instrument and have caused it to be executed on this day as below subscribed.

WASHINGTON DEPARTMENT OF FISH AND WILDLIFE, Landowner

By: Clay L. Sprague, Lands Division Manager — Date: 7/25/16

ATWOOD PETERS, Operator

By: Craig Atwood — Date

By: Jake Peters — Date: 5-9-16

EXHIBIT "A"

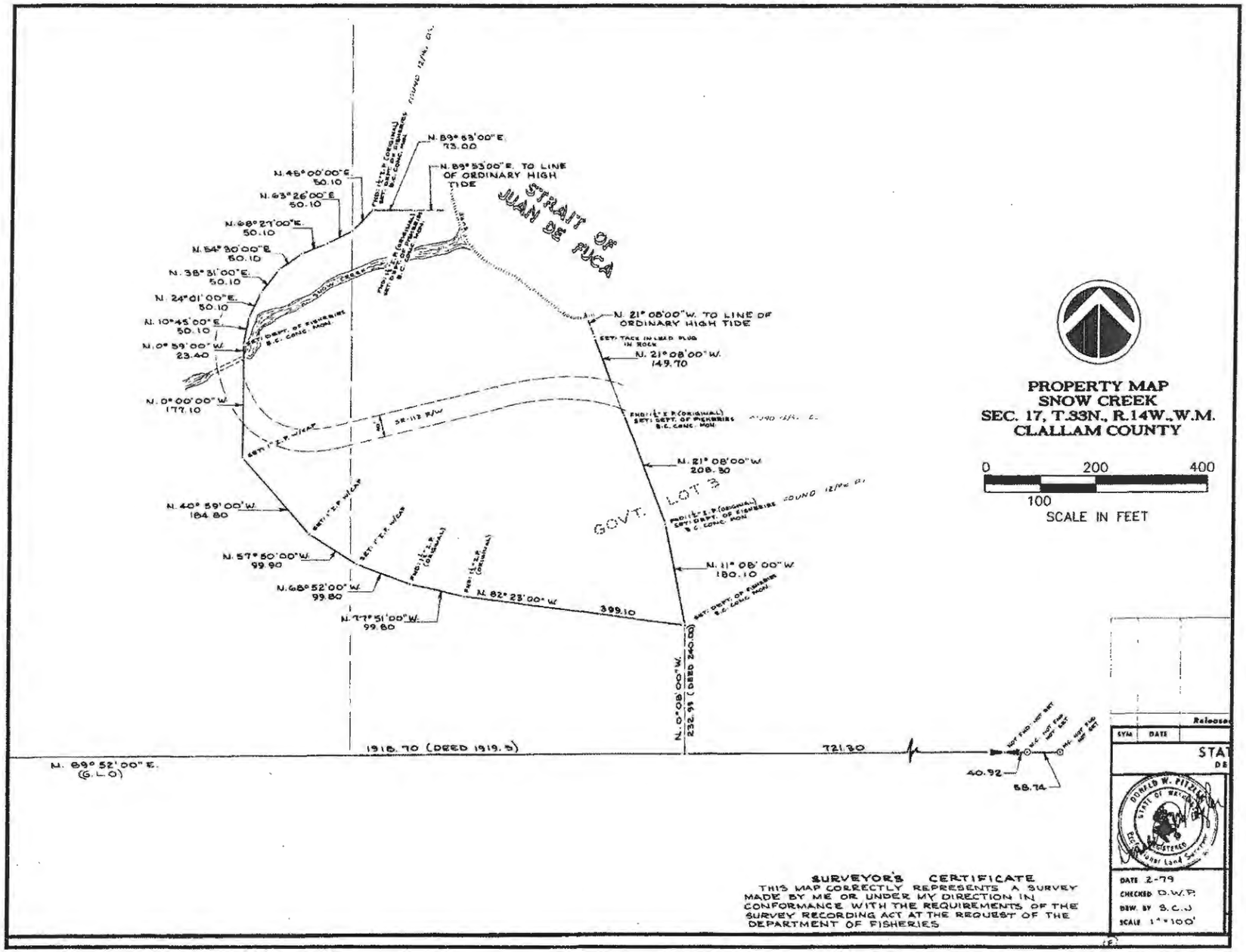
STRAIT OF JUAN DE FUCA
N. 89° 53' 00" E. TO LINE OF ORDINARY HIGH TIDE
N. 89° 53' 00" E. 73.00
N. 46° 00' 00" E. 50.10
N. 63° 26' 00" E. 50.10
N. 68° 27' 00" E. 50.10
N. 54° 30' 00" E. 50.10
N. 38° 31' 00" E. 50.10
N. 24° 01' 00" E. 50.10
N. 10° 45' 00" E. 50.10
N. 0° 59' 00" W. 23.40
N. 0° 00' 00" W. 177.10
N. 40° 59' 00" W. 164.80
N. 57° 50' 00" W. 99.90
N. 68° 52' 00" W. 99.80
N. 77° 51' 00" W. 99.80
N. 82° 23' 00" W. 399.10
N. 21° 08' 00" W. TO LINE OF ORDINARY HIGH TIDE
N. 21° 08' 00" W. 149.70
N. 21° 08' 00" W. 208.80
N. 11° 08' 00" W. 180.10
N. 0° 08' 00" W. 232.95 (DEED 240.00)
GOVT. LOT 3
SR-112 R/W
N. 89° 52' 00" E. (G.L.O.)
1918.70 (DEED 1919.5)
721.80
40.92
58.74
PROPERTY MAP
SNOW CREEK
SEC. 17, T.33N., R.14W., W.M.
CLALLAM COUNTY
0 200 400
100
SCALE IN FEET
SURVEYOR'S CERTIFICATE
THIS MAP CORRECTLY REPRESENTS A SURVEY MADE BY ME OR UNDER MY DIRECTION IN CONFORMANCE WITH THE REQUIREMENTS OF THE SURVEY RECORDING ACT AT THE REQUEST OF THE DEPARTMENT OF FISHERIES
DONALD W. PITZER
STATE OF WASHINGTON
REGISTERED
DATE 2-79
CHECKED D.W.P.
DRW. BY S.C.J.
SCALE 1" = 100'

EXHIBIT "B"

Grantee's Possessions

1. The eight cabins located on lower lot north of the highway.
2. The washing machine, dryer, freezers and refrigerators, cash registers, any vending machines, coffee makers, computers, and micro waves.
3. Desk and all office equipment.
4. Any unsold fishing tackle, groceries and retail fixtures (excluding the counter) in the store.
5. All hand, electric, and power tools that are the personal property of the Grantee.
6. 1 Backhoe.
7. One electric welder.
8. Air compressor used to fill scuba tanks.
9. Picnic tables.
10. 40 foot van parked at the upper lot.
11. The two "Personal Travel Trailers" used on the site during the operating season as housing for Grantees.

Initials:

Jake Peters: _____

Craig Atwood: _____

Exhibit "C"

Snow Creek Resort Operations and Maintenance Activities

General:

WDFW acquired the Snow Creek Resort property to ensure public access to unique high-quality fishing opportunities along the northern coast of the Olympic Peninsula. Because this property is remote and unique in character among other WDFW properties, WDFW has entered into an agreement with an Operator to provide services at the site.

The Operator is responsible for providing safe launching, moorage, and camping services at a reasonable cost to the public. The Operator also is expected to provide labor, materials and funding for all operations and basic maintenance and upkeep of the facility and grounds. The Operator shall not make structural repairs or alterations to any building or structure on the site, or replace any integral component, without prior consultation and approval by WDFW.

WDFW is responsible for addressing major repairs at the site. Availability of funding may affect timing and WDFW's ability to meet these needs. This includes major infrastructure repairs, replacements, or modifications especially those of a structural nature. WDFW, at its discretion, may elect to remove or close any building or structure that is not within its current ability to repair or maintain if deemed unsafe for use, or no longer necessary to meet the public's needs at the site.

Annual Maintenance Requirements:

Prior to each season of operation, Operator shall arrange to meet with WDFW's Access Manager to discuss and develop an annual maintenance plan consisting of a list and schedule of maintenance tasks to be completed or otherwise addressed during the year. The annual maintenance plan shall be mutually agreed to in writing and incorporated into this agreement by reference. Any disagreements regarding the annual maintenance activities will be referred to WDFW's Regional Wildlife Program Manager for resolution. WDFW's Access Manager will be responsible for inspecting and monitoring the maintenance work identified.

At a minimum, Operator shall perform the following annual maintenance tasks, regardless of whether included in the annual maintenance plan:

- All gutters and downspouts will be cleaned a minimum of once per year and on an as-needed basis to clear any blockages.
- All structures and roofs shall be cleaned of Moss and other growth.
- Exterior gaps in buildings that may allow water intrusion shall be caulked or otherwise sealed.
- Damaged or broken outlets and fixtures shall be replaced.
- RV hookup power boxes and supports, water outlets, and sewer hookups shall be repaired upon discovery of any damage.
- Septic pumping on an as-needed basis, but not less than twice per season.

Additional maintenance items in the annual maintenance plan may include but are not limited to:

- Painting of buildings, other structures, and equipment
- Repair of boat launching equipment
- Dock and Float Repairs
- Applying gravel or other road/parking area repairs

Water System Operations:

Water for the Snow Creek Resort is provided via a seasonally operated slow sand filtration water plant owned by WDFW. WDFW will contract with licensed operators to oversee and operate the water system. Only individuals approved by the Washington Department of Health, Office of Drinking Water may preform operations, testing and other required duties. As needed, the Operator is expected to provide assistance requested and directly supervised by the treatment plant operators.

WDFW will pay up to $3,000 of the water system operations costs in 2016. The Operator shall reimburse WDFW for all other normal water system operation costs above this amount including:

- Treatment Plant Operator payments
- Chlorine and other chemical agents necessary for water treatment or testing
- Parts necessary to make minor plumbing repairs to readily accessible leaks or breaks
- Other necessary supplies such as test strips, cleaning supplies, etc.

Off Season Operator Responsibilities:

- All gates, doors, windows shall be closed and secured to the fullest extent practical. If possible, all of same should be locked.
- Operator shall provide site visits at least monthly during the off season and report findings and any issues to WDFW Access Manager. Reports can be submitted via phone, text or email whichever is most appropriate based on the circumstances. The following should be included in each monthly visit:
    - Assure that all gates and facilities are secure and no intrusions have occurred.
    - Any required signs to alert the public of safety issues replaced as needed.
    - Visual inspection for storm or other damage needing to be addressed.
    - Any loose litter or debris should be picked up and removed or stored appropriately for later disposal.
- Coordinate with, and if necessary assist, WDFW with repairs, maintenance or other related work.

Operator's Property:

WDFW acknowledges that the Operator owns certain items and equipment located on the Snow Creek Resort property. The Operator acknowledges that WDFW accepts no responsibility toward maintaining any of these features and that WDFW may require removal of any item deemed unsafe, unnecessary or inappropriate for operations at the site.

Snow Creek Reconstruct Facility Predesign Report

PREPARED FOR OFM

Lane C. Sater | WDFW | 6/26/2020

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Executive Summary

Snow Creek Resort is notable as the westernmost, State-owned public access site along the Straits of Juan De Fuca. Located 3 miles east of Neah Bay, the site is known for stunning views of the Straits, including Seal and Sail Rocks and has a view of distant Vancouver Island. Currently closed, the site historically provided camping, small boat and kayak access, allowing visitors to view wildlife including whales, seals, sea lions, otters, eagles, and a wide variety of bird species. The remote location, on the lee side of the Olympic Peninsula, protects from prevailing ocean winds and generally provided a calm water experience, making it a highly desirable location for boaters, campers and wildlife enthusiasts. The abundance of rockfish, including lingcod a few hundred feet offshore and quick access to great salmon and halibut fishing provides a strong draw for fishermen and offers a unique experience for divers. The grant used for the purchase requires the property be used to provide a motorized boat launch or another property must be purchased in its place. Despite its popularity, the resort was closed in 2017.

Figure 1 - Snow Creek Resort

Consequently, WDFW reviewed the Snow Creek Resort in 2018 for its feasibility as a water access site to determine if it is economically feasible to manage the site. The determination of the Feasibility Study (see Appendix G) was that if the site is fully renovated with a major capital improvement project, it is feasible to restore the property to much of its historic use, including boat launching, mooring, camping, running water and restroom facilities. Capital

investment in this infrastructure would provide tremendous opportunity for a quality outdoor experience in one of the premier boating, fishing and wildlife viewing areas in the Washington.

Three alternatives were considered at differing levels of service and maintenance requirements. The first option included everything the resort once had and is considered to have full amenities. The second option did not include running water or operation of the water treatment system, but still allowed for dry camping and moorage, the third options minimized the maintenance while still providing a minimum amount of water access without higher maintenance features.

The preferred alternative of full amenities including water, ramp, camping, boarding floats and mooring buoys is recommended over the options with less amenities, to provide the greatest benefit to local communities and the State by encouraging visitation, providing and preserving access to one of Washington's most unique areas and natural resources, and building local economies. The alternative was developed in careful consideration of the effects on local communities and in consultation with Clallam County and the Makah Tribe to provide a facility beneficial to everyone in Washington.

Upon approval of the Pre-Design Report, WDFW would request $840,000 for the design and permitting of the preferred alternative in the 21-23 Capital Budget and $7.3 M for construction and construction support in the 23-25 Capital budget. Snow Creek Resort is in the Agency 10-year Capital Budget Plan.

Problem Statement, Opportunities and Goals

The WDFW mission statement is to protect and perpetuate fish, wildlife and ecosystems while providing sustainable fish and wildlife recreational and commercial opportunities. Snow Creek Resort redevelopment supports this mission by providing greater opportunity through a developed area for users to launch boats, access the Straits of Juan De Fuca, allowing fishing and wildlife viewing. Redevelopment of this access for camping and boat and kayak launching in this area near the entrance to Puget Sound allows users to avoid disturbance of the ecosystem along many local, easily accessible beaches, protecting ecologically important lands, addressing factors influencing Puget Sound Ecosystem Health, identified in Results Washington.

Requirements

As a condition of the 1978 Land and Water Conservation Grant WDFW used for the purchase of the property, the site must provide a boat launch, or another property and launch must be provided in its place. Included in the contract language is, "RCW 43.99.100, Marine recreational land with respect to which money has been expended under RCW 43.99.080 shall not, without the approval of the committee, be converted to other uses other

than those for which such expenditures were originally approved. The committee shall only approve any such conversion upon conditions which will assure the substitution of other marine recreation land of at least equal fair market value at the time of conversion and of as nearly as feasible equivalent usefulness and location."

The existing launch is in a state of disrepair and not operational and has been closed since 2017. Without redevelopment, this requirement remains unfulfilled. No other suitable properties appear available in the area. Redevelopment, including a boat launch, would bring the State in compliance with the grant conditions and provide greater opportunities to access fish and wildlife in accordance with WDFW's mission statement.

Solving the Problem

To address the issue and to meet objectives, the site would need to be redeveloped to include a boat launch, floats, mooring buoys, RV and tent camping, parking, restrooms, a water system upgrade, a walking bridge and one full-time caretaker/vendor to manage water usage, floats, moorage, camping, traffic control. General operations would also include grounds maintenance and water system testing and maintenance. Seasonal work would include installing floats in the Spring, prior to fishing season and removing and storing floats on shore in the Fall to prevent winter storm damage. A consistent source of revenue generated from site fees is necessary for maintenance and operations.

The collection of fees was addressed in the feasibility report completed in 2018. After review of WDFW policies and procedures, it was determined that it would not be practical for WDFW to develop its own system for collecting usage fees. Alternatively, it is feasible to include fee collection in a vendor contract that would allow a private vendor to collect fees determined by WDFW and use those fees for the upkeep of the site.

The level of service WDFW will develop is dependent on the availability of a full-time, seasonal caretaker and maintenance staff (vendor), qualified to maintain the community water system, collect fees, provide traffic control and keep the site clean, safe, and maintained, daily. The ability to collect fees at the site is key to keeping it feasible to operate and maintain floats, mooring buoys, boat ramps, running water, restrooms with showers,

Figure 2 - Resort Office, 2015

and campsites and this would be accomplished by having a consistent on-site management presence.

WDFW's goal is to build a long-term contractual relationship with a reliable vendor in order to be able to sustain the highest level of amenities and service as historically existed at the site. Informal interviews with potential users have demonstrated a desire for more camping, water access, and moorage in this area. WDFW can provide those services with this project.

Prior Planning and History

In 2019, WDFW obtained a Shoreline Exemption for normal repair and maintenance of the existing facility. In January 2020, Clallam County adopted a new Shoreline Master Plan containing increased restrictions on development along shorelines. The exemption WDFW received includes all elements in the options listed in this report. The permitted use is valid for five years and may be extended upon approval of request, providing WDFW a limited opportunity to restore this access area to its normal, historic use. If the Shoreline Exemption for normal repair and maintenance expires through no action, many elements in the redevelopment options presented herein will be eliminated, as they would fall under more stringent guidelines of the newly adopted Shoreline Master Plan.

There are no known previous predesign reports, previous funding requests were limited to smaller project scopes including demolition of the pier, upgrade to the water system, and design requests.

As mentioned previously, in 2018, WDFW completed a feasibility study showing redevelopment of Snow Creek is feasible (See Appendix F). This included a study performed by Mott-Macdonald regarding feasibility of in-water structures. Several key redevelopment considerations came to light. Importantly, development of a launch at the site conforms with language in the original LWCF grant agreement for the property, which states the purchase of the property was for installation of a boat launch. Consequently, installation of a launch will bring the State into compliance with the original contract agreement, otherwise, another property must be purchased for installation. Installation of an elevated boat ramp rather than a rail launch is preferable due to the flat slope of the beach, safety concerns and staffing required for the rail launch. If floats are to be included, the entire float system must be replaced. As part of the Feasibility, an eel grass study was completed, and no eelgrass was found within the project area.

If potable water is to be provided at the site, the water system requires modernization, including a new intake structure, electronic monitoring and a new pipe distribution system. In 2015 the water system was redesigned to meet Department of Health requirements for a Type A water system. A complete evaluation of the system was completed and modification for compliance were implemented,

Also, if restrooms with running water are to be provided on-site, several options were listed to address the poor condition of the existing septic system. In 2019, an on-site analysis,

addressing replacement and expansion possibilities, was performed by an approved Clallam County septic designer, and it was determined that the existing septic system requires rehabilitation to be functional. This inspection also showed that a new septic system on the upper lot is feasible, provided drainage issues are addressed (See Appendix D).

To address safety concerns, all on-site electrical wiring throughout the site, much of which is in a state of disrepair, must be replaced and brought up to code.

In 2015, the existing pier was failing and out of compliance with the aquatic lease. As part of the removal project two cultural resource studies were completed to evaluate the site for impacts to cultural resources. These studies will be updated during the design and permitting process.

During the feasibility process and communication with stakeholders, the following additional issues were identified:

- The project must address safety concerns expressed by the Makah tribal council regarding the potential for resort traffic to disrupt road access to Neah Bay. Highway 112, bisecting the site, is the only road to Neah Bay. Heavy boat and trailer traffic have the potential to block emergency access to and from the village during peak periods.
- The project must meet the criteria of the original Land and Water Conservation Fund grant.
- The project must be permittable and environmentally feasible
- The project must be palatable to the local community and not cause economic or social hardship
- The project must result in a product that is maintainable, physically and financially.
- The project must provide motorized boating access required by RCO

Analysis of Alternatives

Alternatives Considered

WDFW assessed three options for site redevelopment and a no-build option. Option 1 is preferred and would include full redevelopment of the access, including boat launch, floats, mooring, mooring buoys, RV and tent camping, water and sewer systems, restrooms, parking and a caretaker and fee collection, which would help cover maintenance costs. Option 2, without the full-time presence of a caretaker, will support a self-launch boat ramp and minimal loading floats to be seasonally removed, along with gravel parking and vault toilets. This lesser alternative would not require fees, nor would it support running water or camping, much like a typical WDFW access site. Maintenance costs would become the obligation of WDFW. Option 3, a self-launch boat ramp with no floats, would allow the similar upland site configuration but elimination of the seasonal contractor required for float

installation and winter storage. Maintenance costs would become the obligation of WDFW. Option 4, the No-Action Option, would be not to build anything and leave the site as-is. All options are discussed in more detail below.

Summary Table of Options

Summary of Options				
	Option 1 (Preferred)	**Option 2**	**Option 3**	**Option 4 -No Action**
MACC	$5,958,000	$3,180,000	$2,591,000	$0
Amenity				
Parking Space	12 Paved / 2 ADA 14 Gravel / North	12 Paved / 1 ADA 14 Gravel / North	12 Paved / 1 ADA 14 Gravel / North	None
Boat Trailer Space	12 Paved / 1 ADA 14 Gravel / South	12 Paved / 1 ADA 14 Gravel / South	12 Paved / 1 ADA 14 Gravel / South	None
Boat Ramp	Elevated 20x200	Elevated 20x200	Elevated 20x200	None
Caretaker	Full-Time	Seasonal	None	None
Potable Water	South Lot	None	None	None
Flush Toilets	South Lot	None	None	None
Vault Toilets	2 - South Lot	2 - South Lot	2 - South Lot	None
Camping (Full)	15 Spaces / 2 ADA	None	None	None
Camping (Dry)	10 Sites	None	None	None
Electrical Service	North and South Lots	North Lot Only	Security Only	None
ADA Access	North and South Lots	North Lot Only	North Lot Only	None
Floats	Mooring / Launch	Launch	None	None
Kayak Launch Float	Mooring	None	None	None
Mooring Buoys	12	None	None	None
Footbridge	South Lot	None	None	None

Option 1 – Preferred Alternative - Full Rebuild, Full-Time Caretaker

Project Scope

To provide all the historic functions of the Snow Creek Resort, including boat launch, floats, mooring, camping, running water, and powered campsites, full-time

Figure 3 - Floats, Rail and Beach Launching Shown. View from Upper Camping Area, 2015

seasonal staff would be required to operate and maintain the facility, as well as provide security, traffic control fee collection. With full-time staff May-September, the water system could be adequately tested and operated, and showers and flush restrooms would be possible on the upper (south) portion of the site. A vault toilet, for year-round operation could be available on the lower site. Overnight camping and RV hook-ups could be allowed. Floats and mooring buoys could be installed and monitored during periods of rough weather and removed as necessary. A boat launch could be monitored and maintained.

Total Preferred Option amenities include:

Launch Site (North of Highway 112)

- Elevated Boat Launch Ramp
- Boat Launch Float
- Mooring Float
- Kayak Launch Float
- Mooring Buoys
- Foot Bridge
- Tent Camping
- Vault Toilet
- ADA Accessible Parking
- Asphalt Paved Loop
- Gravel Parking

Upland Site (South of Highway 112)

- RV Camping
- Tent Camping
- Potable Water
- RV Site Power
- RV Site Sewer
- RV Dump Station
- Restroom with Showers
- ADA Accessible Parking
- Asphalt Paved Loop
- Gravel Overflow Parking

Staff:

- Full-Time Caretaker
- Seasonal Contractor to Install and Pull Floats
- Full Time Water System Manager

Project Requirements

The project would require demolition of all existing infrastructure except the water treatment facility. It would include, one full-time staff, new resort model mobile home, new boat ramp construction, new float construction and installation, new septic system, new electrical throughout the site, gravel entrance, restart water system, delineated parking areas, and new helical screw type mooring anchors. A vault toilet would be provided on the lower site near the water and a restroom and showers would be constructed on the upland site, requiring a septic system permit and DOH approval for water system operation. A water right is in place; however, a maintenance and access

Figure 4 - Upper Camping Area, South of Highway

easement will need to be formalized for the water intake in Snow Creek. In addition, a year-round security plan would need to be implemented to prevent vandalism and theft in the off season. A DNR aquatic lease and Corps permit would also be necessary for the boat ramp, floats and mooring buoys. Clallam County provided a shoreline exemption for the work described in this option under, normal repair and maintenance. See appendix C for the preferred option redevelopment plans.

Project Income

Sources of income would come from any approved fees including, launching fees, mooring fees, Discover Pass fees and camping fees. Income will be used to cover the costs of the Caretaker, water system manager, and on-site maintenance.

Project Costs

Option 1, the preferred option, has the highest project cost of the four options. Development costs would be significant for engineering design and installation of mooring floats, mooring buoys, restrooms with running water, a water distribution system, sanitary sewer system, restroom facility, office, and stormwater treatment systems. Operating costs for option one would require staffing, water, power, supplies, and equipment for float removal and installation, landscaping maintenance and cleaning.

The total anticipated project cost for Option 1, is $8.2 million. The maximum allowable construction cost is $6 million.

If funded, design and permitting would be completed between 2021-2023. The project would be constructed between 2023 – 2025. Full operation would begin April 1, 2025.

Advantages and Disadvantages

The preferred option would fulfill the requirement to maintain a boat launch.

The advantages of the preferred option over all others are numerous. Highlights include restoration of the property to its historic use, improved safety through an on-site management presence, leading to proper traffic control, potable water availability, and communications equipment management where cell reception is limited. Provided a full-time caretaker is on-site, traffic control may be easily addressed with temporary vacancy signage and other direction. Additionally, Option 1 would provide increased visitor carrying capacity for the region by providing RV and tent camping sites, and restrooms with showers. The positive economic impacts on local communities would be amplified by overnight stays. Operations and maintenance associated with on-site management presence would allow boat moorage and mooring buoys. Finally, vandalism would be minimized.

The disadvantages to the preferred option are the redevelopment costs associated with float and mooring buoy installation, restroom, water, and sewer system upgrades and camp site improvements and construction of an office / caretaker residence. Due to the remote location of the site, the preferred option depends on a full-time contracted caretaker and water system manager.

Option 2 – Seasonal Contractor, Dry Use/ Day Use Only

Project Scope and Requirements

Using a seasonal contractor, rather than full time, and without potable water, a boat ramp, launch float, vault toilets, and parking are feasible. The water system requires daily or twice daily monitoring to meet ecology and department of health standards and without a designated water system monitor there will be no potable water availability. A determination on the preservation of water rights and the possibility of non-potable water uses would be necessary. A maintenance and access easement would be formalized for the intake in Snow Creek for the potential of future use. Without an on-site caretaker and potable water, RV and tent camping would not be allowed. The project, as an access site would still be required to have adequate restroom facilities and the existing restroom would be demolished, and a vault toilet system would be implemented in its place on the lower site.

A seasonal vendor would be required to install launch floats at the beginning of season and pull launch floats prior to winter. The site could still functionally support water access, picnic tables and wildlife viewing. Most of WDFW access sites do not have water available. This option would be consistent with other similar launches and water access owned by WDFW. Without a caretaker for a portion of the year, upgraded security would be needed to prevent and deter theft and vandalism. Traffic control would also be needed during halibut openers and during peak seasons.

Improvements associated with this plan were addressed in the shoreline exemption provided by Clallam County. A DNR aquatic lease and Corps permit would be necessary. Total amenities would include:

Launch Site (North of Highway 112)

- Elevated Boat Launch Ramp
- Boat Launch Float
- Kayak Launch Float
- Foot Bridge
- Vault Toilet
- ADA Accessible Parking

- Asphalt Paved Loop
- Gravel Parking

Upland Site (South of Highway 112)

- Asphalt Paved Loop
- Gravel Overflow Parking

Staff:

- Seasonal Contractor to Install and Pull Launch Floats

Project Revenue

Sources of income would come from any approved fees including launch fees, mooring fees and Discover Pass fees. Revenue from camping would be eliminated as the site would be day-use only.

Project Costs

Project costs for option 2 would be the equivalent of option 1 with a reduction in cost for the restroom facility rebuild and elimination of the need for a screened surface water intake, reducing the cost by $200,000 or more. However, in the last several years over $100,000 has been invested into the water system to keep it operational. That investment would not be recoverable if the water system is abandoned. The site would still generate a consistent revenue source through camping, mooring, and launching. Operating costs for option two would require contractor costs, including equipment for float removal and installation, restroom, pavement and landscaping maintenance and cleaning and regular vault toilet pumping.

The total anticipated project cost for Option 2, is $4.8 million. The maximum allowable construction cost is $3.2 million.

If funded, design and permitting would be completed between 2021-2023. The project would be constructed between 2023 – 2025. Full operation would begin April 1, 2025.

Advantages and Disadvantages

Option 2 would fulfill the requirement to maintain a boat launch at the access.

The advantages over the preferred option would be reduction in redevelopment and long-term maintenance costs associated with the elimination of the mooring floats, buoys, water and sewer systems, RV and tent camp sites office. Additional gravel overflow parking would be available, replacing the camping spots and water system.

The disadvantages related to the preferred option are, without a daily and consistent on-site presence, reduced safety in heavy traffic events, potential congestion on the launch float and restricted communications in an area with limited cell service, limiting emergency response. The site would not be able to support camping, flush restrooms, or any mechanically operated improvements. Without an onsite presence, the availability of mooring buoys and extended floats would also be compromised as there would be no one to respond quickly to storms or high winds that may damage any floats or buoys extending beyond the protected cove. There would be a limitation of landscaping and amenities subject to vandalism or theft such as, picnic tables and barbeque pits. Without a caretaker, upgraded security would be needed to prevent and deter theft and vandalism.

Option 3 – Boat Launch and Parking Only

Project Scope and Requirements

Without a caretaker and potable water, this option would only include a boat ramp, parking, vault toilets, and basic water access for most tides. The project, as an access site would be required to have adequate restroom facilities, meaning the existing restroom would be demolished, and a vault toilet would be installed at the waterfront site. A determination on the preservation of water rights and the possibility of non-potable water uses in the future would be necessary, however, a maintenance and access easement for the intake in Snow Creek would not be formalized for this option.

Improvements associated with this plan were addressed in the shoreline exemption provided by Clallam County. A DNR aquatic lease and Corps permit would be necessary.

Total amenities would include:

Launch Site (North of Highway 112)

- Elevated Boat Launch Ramp
- Vault Toilet
- ADA Accessible Parking
- Asphalt Paved Loop
- Gravel Parking

Upland Site (South of Highway 112)

- Gravel Overflow Parking

Staff:

- Seasonal Contractor to Install and Pull Launch Floats

Project Revenue

Without an onsite caretaker, it would be unlikely that this project would generate revenue. The site would rely on capital funding and existing access area maintenance funds to stay open. Like most WDFW sites, the vault toilets would be serviced, and seasonal mowing would take place. Because this site is remote and not near any other WDFW sites, there would be an increased burden on maintenance funding required as it would take the maintenance staff nearly a full day to visit just this site.

Project Costs

Project costs for this "typical" WDFW site would be primarily demolition as with the other two options, vault toilet installation, formal and informal parking lots, stormwater, boat ramp, but it would still require significant mitigation for redevelopment.

The total anticipated project cost for Option 3, is $4 million. The maximum allowable construction cost is $2.6 million.

If funded, design and permitting would be completed between 2021-2023. The project would be constructed between 2023 – 2025. Full operation would begin April 1, 2025.

Advantages and Disadvantages

Option 3 would fulfill the requirement to maintain a boat launch at the access. It would be maintainable by existing staff and not reliant on an outside contractor. The site would still provide much desired water access.

The advantages over option 2, are a significant reduction in redevelopment costs and reduced maintenance and operations costs through elimination of launch float installation and elimination of seasonal float placement and removal.

Disadvantages of option 3 include reduced safety during peak events, no on-site electronic communication facilities and an extreme decrease in safety while launching and recovering boats without a launch float.

Option 4 – No Action

Project Scope and Requirements

Without reconstruction the site will not be able to support camping in any form, motorized boat launching, or restrooms. Regional, peak-season user capacity would be reduced, eliminating camping, and limiting fishing and wildlife viewing opportunities, contrary to WDFW's mission. The upper site would remain closed and the lower site would remain gated, with limited roadside parking and no

restroom facilities. Hand launching of kayaks would still be possible, but there would not me any ADA access.

No additional permits would be necessary.

Project Revenue

This option would generate no revenue.

List of Amenities

- Unimproved parking
- Hand launch
- Gated access

Project Costs

Costs would be simplified to maintenance of the existing facility. However, this would include increasing maintenance costs in the coming years to address demolition and cleanup associated with maintaining the facility in an accessible and safe condition.

The current cost of maintenance, according to WDFW staff, is approximately $3,000 per year, which includes three visits to the site and miscellaneous repairs of locks, gates and barriers.

Advantages and Disadvantages

Option 4 will not fulfill the requirement to maintain a motorized boat launch at the access leaving the State out of compliance with the grant requirements.

The advantages to the No-Build option are, no traffic impacts to the adjacent highway and cost savings for WDFW in maintenance and operations.

The consequences of selecting the "No Action" alternative, to public service delivery, include restriction of the number of visitors to the site and severe limitation of water access. This site was previously a bustling hub of camping, boating and wildlife watching activity but currently only affords space for two vehicles to park in front of the lower gate. A maximum of 10-12 people may effectively access the site at any time if the site is left as-is.

Additionally, the remote location of the site makes day-use challenging. Taking no action eliminates the historic use of the site for RV and tent camping. If no action is taken, users of the site will lack restroom facilities, and potable water, potentially contributing to unsanitary conditions. The existing water treatment facility would require increased maintenance to be secure and to remain in its current condition.

No action includes elimination of the recent historic use of the site for motorboat access, including launching and mooring. Boating is limited to hand-carrying small boats such as kayaks, several hundred feet to the water's edge, discouraging most users from making the effort. Taking no action also increases the difficulty for divers, requiring them to carry heavy dive equipment to the water. This severely limits what was historically a tremendous opportunity for divers to explore and view and catch rockfish and lingcod around nearby Seal and Sail rock. It also virtually eliminates power boat use, denying anglers access to excellent local salmon, halibut, rockfish and lingcod fishing in the Straits. The purchase agreement for this property requires the State to install a boat launch, which will not be satisfied without redevelopment unless another property is purchased.

Regarding on-site maintenance, up to three buildings will require removal during the next few years for WDFW to continue allowing limited access. Depending on maintenance, the water treatment facility may require demolition and removal. This would be a significant loss of money previously invested in the system. Existing restrooms and the office building have been broken into, used as restrooms and vandalized and are not securable in their current condition. Vegetation will continue to encroach into existing camping and parking areas and buildings, further limiting use and increasing future redevelopment costs.

The No Action alternative also negatively impacts the economies of local communities. Supplies necessary for recreation such as fuel, groceries, vehicle, RV, trailer and boat parts, life jackets, licenses, fishing gear, nets, bait, ice, firewood, fish smoking and processing supplies, etc. are not available on-site. Lost gear and forgotten supplies are always a challenge in remote locations. Access, supply and resupply require users to travel to nearby towns, the closest of which are, Neah Bay, three miles to the west, and Sekiu, 14 miles to the east. The larger number of Snow Creek visitors who would have been drawn to local hotels, restaurants, coffee stands, phone service areas, postal service, coastal beaches, cultural attractions and events, will not be frequenting these places, eliminating potential income for local businesses. Finally, during peak seasons, the maximum visitor carrying capacity of the region is reduced without redevelopment of the Snow Creek Facility.

Summary of Life Cycle Cost Analysis results using the LCCT

The full life cycle cost model is included in Appendix B. Because this is a boat launch facility with minimal building square feet, maintenance and long-term costs were modified to accurately portray long-term costs. Use of a vendor and allowance of that vendor to collect fees commensurate with maintenance costs will offset most of the life cycle costs. Routine Fish and Wildlife maintenance is included with the one-time capital budget construction expenditure and a long-term maintenance contract. Extensive maintenance costs are not expected. See LCCM Summary below.

Life Cycle Cost Analysis - Project Summary

Agency	Washington Department of Fish and Wildlife
Project Title	Snow Creek Resort Renovation

Existing Description	Renovating the site of an existing boat launch including camping and moorage. Site is already owned by WDFW and alternative lease sites are not applicable. Existing site has been closed due to safety deficiencies.

Lease Option 1 Description	Not Applicable, existing site development

Lease Option 2 Description	Not applicable, existing site development

Ownership Option 1 Description	Snow Creek Reconstruct Facility - Reconstruction of the Resort including RV and tent camping, water and septic systems, restrooms and showers, mooring floats, boat launch, launch floats and parking facilities. Elevated boat ramp with floats is primary construction component.

Ownership Option 2 Description	Snow Creek Reconstruct Facility - Option 2. Reconstruction of the Snow Creek Resort including boat launch, launch floats, restrooms, and parking facilities.

Ownership Option 3 Description	Snow Creek Reconstruct Facility - Option 3. Reconstruct the Snow Creek Resort including, boat launch, restrooms and parking facilities.

Lease Options Information	**Existing Lease**	**Lease Option 1**	**Lease Option 2**
Total Rentable Square Feet	-	-	-
Annual Lease Cost (Initial Term of Lease)	$ -	$ -	$ -
Full Service Cost/SF (Initial Term of Lease)	$ -	$ -	$ -
Occupancy Date	n/a		
Project Initial Costs	n/a	$ -	$ -
Persons Relocating	-	-	-
RSF/Person Calculated			

Ownership Information	**Ownership 1**	**Ownership 2**	**Ownership 3**
Total Gross Square Feet	120,670	96,256	96,256
Total Rentable Square Feet	120,670	96,255	96,255
Occupancy Date	3/31/2025	3/31/2025	3/31/2025
Initial Project Costs	$ -	$ -	$ -
Est Construction TPC ($/GSF)	$ 80	$ 58	$ 48
RSF/Person Calculated	-	-	-

Financial Analysis of Options

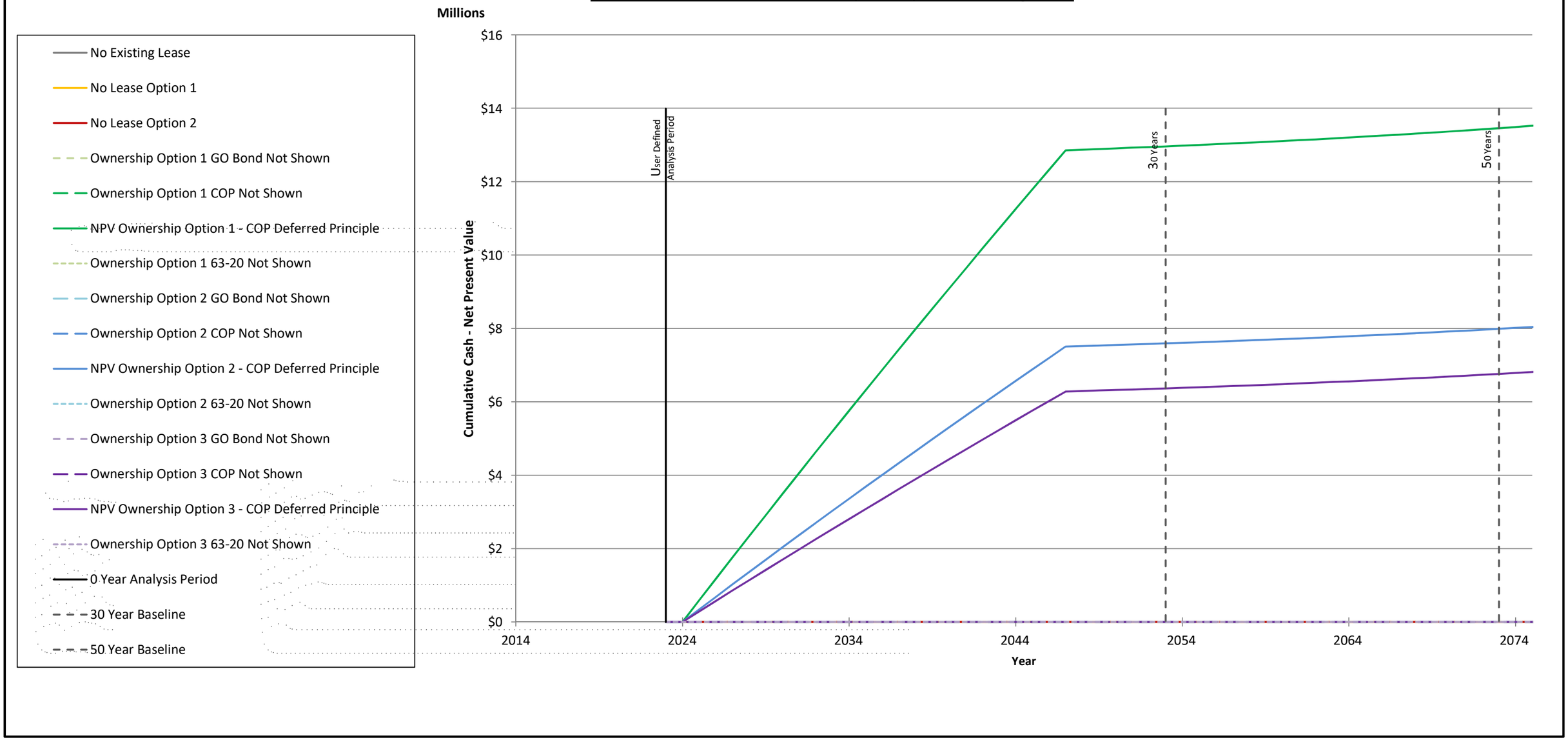
	Display Option?	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	No	No	No	Yes	No
	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
0	0 Year Cumulative Cash	$ -	$ -	$ -			$ -				$ -				$ -	
	0 Year Net Present Value	$ -	$ -	$ -			$ -				$ -				$ -	
	Lowest Cost Option (Analysis Period)															

	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
30	30 Year Cumulative Cash	$ -	$ -	$ -			$ 13,900,916				$ 8,141,215				$ 6,824,083	
	30 Year Net Present Value	$ -	$ -	$ -			$ 12,942,624				$ 7,578,106				$ 6,350,936	
	Lowest Cost Option (30 Years)						**3**				**2**				**1**	

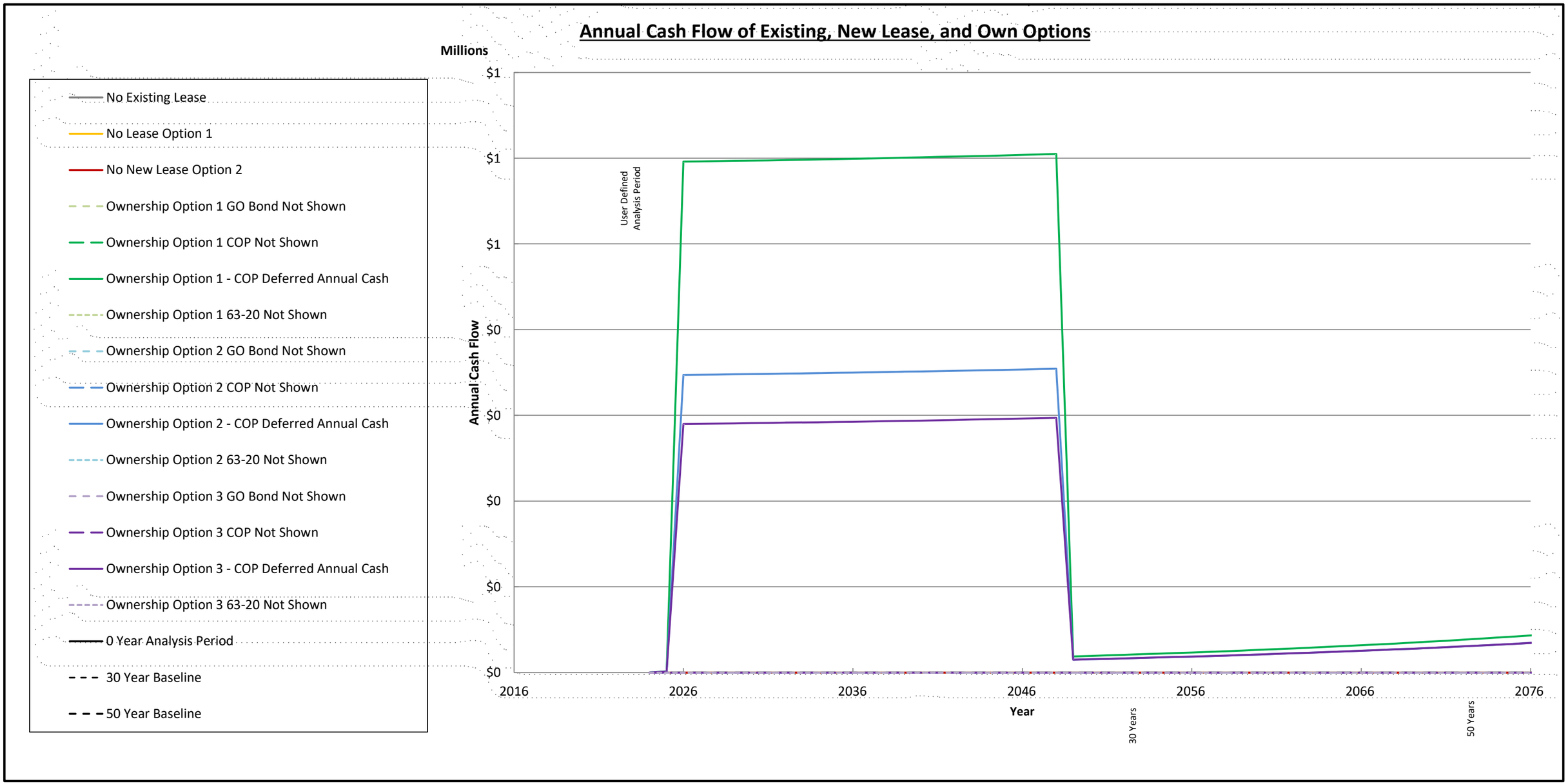
	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
50	50 Year Cumulative Cash	$ -	$ -	$ -			$ 14,500,778				$ 8,619,712				$ 7,302,581	
	50 Year Net Present Value	$ -	$ -	$ -			$ 13,425,226				$ 7,963,068				$ 6,735,898	
	Lowest Cost Option (50 Years)						**3**				**2**				**1**	

** - Defers payment on principle for 2 years while the building is being constructed. See instructions on Capitalized Interest.*

Cumulative Cash - NPV of Exist, Lease, and Own Options



Annual Cash Flow of Existing, New Lease, and Own Options



Financial Assumptions

Date of Life Cycle Cost Analysis:	6/11/2020
Analysis Period Start Date	4/1/2023
User Input Years of Analysis	0

All assumptions subject to change to reflect updated costs and conditions.

	Lease Options			Ownership Option 1			Ownership Option 2			Ownership Option 3		
	Existing Lease	**Lease Option 1**	**Lease Option 2**	**GO Bond**	**COP**	**63-20**	**GO Bond**	**COP**	**63-20**	**GO Bond**	**COP**	**63-20**
Inflation / Interest Rate	3.120%	3.120%	3.120%	3.540%	3.720%	3.720%	3.540%	3.720%	3.720%	3.540%	3.720%	3.720%
Discount Rate	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%
Length of Financing	N/A	N/A	N/A	25	25	25	25	25	25	25	25	25

See Financial Assumptions tab for more detailed information

COP Deferred and 63-20 Financing defer the payment on principle until construction completion.

New Lease Assumptions

Real Estate Transaction fees are 2.5% of the lease for the first 5 years and 1.25% for each year thereafter in the initial term of the lease.

Tenant Improvements are typically estimated at $15 per rentable square foot.

IT infrastructure is typically estimated at $350 per person.

Furniture costs are typically estimated at $500 per person and do not include new workstations.

Moving Vendor and Supplies are typically estimated at $205 per person.

Default Ownership Options Assumptions

Assumes a 2 month lease to move-in overlap period for outfitting building and relocation.

Assumes surface parking.

The floor plate of the construction option office building is 1 gross square feet.

The estimated total project cost for construction is $63.00 per square foot.

See the Capital Construction Defaults tab for more construction assumptions.

Schedule Estimates

Schedule estimates for options 1-3, due to permitting and in-water work windows are the same. Design would begin July 2021; the project midpoint would be June 2023 and construction would be complete in September of 2024. A more detailed schedule is provided in the Detailed Analysis of the Preferred Alternative, below.

Detailed Analysis of the Preferred Alternative

Nature of Space

Snow Creek Resort is a 7.42 Acre parcel, bisected by Highway 112. The site north of Highway 112, adjacent to the water contains 2.33 acres and would be used to provide a boat launch, mooring floats, launch floats, kayak launch, parking, restrooms, tent camping, picnic areas, stormwater treatment, mitigation and beach access.

The portion of the site located south of Highway 112, contains 5.09 acres, is significantly higher in elevation, offers stunning views, and would be used for RV and tent camping, parking, water treatment facilities, sanitary sewer treatment, and restroom facilities, including showers.

Occupancy Numbers

Maximum site occupancy is based on the following:

- 15 Recreational Vehicle sites. Assumes 3 people / site / day = 45 people per day
- 10 Tent Sites. Assumes 3 people / site / day = 30 people per day
- 13 Parking Stalls: Assumes 8 for tent camping, 5 remain. Assumes 3 people/car/day = 15 people per day
- 28 Truck and boat trailer Stalls. Assumes 3 people / boat / day = 84 people per day
- Modified by -50%, assuming half stay in on-site RVs or tents = 42 people per day
- Boat-only visitors. Assume 2 boats/day containing 3 people = 6 people per day

Total Maximum Site Occupancy: 138 people per day

Building Configuration

Buildings on the northern site, adjacent to the water, would include an office and a CXT toilet. A 24' x 12' office would be constructed to provide approximately 288 square feet of office space. The double CXT vault toilet would be constructed to provide 192 square feet of restroom area.

The third building, on the southern site, would be constructed as a new 24.75' x 10.5' shower and restroom facility of approximately 260 square feet.

All buildings would be single-story.

Space Needs Assessment / Guidelines used

The Washington State Department of Enterprise Services Space Allocation Standards Report, Volume 1, 2011, was reviewed to determine the appropriate level of square footage of office space necessary to address program service delivery needs. Normal space allocation averages 215 square feet per person for office workspace areas. In consideration of maintenance equipment and customer service space an additional 73 feet is proposed for this project.

Site Analysis

Identify Studies Underway

There are no current studies underway, however, multiple studies would be required during the design phase, including:

- Cultural Review Partially complete. Initiated consultation under EO-0505 with DAHP and interested tribes. Conducted archaeological monitoring of geotechnical study. Cultural resource survey recommended by DAHP and Makah Tribe.
- Geotechnical Study
- Sanitary Sewer System Analysis
- Eel grass Survey (completed in Feasibility Study)
- Wind and Wave Study

Location

The address of the property is 691 WA-112, Neah Bay, WA 98357, approximately 3 miles east of Neah Bay. See Appendix C for vicinity and site maps

Building Footprint, Building Site and Floorplans

Site plans, building footprints and relative locations are shown on the Proposed Site Plan and Basic Floor Plans in Appendix C. There are no known buildings on adjacent properties.

Stormwater Requirements

Clallam County, who has jurisdiction, determined in predesign discussions, that stormwater requirements for redevelopment will include treatment swales and rain gardens, appropriately sized to treat stormwater runoff. Makah Tribal representatives requested stormwater conveyance facilities be oversized to prevent potential damage to the highway during major storm events.

Ownership and Acquisition

This site is owned by the Washington State Department of Fish and Wildlife and was purchased in 1978 with a Land and Water Conservation Fund Grant for the purposes of establishing a boat launch. No further acquisition is required, if the launch is restored at this site.

Easements and Setback requirements

A utility easement exists for power on the site and the commission recently approved an easement adjacent to the highway for high-speed internet service to provide service to Neah Bay. Existing easements are anticipated to have no significant impact on design.

The property is zoned as CF (Commercial Forest) by Clallam County. Building setback requirements for property less than 10 acres in size for front, side and rear yards are 50 feet. Along the Highway 112 right-of-way, the 50-foot setback is measured from the centerline of right-of-way. Proposed building locations meet setback requirements.

Surrounding Neighborhood Considerations

The property surrounding Snow Creek Resort is privately owned by a timber company. No issues are anticipated with the adjacent landowner.

Highway 112, bisecting the property, is the only road access to Neah Bay for emergency, supply. A minimum of one lane will be required to be kept open during utility installation or paving construction within the highway prism. The contractor will be required to coordinate construction activities with the Tribe and to provide effective traffic control during construction.

Ongoing on-site traffic control and signage will be managed by an on-site caretaker as necessary during peak seasons, as requested by the Makah Tribe.

Utility Extension or Relocation Considerations

A new water system intake structure and intake line would be constructed on the southwest side of Highway 112 to provide potable water for the site. An existing water right is on file for the Snow Creek water system. New water service lines will be required to be installed. Water supply, power and communications lines are anticipated to be required to be installed across Highway 112.

A preliminary on-site septic system analysis was performed as a part of the Pre-Design Study (See Appendix C). The study determined it appears feasible to construct a septic system or potentially repair the existing facility on the northern portion of the site. Installation of the restroom and shower facility on the south portion of the site would require an on-site sanitary sewer disposal system, necessitating additional study by a qualified septic system designer to determine the appropriate drain field size, location and system requirements for restrooms and showers on in the southern portion of the site. Sanitary sewer service lines to RV sites will also require relocation and no additional issues are anticipated.

Power service lines will require replacement throughout the site and no significant issues appear to be associated with replacement. Communication service lines will also be required to be installed to the existing water system for electronic monitoring, to the new office for billing and emergency communications and to the new restrooms for potential internet service for the RV camping area.

Potential Environmental Impacts

This project would require significant redevelopment within the water and is therefore subject to appropriate studies and permitting approval through the Corps of Engineers, the U.S. Fish and Wildlife Service (USFWS), Department of Natural Resources (DNR), Clallam County and potentially the Department of Ecology. Unforeseen conditions, such as the presence of wetlands, new eel grass beds or proximity of endangered species could affect permitting timeline and the project schedule. Preliminary study of the site has been favorable, and all indications are that the project can move forward as described. A wetland survey, eelgrass survey, and biological assessment will need to be completed to determine potential impacts and paths for permitting the project. This project will require a 404 Clean Water Act permit through the Corps, HPA through WDFW, SEPA through WDFW, Endangered Species Act consultation through the Corps and USFWS, and Critical Areas, Building, Septic, Grading, Pavement, and Stormwater permits through Clallam County. The final permit will be an aquatic lease through DNR. Permitting will take approximately 1.5-2 years to complete.

Parking and Access Issues

Parking will be limited to that shown on the preliminary plans, including 15 RV stalls, 13 car parking stalls and 26 truck and trailer stalls. Although no access improvements to driveway entrances are required for redevelopment, safety improvements will be addressed during the design phase, including improving turning movements into and out of the north and south access areas and improving pedestrian safety while crossing Highway 112. Considerations will include shoulder widths, signing and striping.

Surrounding and Existing Development Impact

No impacts to surrounding areas are anticipated and construction lay-down areas and phasing will be contained on-site. Additional, existing gravel area exists on the southern portion of the site which will allow the contractor material storage and staging capability.

Long-Term Plan Consistency

RCW 43.88.110 has been reviewed and expenditure programs and the allotment and reserve procedures have been and will be followed by the executive branch for public funds, in accordance with the requirements set forth therein. These include, but are not limited to:

- Allotment for appropriation conforming to the terms, limits and conditions of the appropriation – site is consistent with WDFW Capital Budget, Mission, and historic use of the site.
- The director of financial management providing WDFW operating and capital instructions for preparation of the statement of proposed expenditures
- Submission of a statement of proposed expenditures by the WDFW to the Governor as part of WDFW Capital Budget request
- OFM monitoring of capital appropriations associated with the project including, estimates of total project costs, including past, current, ensuing and future biennial costs;
- Comparisons of estimated construction start and completion dates with actual dates
- Documentation of fund shifts between projects. None are anticipated at this time.
- OFM institution of procedures for review to reduce long-term costs and increase facility efficiency including, evaluation of facility program requirements and consistency with long-range plans; Utilization of a system of cost, quality and performance standards to compare major capital construction projects and; A requirement to incorporate value-engineering analysis and constructability review into the project schedule. Review of design is discussed further under, Schedule, below.

- Approval by OFM secured for allotment of funds prior to project expenditures or project obligations being entered.
- WDFW accounting records maintained according to RCW requirements set forth in chapter 43.

The Snow Creek reconstruction project is consistent with WDFW agency mission and consistent with the historic use of the site. Redevelopment of the property is in accordance with the Capital Budget requirements and will be incorporated into the Agency Capital Budget Request for 2021-2023 as well as inclusion in the WDFW 10-year Capital Budget Plan submitted with the capital budget request.

Consistency with Other Laws and Regulations

High-Performance Public Buildings

RCW 39.35D has been reviewed. Per RCW 39.35D.030, this facility does not qualify as a "Major Facility Project" as it is below five thousand gross square feet of occupied or conditional space. This project is not required to meet the Standards for Major Facility Projects.

However, in accordance with RCW 39.35D090, it is the intent to make it a priority to use Washington State based resources, building materials, products, industries, manufacturers and other businesses to provide economic development to Washington State and to meet other objectives in Chapter 39.

During the design phase, standards will be reviewed to determine if any LEED standard is practicable for the project, in accordance with RCW 39.35D.020

State Efficiency and Environmental Performance

Building designs will be designed to be zero energy or zero-energy capable and include consideration of net-embodied carbon. If cost effective zero-energy buildings are not technically feasible, buildings will be designed to exceed the current state building code for energy efficiency to the greatest extent possible, per Executive Order 18-01-1(b), New Facility Construction.

Greenhouse Gas Emissions Reduction Policy

There is little energy use on site. All energy efficient options for safety lighting will be considered per RCW 70.235.070.

Archaeological and Cultural Resources

Project development would be fully compliant with both Executive Order 05-05 and Sec. 106. DAHP has been consulted during the Pre-design process (See Appendix E)

Americans with Disabilities Act

ADA access would be provided to ramp, floats, parking, toilets, and camping areas per Executive Order 96-04. Items to be addressed include but are not limited to maximum run slopes, cross-slopes, ramp locations, run lengths, landings, railing, curbing, parking, signing, and striping.

Compliance with Planning Chapter 36.70A RCW

The proposed project follows the Clallam County Comprehensive Plan, originally adopted in 1995 and updated every eight years to ensure they continue to comply with the Growth Management Act RCW 36.70.130. The board of Clallam County Commissioners adopted Resolution 82 on August 7, 2018, to affirm completion of this periodic review requirement that the County's comprehensive plan and development regulations continue to comply with the GMA and requirements set forth in RCW 36.70A.

This project is within the Clallam County Straits Planning Region, Western Straits, Rural, and it is not in an Urban Growth Area. The property is zoned, CF (Commercial Forest). Permitted uses include RV parks in the western half of the straits regional comprehensive planning area. Conditional uses include outdoor oriented recreational facilities. The proposed project has been reviewed by Clallam County Planning and has been granted Shoreline Exemption (SHR2019-00014) as an existing recreational facility. All proposed improvements are addressed under normal repair and maintenance.

Information Required by RCW 43.88.0301(1)

(1) The office of financial management must include in its capital budget instructions, beginning with its instructions for the 2003-05 capital budget, a request for "yes" or "no" answers for the following additional informational questions from capital budget applicants for all proposed major capital construction projects valued over five million dollars and required to complete a predesign:

(a) For proposed capital projects identified in this subsection that are located in or serving city or county planning under RCW 36.70A.040:

(i) Whether the proposed capital project is identified in the host city or county comprehensive plan, including the capital facility plan, and implementing rules adopted under chapter 36.70A RCW; - No

(ii) Whether the proposed capital project is located within an adopted urban growth area: - No

(A) If at all located within an adopted urban growth area boundary, whether a project facilitates, accommodates, or attracts planned population and employment growth; - No

(B) If at all located outside an urban growth area boundary, whether the proposed capital project may create pressures for additional development; - No

(b) For proposed capital projects identified in this subsection that are requesting state funding:

(i) Whether there was regional coordination during project development; - Yes

(ii) Whether local and additional funds were leveraged; - No

(iii) Whether environmental outcomes and the reduction of adverse environmental impacts were examined. - Yes

(2) For projects subject to subsection (1) of this section, the office of financial management shall request the required information be provided during the predesign process of major capital construction projects to reduce long-term costs and increase process efficiency.

Other Codes or Regulations

This project would adhere to all applicable building codes. All components affecting surface water will comply with the Washington State Hydraulic Code. It will also adhere to Federal water quality regulations (Section 404) and codes covered under the Army Corps of Engineers permit, (Section 106).

Further Evaluation

It is anticipated that the Washington State Department of Transportation (WSDOT) would require a traffic study and specialized road approach design. Further evaluation of traffic flow and traffic safety would be required. The evaluation would include signage, pedestrian access to and from the upper lot, speed limitations, and road approach requirements.

On previous public meetings, it has been expressed that a new launch would have an economic impact on the surrounding private launches. As part of the design, we would complete an economic/user analysis to see what costs or benefits the launch would have on the surrounding community. Due to the site size and proposed launch dimensions, it is our position that the launch would not outcompete the neighboring launches and would be beneficial in taking overflow and bringing more tourism to the area.

Major Components

Major components of the project are the boat launch ramp, restrooms, office and parking and camp sites. All are proposed to be designed in accordance with and comply with existing codes. The water system is unique; however, operation and monitoring are strictly governed by the Washington State Department of Health.

Planned Technology Infrastructure

Cell phone coverage is extremely limited at the access site due to the topography of the area. Planned technology infrastructure for this project is limited to the communications infrastructure needed to provide a security system, to electronically monitor the water system and septic systems and to provide cable internet and phone service. Recently the internet capability was improved in the area and will be the primary source of communication. The water and septic system monitoring, emergency contact capability and communication and coordination capabilities associated with the infrastructure are extremely important for effective management of the facility, public health, and safety and coordination with the Makah Tribe.

Planned Commissioning

As discussed in the schedule, below, commissioning and testing will occur for seven months in 2023, prior to opening the facility to the public. During this time, the water system, septic system, communications equipment, buildings and infrastructure will be tested to verify they function as designed.

Future Phases

This property is limited in size and the topography is restrictive. Most usable area has been developed. There are currently no plans for expansion, future phases or other facilities that would affect this project.

Project Delivery

The proposed project delivery method is, Design-Bid-Build. Permitting is intended to run simultaneously with design.

Agency Management

The proposed project will be managed by the WDFW's Capital and Assets Management Program (CAMP). Staff engineers will oversee consultants, design and permitting staff during the design development and permitting phase. After award, WDFW engineers, construction project coordinators and inspectors will oversee construction. WDFW real estate staff and regional management will oversee vendor agreements, maintenance and operation of the facility.

Schedule

As previously mentioned, this would be a design-bid-build project, spanning 3 biennia, the details of which are below.

MILESTONE SCHEDULE

July 1, 2019 – June 30, 2020: Pre-Design and choice of Preferred Design

July 1, 2020-June 30, 2021 – Incorporation into Capital Budget Request

June 2021 – Start of design and permitting upon budget approval

July 1, 2021 – June 30, 2023: Design and permitting of preferred design

- July 1, 2021 – July 1, 2022 – Design, value-engineering, constructability review, permits prepared
- November 2022, June 2023 – Construction funding requested in capital budget
- June 30, 2023 – Review Comments Addressed, design complete, permitting complete

July 1, 2023 – June 30, 2025: Construct as designed

- August 1, 2023 – September 1, 2023 – Bid and contract award
- September 1, 2023 – September 1, 2024 – Construction and equipment installation
- September 1, 2024 – March 31, 2025 – Testing, occupancy, vendor selection

April 1, 2025 – Full operation

Value-Engineering and Constructability Review

As shown above, during the design phase July 1, 2021 – June 30, 2023, the project will undergo quality control reviews throughout the design phase and value-engineering and constructability reviews at between 75 – 95 percent completion. This will ensure the project is designed to provide the highest value for the investment and to

minimize or eliminate changes during construction as required by RCW 43.88.110(5)(c).

Scheduling Considerations

The primary factor that may affect the construction schedule is weather. Frequent heavy rainfall may disrupt earthwork and paving efforts, however, construction companies typically working in this region are adept at adjusting their schedules to take advantage of favorable weather conditions to complete projects on time. Scheduling will have to take into consideration busy tourist seasons and impacts to the narrow highway. Permit requirements will control the in-water construction timelines. Funding or phasing of project could also contribute to delay of schedule.

Permitting and Local Government Ordinances Affecting Schedule

This project would require significant redevelopment within the water and is therefore subject to appropriate studies and permitting approval through the Corps of Engineers. Unforeseen conditions, such as the presence of newly discovered Eel Grass beds or proximity of endangered species could affect permitting timeline and the project schedule. Preliminary study of the site has been favorable, and all indications are that the project can move forward as described.

The project is in a remote location away from neighborhoods and outside development. No effects on schedule are anticipated. Permits possibly affecting schedule include the Corps Permit and DNR Aquatic Lease. The Corps permit process is expected to take 1.5 - 2 years, after which, WDFW may begin the Aquatic Lease process, expected to take an additional two months.

Local Jurisdictions and Stakeholders

Clallam County, the local jurisdiction, provided review and input during the predesign and recently approved a shoreline exemption for the reconstruction of the facility. Throughout the feasibility and predesign studies, the Department of Fish and Wildlife has identified and involved stakeholders, included as follows:

- The Makah Tribe
- Clallam County
- Washington State Department of Natural Resources (DNR)
- Washington State Department of Health (DOH)
- Washington State Department of Archaeology and Historic Preservation (DAHP)
- Washington State Recreation and Conservation Office (RCO)
- Pacific West Timber Company (Washington), LLC (adjacent landowner)
- U.S. Army Corps of Engineers (Corps)

Regional staff met and had phone conversations with representatives of the Makah Tribe to address Tribal review comments during the Feasibility Study and the Pre-Design Study. In-person meetings and a site visit were held to discuss the options available on the site and how a cooperative relationship is valued for this project. Presentation of the design options was provided to Council representatives and staff in 2019 and an early version of the pre-design was provided in June 2020 for review. The Makah Tribe expressed intention to form a committee to continue working with WDFW through all phases of development.

Meetings with Clallam county were discussed in the Assessment of options. Discussions with Clallam County were held between October 2019 and March 2020, resulting in identification of additional necessary permits including, critical areas review, building, demolition and septic permits. Clallam County is supportive of the project and we have been granted a Shoreline Exemption for the preferred option. Further discussions will take place as we complete design work and request a building permit.

In October and November of 2019, WDFW communicated with DNR and determined the process to acquire an aquatic lease for both the marine shorelands and the bed lands within Snow Creek where the water intake for the access site is located. Once executed, the lease will be recorded at Clallam County. Comments received from DNR were sent to the contractor (Mott McDonald) to be included in the pre-design for the marine components. 10/28/19- 11/18/2019

The water intake for the access site is located on Campbell Global/Pacific West Timber Company Property. In November 2019, WDFW communicated with their headquarters and regional offices and obtained a signature from Wes Romberg, the Olympia Tree Farm Area Manager, to access their property to determine if further work is needed. The Preferred Option and Option 2 would pursue a long-term easement with Campbell Global.

Communication with the WDFW Area Habitat Biologist from October 2019 through December 2019 provided comments on design and survey components required as part of the proposed project. Mitigation and work windows were discussed but are preliminary and further clarification will be provided during the design phase.

Conversation with the U.S. Army Corps of Engineers Project Manager in November 2019 confirmed the review process for Clean Water Act (CWA) 404 and Endangered Species Act (ESA) impact determinations and stressed the importance of communication with the Makah Tribe.

Finally, consistent, effective communication and stakeholder involvement have been and will continue to be instrumental in reconstruction of this important facility.

Budget Analysis - Preferred Alternative

Cost Estimate

Major Assumptions

Major assumptions included dimensions, year to be constructed, escalation factor, and the remote location of the project. Development of the cost estimate for marine work was based on estimate provided by Mott MacDonald in the 2018 Feasibility study and modified based on current WDFW float project costs and remote location factors. Development of the cost estimate for upland work was based on current WDFW access construction project costs.

Additional assumptions are listed below.

Assumptions	
Estimating Sources	2020 C100 Form CAMP Construction Estimation Form Current WDFW Constructon Projects 2018 Mott Macdonald Consultant Estimate
Inflation Rate	3.18%
Sales Tax Rate	8.50%
Contingency Rate	4%
A/E Percentage	7.50%
Escalation Rate	3.60%

See the Snow Creek Reconstruct Facility Estimate and Mott MacDonald cost estimates below for more detailed information.

Snow Creek Reconstruct Facility

Option 1 - Preferred

Estimate Type: **Budget** By: LS

Estimating Contingency is included in each item below	25%							0	
	# yrs to mid construction of last phase	% infl / yr							
Inflation adjustment from the May **2018** cost basis that this spreadsheet is current to, is included in each item below	3.8	2.0%			Inflation after cost basis:		0.0%		3.6%
Mobilization (Mob cost is auto added to ea. item below)	4%								
Overhead & Profit (OH & P) included in the cost of each item below									

Item Description	Unit Cost	Unit	Quantity	Extension	Current BN Extension w/ contingency & mob.	CONSTRUCTION BIENNIUM Current		Next
PROJECT ELEMENTS								
Element Lower Site Upland								
Demolition of Office and Restroom	$40	sf	1,200	$48,000	$62,000			
Grading	$1.50	sf	43,560	$65,340	$85,000			
Gravel	$1.40	sf	12,860	$18,004	$23,000			
Asphalt Paving / Striping	$9.40	sf	22,860	$214,884	$279,000			
Tent Sites (Topsoil, Sand & Seed)	$3.00	sf	8,000	$24,000	$31,000			
Septic Decommission	$16,000	ls	1	$16,000	$21,000			
Electrical Upgrades with Lighting	$85,000	ls	1	$85,000	$111,000			
Landscaping (includes swales / rain gardens)	$8.50	sf	10,000	$85,000	$111,000			
CXT Vault Toilet	$60,000	ea	1	$60,000	$78,000			
Stream/Shoreline Restoration	$365	lf	250	$91,250	$119,000			
Temp Office Pad with Power / Water	$26,000	ea	1	$26,000	$34,000			
Potable Water Service	$25,000	ea	1	$25,000	$33,000			
Bridge	$18,700	ea	1	$18,700	$24,000			
Element Subtotal:					$1,011,000	1	$1,011,000	0	$0
Element Access Pier, Gangway and Mooring Floats								
Transfer Ramp & Upland Footing	$16,000	ea	1	$16,000	$21,000			
Aluminum Walkways (50x7)	$52,500	ea	3	$157,500	$205,000			
80'x5' Aluminum Gangway	$60,000	ea	1	$60,000	$78,000			
8'x36' Float	$33,800	ea	11	$371,800	$483,000			
16" Steel Piles	$11,000	ea	18	$198,000	$257,000			
Rock Sockets for Piles	$9,000	ea	18	$162,000	$211,000			
Steel Pile Caps for Walkways	$3,500	ea	3	$10,500	$14,000			
Gangway Hoist Head Frame	$5,000	ea	1	$5,000	$7,000			
Misc. Hardware	$150,000	ls	1	$150,000	$195,000			
Element Subtotal:					$1,471,000	1	$1,471,000	0	$0
Element Non-Motorized Low-Freeboard Floats								
8'x40' Low Freeboard Floats	$32,000	ea	4	$128,000	$166,000			
8'x20' Kayak Launch Float	$18,000	ea	1	$18,000	$23,000			
Misc. Hardware	$24,840	ls	1	$24,840	$32,000			
Element Subtotal:				$0	$221,000	1	$221,000	0	$0
Element Elevated Boat Ramp and Boarding Floats								
16" Steel Piles	$11,000	ea	8	$88,000	$114,000			
Rock Sockets for Piles	$9,000	ea	38	$342,000	$445,000			
20" Boat Ramp Piles	$10,000	ea	30	$300,000	$390,000			
Steel Pile Caps for Boat Ramp	$3,000	ea	15	$45,000	$59,000			$0
Boat Ramp Concrete Deck Planks	$70	sf	4,446	$311,220	$405,000			
8'x35' Launch Floats	$25,000	ea	3	$75,000	$98,000			
CIP Concrete Curb and Topping Slab	$30,000	ls	1	$30,000	$39,000			
Misc. Hardware	$214,000	ls	1	$214,000	$278,000			
Element Subtotal:					$1,828,000	1	$1,828,000	0	$0
Element Mooring Buoys								
Marker Buoys and Hardware	$1,200	ea	12	$14,400	$19,000			
Vessel Mooring Buoy Anchor	$3,500	ea	12	$42,000	$55,000			
Misc. Hardware	$10,200	ls	1	$10,200	$13,000			
Element Subtotal:					$87,000	1	$87,000	0	$0
Element Upper Site								
Landscaping	$26,000	ls	1	$26,000	$34,000			
RV Campsites	$800	ea	16	$12,800	$17,000			
Septic	$60,000	ea	1	$60,000	$78,000			
Water System	$80,000	ls	1	$80,000	$104,000			
Grading/ trailer removal	$2.50	sf	43,560	$108,900	$142,000			
Asphalt Paving	$7.50	sf	17,760	$133,200	$173,000			
Gravel	$1.40	sf	25,300	$35,420	$46,000			
ADA Restroom with Showers (20x16)	$170	sf	288	$48,960	$64,000			
Electical Upgrades and Lighting	$42,000	ls	1	$42,000	$55,000			
Intake (concrete vault with screens)	$52,000	ls	1	$52,000	$68,000			
Element Subtotal:				$0	$781,000	1	$781,000	0	$0
Element General									

INSTRUCTIONS: Enter "1" for the biennium in which the element is projected to be constructed.

Gates	$2,400	ea	2	$4,800	$6,000				
Fencing	$16	lf	2,000	$32,000	$42,000				
Signs	$1,600.00	ea	2	$3,200	$4,000				
Interpretive Gazebo	$4,700	ea	1	$4,700	$6,000				
Park Model Office / Residence	$104,000	ea	1	$104,000	$135,000				
Security Cameras	$900	ea	4	$3,600	$5,000				
				$0	$0				
				$0	$0				
Element Subtotal:				$0	$198,000	1	$198,000	0	$0
Estimated MACC at respective mid-biennia:							$5,597,000		$0
					Sum total:		$5,597,000		

Notes:
1 This estimate is based on information provided by Mott Macdonald (2018). Only a walk of the site has been conducted, no thorough investigations. Soils are assumed to be non-organic, non-clay, suitable for normal foundations, wetlands assumed to not be in construction area, E&T species are not an issue. Also it is assumed that funding is from direct appropriation from the Legislature to WDFW, that no funds from other agencies or Federal or Tribe is involved. If any of these assumptions is incorrect the effect on the estimate may be significant and the estimate must be redone.

M MOTT MACDONALD

WDFW Snow Creek Feasibility Assessment
Cost Estimate Worksheet

From 2018 Feasibility Study

Location: **Neah Bay**
Project: **Snow Creek Boater Access Facility**

Prepared By: **SC/JL/SP**
Date: **09/06/18**

Item #	Work Item Description	Quantity/Units	Unit	Unit Cost	Item Cost	Totals
Access Pier, Gangway and Floats						
1	Furnish and Install Transfer Ramp & Upland Footing (15'x7')	1	EA	$16,000	$16,000	
2	Furnish and Install Aluminum Walkways (50x7)	3	EA	$52,500	$157,500	
3	Furnish and Install 80'x5' Aluminum Gangway	1	EA	$60,000	$60,000	
4	Furnish 8'x36' Floats	11	EA	$28,800	$316,800	
5	Transport and Install Supplied Floats	11	EA	$5,000	$55,000	
6	Furnish and Install 16" Steel Piling (floats)	10	EA	$11,000	$110,000	
7	Furnish and Install 16" Steel Piling (walkways)	6	EA	$11,000	$66,000	
8	Rock Sockets for Piles	18	EA	$9,000	$162,000	
9	Furnish and Install Steel Pile Caps for walkways	3	EA	$3,500	$10,500	
10	Furnish and Install Gangway Hoist Head Frame	1	EA	$5,000	$5,000	
11	Furnish and Install Steel Piling (Gangway Hoist)	2	EA	$11,000	$22,000	
12	General Costs (18%)	1	LS	$147,120	$147,120	
					Subtotal	**1,127,920**
					Total Incl. 25% Contingency and Sales Tax	**1,468,552**
Elevated Boat Ramp and Boarding Floats						
1	Boarding Floats Anchor Piles - 16" - Furnished & Installed	8	EA	$11,000	$88,000	
2	Rock Socket for Boarding Float Piles	8	EA	$9,000	$72,000	
3	Boat Ramp Piles (20")	30	EA	$15,000	$450,000	
4	Rock Socket for Boat Ramp Piles	30	EA	$9,000	$270,000	
5	Boat Ramp Piles Caps	15	EA	$3,000	$45,000	
6	Furnish and Install Boat Ramp Concrete Deck Planks	4446	SF	$65	$288,990	
7	Furnish 6'x35' Floats	8	EA	$21,000	$168,000	
8	Transport and Install Supplied Floats	8	EA	$5,000	$40,000	
9	CIP Conrete Curb & Topping Slab	1	LS	$30,000	$30,000	
10	General Costs (18%)	1	LS	$213,299	$213,299	
					Subtotal	**1,665,289**
					Total Incl. 25% Contingency and Sales Tax	**2,168,206**
Marine Rail Launch and Boarding Floats	Marine Rail Launch Option Not Used for Pre-Design					
1	Boarding Floats Anchor Piles - 16" - Furnished & Installed	5	EA	$11,000	$55,000	
2	Rock Socket for Boarding Float Piles	5	EA	$9,000	$45,000	
3	Furnish 6'x36' Floats	4	EA	$21,600	$86,400	
4	Transport and Install Supplied Floats	4	EA	$5,000	$20,000	
5	Furnish and Install Steel Pile Caps for Float support at low tides	10	EA	$3,500	$35,000	
6	Offshore Rails					
	Site Prep	1	Lump	$15,000	$15,000	
	Pile Supply	600	Lin. Ft.	$175	$105,000	
	Rock Socket for Rail Pile	24	Each	$7,000	$168,000	
	Steel Rail Supports	1742	Lbs	$10	$17,420	
	Supply Rails	240	Lin. Ft.	$50	$12,000	
	Install Rails	1	Lump	$15,000	$15,000	
7	Apron Rails & Winch					
	Concrete Casting	1	Lump	$5,000	$5,000	
	Rail Supply	64	Lin. Ft.	$50	$3,200	
	Install Rails	1	Lump	$3,000	$3,000	
	Winch & Cable Supply	1	Each	$15,000	$15,000	
	Carriage & Misc. Supply	1	Each	$18,000	$18,000	
	Installation & Testing	1	Lump	$15,000	$15,000	
8	Lifting Frame					
	Foundations	4	Each	$3,000	$12,000	
	Pipe Supports	50	Lin. Ft.	$60	$3,000	
	Cross Beams	26	Lin. Ft.	$113	$2,925	
	Rail Beam	40	Lin. Ft.	$75	$3,000	
	Hoist & Controls	1	Each	$5,000	$5,000	
	Installation & Testing	1	Lump	$15,000	$15,000	
9	Marine Rail Open-sided Shed (30'x32')	960	SF	$75	$72,000	
10	Electrical and controls	1	Lump	$25,000	$25,000	
11	Project Clean-up	1	Lump	$9,750	$9,750	
12	General Costs (18%)	1	LS	$140,525	$140,525	
					Subtotal	**921,220**
					Total Incl. 25% Contingency and Sales Tax	**1,199,429**
Mooring Buoys						
1	Marker Buoys and Hardware	12	EA	$1,200	$14,400	
2	28' Vessel Mooring Buoy Anchor	12	EA	$3,500	$42,000	
3	General Costs (18%)	1	LS	$10,152	$10,152	
					Subtotal	**66,552**
					Total Incl. 25% Contingency and Sales Tax	**86,651**
Non Motorized Low Freeboard Docks and Kayak Launch						
1	Furnish 8'x40' Low Freeboard Floats	4	EA	$28,000	$112,000	
2	Furnish 8'x20' Kayak Launch Floats	1	EA	$14,000	$14,000	
3	Transport and Install Low Freeboard Floats and Kayak Launch	3	EA	$4,000	$12,000	
4	General Costs (18%)	1	LS	$24,840	$24,840	
					Subtotal	**162,840**
					Total Incl. 25% Contingency and Sales Tax	**212,018**

NOTES:

1. General costgs cover mobilization, environmental protection, surveying, and other incidental costs.
2. Engineering, Regulatory Permitting, Data Collection (Geotechnical) and mitigation cossts are not included.
3. No escalaation factors included.
4. Upland Improvements not included.

Summary Table of Uniformat Level II Cost Estimates

Costs Summary				
Construction Options	Option 1 - Preferred	Option 2	Option 3	Option 4 - No Action
Description of Improvements	Full Reconstruction: water, septic, parking, restrooms, showers, boat launch, mooring, launch floats, mooring buoys, vendor operated	Partial Reconstruction: Parking, restroom, boat launch and launch float, seasonal vendor	Partial Reconstruction: Parking, restroom and boat launch	No Construction
MACC (Max. Allowable Const. Cost)	$5,958,000	$3,180,000	$2,591,000	$0
Total Project Cost	$8,242,000	$4,774,000	$3,969,000	$0
Annual Operations & Maintenance Cost	$118,000	$14,000	$11,500	$3,000
Annual Revenue (Vendor Operated)	$118,000	$0	$0	$0

Proposed Project Budget Timeline

Budget Timeline - Option 1, Preferred			
17-19	19-21	21-23	23-25
$88,000	$143,000	$840,000	$7,259,000
Feasibility Report	Predesign Report	Design and Permit Request	Construction Request

C-100 - Option 1, Preferred, Full Reconstruction

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY
Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Contact Information	
Name	Kristen Kuykendall
Phone Number	(360) 269-6433
Email	Kristen.kuykendall@dfw.wa.gov

Statistics			
Gross Square Feet		MACC per Square Foot	
Usable Square Feet		Escalated MACC per Square Foot	
Space Efficiency		A/E Fee Class	C
Construction Type	Civil Construction	A/E Fee Percentage	7.28%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	No
Inflation Rate	2.38%	Higher Ed Institution	No
Sales Tax Rate %	8.50%	Location Used for Tax Rate	Clallam County
Contingency Rate	4%		
Base Month	June-20	OFM UFI# (from FPMT, if available)	A26148
Project Administered By	Agency		

Schedule			
Predesign Start	July-19	Predesign End	June-20
Design Start	July-21	Design End	July-22
Construction Start	July-23	Construction End	September-24
Construction Duration	14 Months		

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Project Cost Estimate			
Total Project	$7,615,385	Total Project Escalated	$8,242,169
		Rounded Escalated Total	$8,242,000

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$221,000**	**Acquisition Subtotal Escalated**	**$221,000**

Consultant Services			
Predesign Services	$209,000		
A/E Basic Design Services	$285,655		
Extra Services	$72,000		
Other Services	$128,338		
Design Services Contingency	$27,800		
Consultant Services Subtotal	**$722,793**	**Consultant Services Subtotal Escalated**	**$755,811**

Construction			
Construction Contingencies	$218,720	Construction Contingencies Escalated	$238,427
Maximum Allowable Construction Cost (MACC)	$5,468,000	Maximum Allowable Construction Cost (MACC) Escalated	$5,957,673
Sales Tax	$483,371	Sales Tax Escalated	$526,669
Construction Subtotal	**$6,170,091**	**Construction Subtotal Escalated**	**$6,722,769**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$226,501		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$226,501**	**Project Administation Subtotal Escalated**	**$246,909**

Other Costs			
Other Costs Subtotal	**$275,000**	**Other Costs Subtotal Escalated**	**$295,680**

Project Cost Estimate			
Total Project	**$7,615,385**	Total Project Escalated	**$8,242,169**
		Rounded Escalated Total	**$8,242,000**

C-100 - Option 2, Partial Reconstruction

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY
Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Contact Information	
Name	Kristen Kuykendall
Phone Number	(360) 269-6433
Email	Kristen.kuykendall@dfw.wa.gov

Statistics			
Gross Square Feet		MACC per Square Foot	
Usable Square Feet		Escalated MACC per Square Foot	
Space Efficiency		A/E Fee Class	C
Construction Type	Civil Construction	A/E Fee Percentage	7.87%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	No
Inflation Rate	2.38%	Higher Ed Institution	No
Sales Tax Rate %	8.50%	Location Used for Tax Rate	Clallam County
Contingency Rate	4%		
Base Month	June-20	OFM UFI# (from FPMT, if available)	A26148
Project Administered By	Agency		

Schedule			
Predesign Start	July-19	Predesign End	June-20
Design Start	July-21	Design End	July-22
Construction Start	July-23	Construction End	September-24
Construction Duration	14 Months		

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Project Cost Estimate			
Total Project	$4,425,918	Total Project Escalated	$4,774,091
		Rounded Escalated Total	$4,774,000

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$221,000**	**Acquisition Subtotal Escalated**	**$221,000**

Consultant Services			
Predesign Services	$209,000		
A/E Basic Design Services	$164,851		
Extra Services	$62,500		
Other Services	$74,063		
Design Services Contingency	$20,417		
Consultant Services Subtotal	**$530,831**	**Consultant Services Subtotal Escalated**	**$553,355**

Construction			
Construction Contingencies	$116,760	Construction Contingencies Escalated	$127,281
Maximum Allowable Construction Cost (MACC)	$2,919,000	Maximum Allowable Construction Cost (MACC) Escalated	$3,180,126
Sales Tax	$258,040	Sales Tax Escalated	$281,130
Construction Subtotal	**$3,293,800**	**Construction Subtotal Escalated**	**$3,588,537**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$155,287		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$155,287**	**Project Administation Subtotal Escalated**	**$169,279**

Other Costs			
Other Costs Subtotal	**$225,000**	**Other Costs Subtotal Escalated**	**$241,920**

Project Cost Estimate			
Total Project	**$4,425,918**	Total Project Escalated	**$4,774,091**
		Rounded Escalated Total	**$4,774,000**

C-100 - Option 3, Partial Reconstruction

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY
Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Contact Information	
Name	Kristen Kuykendall
Phone Number	(360) 269-6433
Email	Kristen.kuykendall@dfw.wa.gov

Statistics			
Gross Square Feet		MACC per Square Foot	
Usable Square Feet		Escalated MACC per Square Foot	
Space Efficiency		A/E Fee Class	C
Construction Type	Civil Construction	A/E Fee Percentage	8.06%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	No
Inflation Rate	2.38%	Higher Ed Institution	No
Sales Tax Rate %	8.50%	Location Used for Tax Rate	Clallam County
Contingency Rate	4%		
Base Month	June-20	OFM UFI# (from FPMT, if available)	A26148
Project Administered By	Agency		

Schedule			
Predesign Start	July-19	Predesign End	June-20
Design Start	July-21	Design End	July-22
Construction Start	July-23	Construction End	September-24
Construction Duration	14 Months		

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Project Cost Estimate			
Total Project	$3,681,435	Total Project Escalated	$3,969,439
		Rounded Escalated Total	$3,969,000

STATE OF WASHINGTON

AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$171,000**	**Acquisition Subtotal Escalated**	**$171,000**

Consultant Services			
Predesign Services	$209,000		
A/E Basic Design Services	$137,540		
Extra Services	$50,000		
Other Services	$61,793		
Design Services Contingency	$18,333		
Consultant Services Subtotal	**$476,667**	**Consultant Services Subtotal Escalated**	**$496,388**

Construction			
Construction Contingencies	$95,120	Construction Contingencies Escalated	$103,691
Maximum Allowable Construction Cost (MACC)	$2,378,000	Maximum Allowable Construction Cost (MACC) Escalated	$2,590,545
Sales Tax	$210,215	Sales Tax Escalated	$229,011
Construction Subtotal	**$2,683,335**	**Construction Subtotal Escalated**	**$2,923,247**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$135,433		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$135,433**	**Project Administation Subtotal Escalated**	**$147,636**

Other Costs			
Other Costs Subtotal	**$215,000**	**Other Costs Subtotal Escalated**	**$231,168**

Project Cost Estimate			
Total Project	**$3,681,435**	Total Project Escalated	**$3,969,439**
		Rounded Escalated Total	**$3,969,000**

Proposed Funding

Funding Sources and Expected Receipt

Funding will be the result of a Capital funding request. The primary funding source would be State Building and Construction Account dollars.

The possibility exists of partial RCO funding up to $1M through the competitive grant process for a Boating Facilities Grant. Only portions of the property that are exclusive to boating use would qualify for this grant. Camping amenities would not be funded. This would require a capital match to complete the project.

Facility Operations and Maintenance Requirements

Define the anticipated impact of the proposed project on the operating budget for the agency. Include maintenance and operating assumptions (including FTE's)

Staffing Plan

The preferred option would require extensive maintenance. Maintenance for the site would include daily testing of the water system, cleaning and restocking of the restrooms multiple times during the day, landscaping care, and other routine cleaning. WDFW does not anticipate funding an FTE for the site, and instead incorporate a contracted vendor that would be able to live on-site, provide maintenance services, and collect fees. The fees collected would be calculated to cover maintenance expenses of the site. WDFW water access staff would supplement some basic maintenance activities under the existing operating budget. An additional operational budget request is not anticipated specifically for the Snow Creek Resort.

Operating Costs

Item	Annual % Quantity	Annual Cost	Amount	Total
WDFW Labor				$15,500
WDFW Vendor Management Lead	0.1	$90,000	$9,000	
WDFW Facility Technician	0.1	$65,000	$6,500	
Vendor / Caretaker Labor				$60,000
Facility Manager	1	$50,000	$50,000	
Seasonal Labor	1	$10,000	$10,000	
Equipment & Supplies				$5,000
Equipment / year	1	$3,000	$3,000	
Supplies / year	1	$2,000	$2,000	
Utilities				$17,400
Water System Testing / Reporting	1	$6,000	$6,000	
CXT Toilet Pump	1	$700	$700	
Power	1	$8,500	$8,500	
Telecom	1	$200	$200	
Garbage	1	$2,000	$2,000	
Maintenance				$20,410
Water System	1	$6,500	$6,500	
Septic System	1	$200	$200	
Pavement /Gravel	1	$3,000	$3,000	
Camp Sites	23	$30	$690	
Landscaping	1	$2,400	$2,400	
Building	3	$400	$1,200	
Float Installation / Removal	1	$4,000	$4,000	
Float Maintenance	1	$2,000	$2,000	
Buoy Maintenance	12	$35	$420	
Fence, Sign & Miscellaneous Maintenance	1	$1,000	$1,000	
		Total Annual Operating Costs		**$118,310**

Revenue

			Occupancy			
		Percent:	100%	50%	25%	
		Days/Season:	60	30	30	
Item	**Users/Day**	**Cost/Day**				**Revenue**
Boat Launch*	27	$20	$16,200	$4,050	$2,025	$22,275
RV Camping	15	$40	$36,000	$9,000	$4,500	$49,500
Dry Camping	8	$25	$12,000	$3,000	$1,500	$16,500
Float Moorage	23	$15	$20,700	$5,175	$2,588	$28,463
Air for Divers	2	$9	$1,080	$270	$135	$1,485

* Launch frequency/Day: 50%

Assumes 120-Day Open Season

Total Annual Revenue **$118,223**

Total Annual Operations Budget Impact **-$88**

5 Biennia of Capital and Operating Costs

Operating Budget

Biennium	Existing	Projected	Projected Revenue	Difference
21-23	$3,000	$3,000	$0	0
23-25	$3,120	$118,200	$118,200	(3,120)
25-27	$3,245	$122,928	$122,928	(3,245)
27-29	$3,375	$127,845	$127,845	(3,375)
29-31	$3,510	$132,958	$132,958	(3,510)
31-33	$3,650	$138,277	$138,277	(3,650)

Assumes 4% increase per Biennium

Furniture, Fixtures and Equipment

Furniture will not be included in the budget, as it is anticipated to be provided by the vendor. Fixtures and equipment such as, sinks, toilets and lights will be provided, as necessary for the functional operation of the facility. Equipment such as water treatment components and monitoring devices and communications equipment for electronic monitoring of the water and septic systems will be provided as a part of this project.

Appendix A - Pre-Design Checklist

2019-21 Biennium

PREDESIGN MANUAL

SECTION C

APPENDICES

Appendix 1: Predesign checklist and outline

A predesign should include the content detailed here. OFM will approve limited scope predesigns on a case-by-case basis.

- **Executive summary**
- **Problem statement, opportunity or program requirement**
  - ☑ Identify the problem, opportunity or program requirement that the project addresses and how it will be accomplished.
  - ☑ Identify and explain the statutory or other requirements that drive the project's operational programs and how these affect the need for space, location or physical accommodations. Include anticipated caseload projections (growth or decline) and assumptions, if applicable.
  - ☑ Explain the connection between the agency's mission, goals and objectives; statutory requirements; and the problem, opportunity or program requirements.
  - ☑ Describe in general terms what is needed to solve the problem.
  - ☑ Include any relevant history of the project, including previous predesigns or budget funding requests that did not go forward to design or construction.
- **Analysis of alternatives (including the preferred alternative)**
  - ☑ Describe all alternatives that were considered, including the preferred alternative. Include:
    - ☑ A no action alternative.
    - ☑ Advantages and disadvantages of each alternative. Please include a high-level summary table with your analysis that compares the alternatives, including the anticipated cost for each alternative.
    - ☑ Cost estimates for each alternative:
      - ☑ Provide enough information so decision makers have a general understanding of the costs.
      - ☑ Complete OFM's Life Cycle Cost Model (RCW 39.35B.050).
    - ☑ Schedule estimates for each alternative. Estimate the start, midpoint and completion dates.
- **Detailed analysis of preferred alternative**
  - ☑ Nature of space – how much of the proposed space will be used for what purpose (i.e., office, lab, conference, classroom, etc.)
  - ☑ Occupancy numbers.
  - ☑ Basic configuration of the building, including square footage and the number of floors.
  - ☑ Space needs assessment. Identify the guidelines used.
  - ☑ Site analysis:
    - ☑ Identify site studies that are completed or under way.
    - ☑ Location.

- ☑ Building footprint and its relationship to adjacent facilities and site features. Provide aerial view, sketches of the building site and basic floorplans.
- ☑ Stormwater requirements.
- ☑ Ownership of the site and any acquisition issues.
- ☑ Easements and setback requirements.
- ☑ Potential issues with the surrounding neighborhood, during construction and ongoing.
- ☑ Utility extension or relocation issues.
- ☑ Potential environmental impacts.
- ☑ Parking and access issues, including improvements required by local ordinances, local road impacts and parking demand.
- ☑ Impact on surroundings and existing development with construction lay-down areas and construction phasing.

☑ Consistency with applicable long-term plans (such as the Thurston County and Capitol campus master plans and agency or area master plans) as required by RCW 43.88.110.

☑ Consistency with other laws and regulations:

- ☑ High-performance public buildings (Chapter 39.35D RCW).
- ☑ State efficiency and environmental performance, if applicable (Executive Order 18-01).
- ☑ Greenhouse gas emissions reduction policy (RCW 70.235.070).
- ☑ Archeological and cultural resources (Executive Order 05-05 and Section 106 of the National Historic Preservation Act of 1966).
- ☑ Americans with Disabilities Act (ADA) implementation (Executive Order 96-04).
- ☑ Compliance with planning under Chapter 36.70A RCW, as required by RCW 43.88.0301.
- ☑ Information required by RCW 43.88.0301(1).
- ☑ Other codes or regulations.

☑ Identify problems that require further study. Evaluate identified problems to establish probable costs and risk.

☑ Identify significant or distinguishable components, including major equipment and ADA requirements in excess of existing code.

☑ Identify planned technology infrastructure and other related IT investments that affect the building plans.

☑ Describe planned commissioning to ensure systems function as designed.

☑ Describe any future phases or other facilities that will affect this project.

☑ Identify and justify the proposed project delivery method. For GC/CM, link to the requirements in RCW 39.10.340.

☑ Describe how the project will be managed within the agency.

☑ Schedule.

- ☑ Provide a high-level milestone schedule for the project, including key dates for budget approval, design, bid, acquisition, construction, equipment installation, testing, occupancy and full operation.
- ☑ Incorporate value-engineering analysis and constructability review into the project schedule, as required by RCW 43.88.110(5)(c).

- ☑ Describe factors that may delay the project schedule.
- ☑ Describe the permitting or local government ordinances or neighborhood issues (such as location or parking compatibility) that could affect the schedule.
- ☑ Identify when the local jurisdiction will be contacted and whether community stakeholder meetings are a part of the process.

❖ **Project budget analysis for the preferred alternative**

- ☑ Cost estimate.
  - ☑ Major assumptions used in preparing the cost estimate.
  - ☑ Summary table of Uniformat Level II cost estimates.
  - ☑ The C-100.
- ☑ Proposed funding.
  - ☑ Identify the fund sources and expected receipt of the funds.
  - ☑ If alternatively financed, such as through a COP, provide the projected debt service and fund source. Include the assumptions used for calculating finance terms and interest rates.
- ☑ Facility operations and maintenance requirements.
  - ☑ Define the anticipated impact of the proposed project on the operating budget for the agency or institution. Include maintenance and operating assumptions (including FTEs).
  - ☑ Show five biennia of capital and operating costs from the time of occupancy, including an estimate of building repair, replacement and maintenance.
- ☑ Clarify whether furniture, fixtures and equipment are included in the project budget. If not included, explain why.

❖ **Predesign appendices**

- ☑ Completed Life Cycle Cost Model.
- ☑ A letter from DAHP.

Appendix B – Compiled Life Cycle Cost Model

Life Cycle Cost Analysis - Project Summary

Agency	Washington Department of Fish and Wildlife
Project Title	Snow Creek Resort Renovation

Existing Description	Renovating the site of an existing boat launch including camping and moorage. Site is already owned by WDFW and alternative lease sites are not applicable. Existing site has been closed due to safety deficiencies.

Lease Option 1 Description	Not Applicable, existing site development

Lease Option 2 Description	Not applicable, existing site development

Ownership Option 1 Description	Snow Creek Reconstruct Facility - Reconstruction of the Resort including RV and tent camping, water and septic systems, restrooms and showers, mooring floats, boat launch, launch floats and parking facilities. Elevated boat ramp with floats is primary construction component.

Ownership Option 2 Description	Snow Creek Reconstruct Facility - Option 2. Reconstruction of the Snow Creek Resort including boat launch, launch floats, restrooms, and parking facilities.

Ownership Option 3 Description	Snow Creek Reconstruct Facility - Option 3. Reconstruct the Snow Creek Resort including, boat launch, restrooms and parking facilities.

Lease Options Information	**Existing Lease**	**Lease Option 1**	**Lease Option 2**
Total Rentable Square Feet	-	-	-
Annual Lease Cost (Initial Term of Lease)	$ -	$ -	$ -
Full Service Cost/SF (Initial Term of Lease)	$ -	$ -	$ -
Occupancy Date	n/a		
Project Initial Costs	n/a	$ -	$ -
Persons Relocating	-	-	-
RSF/Person Calculated			

Ownership Information	**Ownership 1**	**Ownership 2**	**Ownership 3**
Total Gross Square Feet	120,670	96,256	96,256
Total Rentable Square Feet	120,670	96,255	96,255
Occupancy Date	3/31/2025	3/31/2025	3/31/2025
Initial Project Costs	$ -	$ -	$ -
Est Construction TPC ($/GSF)	$ 80	$ 58	$ 48
RSF/Person Calculated	-	-	-

Financial Analysis of Options

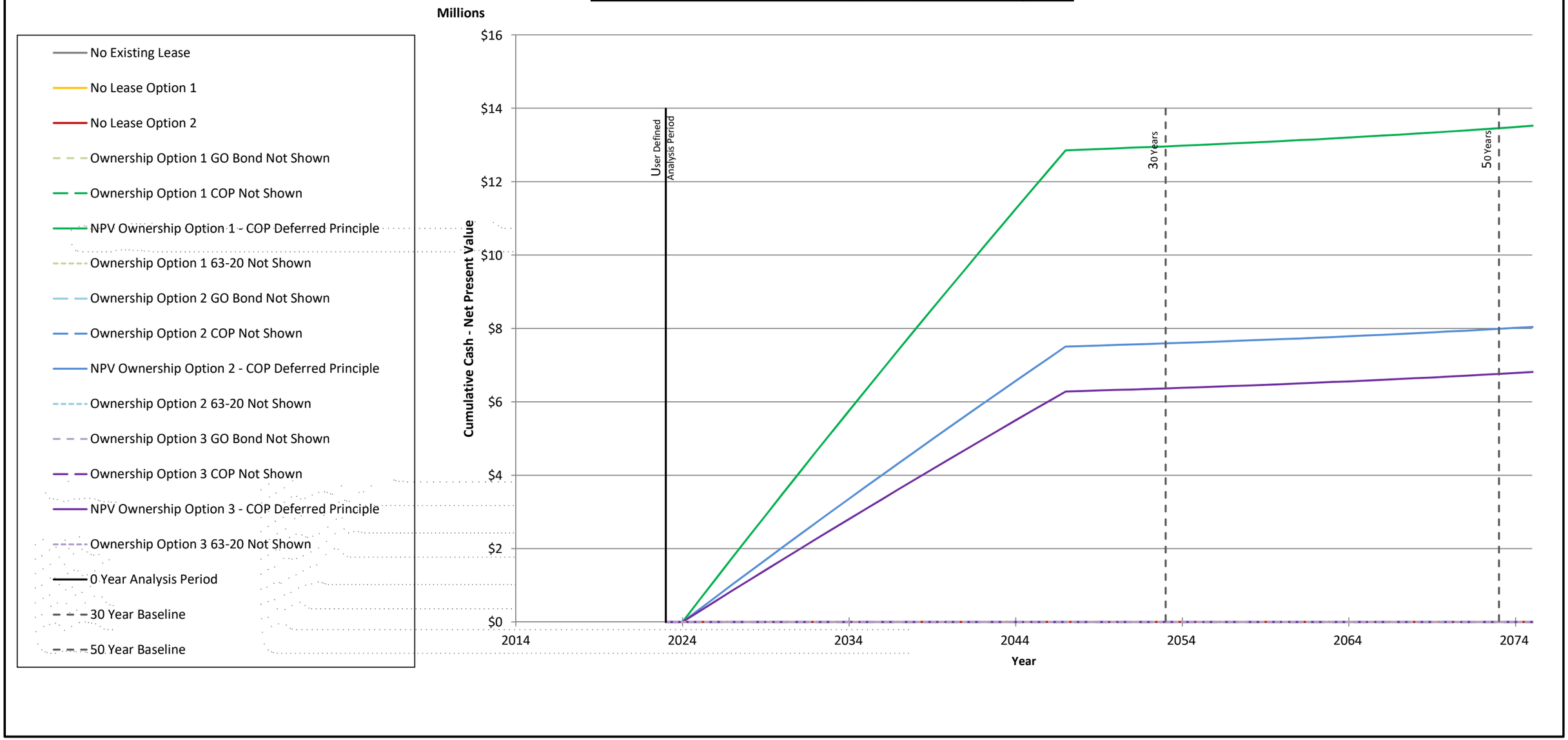
	Display Option?	Yes	Yes	Yes	No	No	Yes	No	No	No	Yes	No	No	No	Yes	No
	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
0	0 Year Cumulative Cash	$ -	$ -	$ -			$ -				$ -				$ -	
	0 Year Net Present Value	$ -	$ -	$ -			$ -				$ -				$ -	
	Lowest Cost Option (Analysis Period)															

	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
30	30 Year Cumulative Cash	$ -	$ -	$ -			$ 13,900,916				$ 8,141,215				$ 6,824,083	
	30 Year Net Present Value	$ -	$ -	$ -			$ 12,942,624				$ 7,578,106				$ 6,350,936	
	Lowest Cost Option (30 Years)						**3**				**2**				**1**	

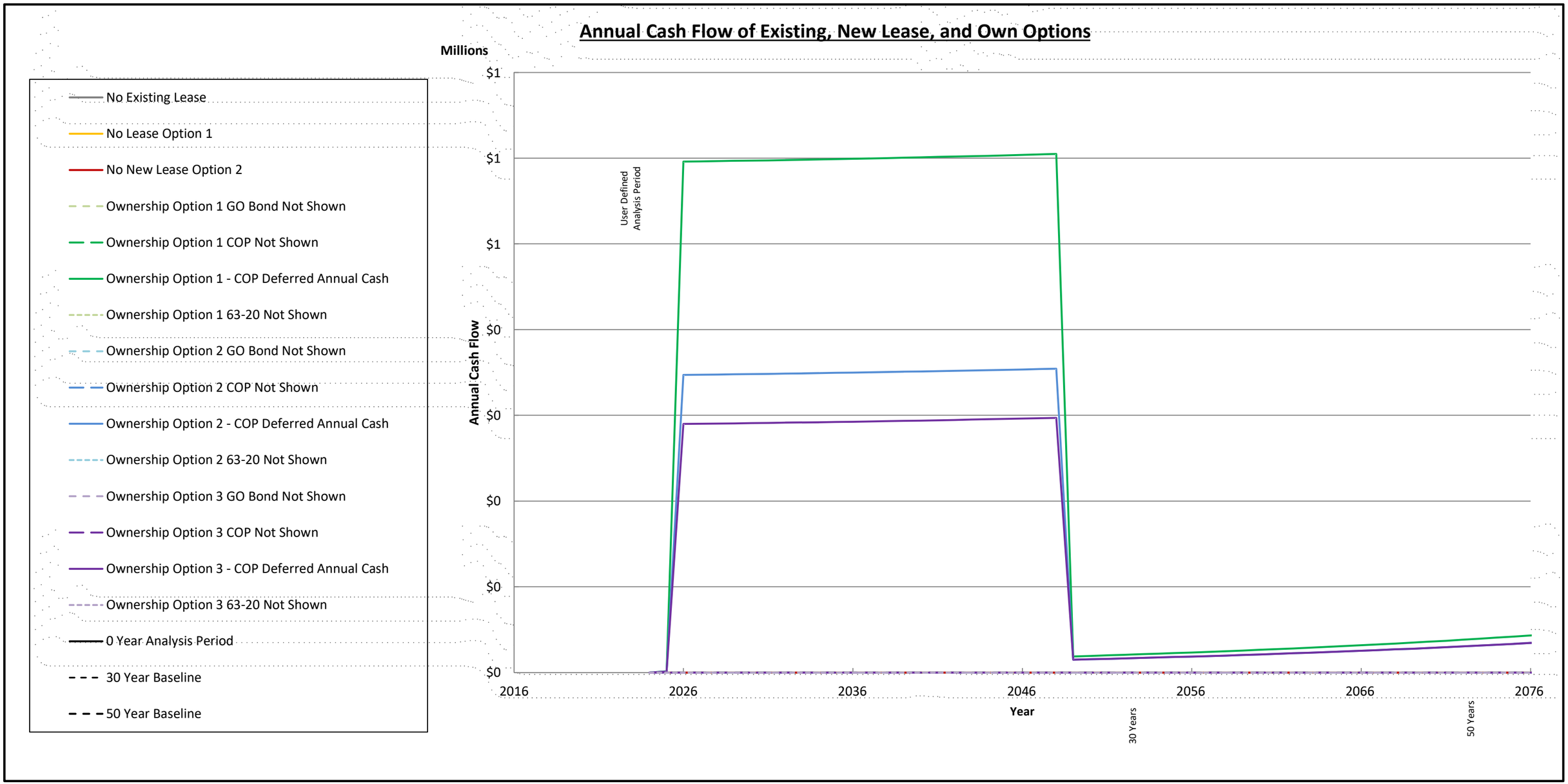
	Financial Comparisons	**Existing Lease**	**Lease 1**	**Lease 2**	**Ownership 1**				**Ownership 2**				**Ownership 3**			
Years	**Financing Means**	**Current**	**Current**	**Current**	**GO Bond**	**COP**	**COP Deferred ***	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**	**GO Bond**	**COP**	**COP Deferred**	**63-20**
50	50 Year Cumulative Cash	$ -	$ -	$ -			$ 14,500,778				$ 8,619,712				$ 7,302,581	
	50 Year Net Present Value	$ -	$ -	$ -			$ 13,425,226				$ 7,963,068				$ 6,735,898	
	Lowest Cost Option (50 Years)						**3**				**2**				**1**	

** - Defers payment on principle for 2 years while the building is being constructed. See instructions on Capitalized Interest.*

Cumulative Cash - NPV of Exist, Lease, and Own Options



Annual Cash Flow of Existing, New Lease, and Own Options



Financial Assumptions

Date of Life Cycle Cost Analysis:	6/11/2020
Analysis Period Start Date	4/1/2023
User Input Years of Analysis	0

All assumptions subject to change to reflect updated costs and conditions.

	Lease Options			Ownership Option 1			Ownership Option 2			Ownership Option 3		
	Existing Lease	**Lease Option 1**	**Lease Option 2**	**GO Bond**	**COP**	**63-20**	**GO Bond**	**COP**	**63-20**	**GO Bond**	**COP**	**63-20**
Inflation / Interest Rate	3.120%	3.120%	3.120%	3.540%	3.720%	3.720%	3.540%	3.720%	3.720%	3.540%	3.720%	3.720%
Discount Rate	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%	0.533%
Length of Financing	N/A	N/A	N/A	25	25	25	25	25	25	25	25	25

See Financial Assumptions tab for more detailed information

COP Deferred and 63-20 Financing defer the payment on principle until construction completion.

New Lease Assumptions

Real Estate Transaction fees are 2.5% of the lease for the first 5 years and 1.25% for each year thereafter in the initial term of the lease.

Tenant Improvements are typically estimated at $15 per rentable square foot.

IT infrastructure is typically estimated at $350 per person.

Furniture costs are typically estimated at $500 per person and do not include new workstations.

Moving Vendor and Supplies are typically estimated at $205 per person.

Default Ownership Options Assumptions

Assumes a 2 month lease to move-in overlap period for outfitting building and relocation.

Assumes surface parking.

The floor plate of the construction option office building is 1 gross square feet.

The estimated total project cost for construction is $63.00 per square foot.

See the Capital Construction Defaults tab for more construction assumptions.

Ownership Option 1 Information Sheet

*	***Requires a user input***	*Green Cell*	*= Value can be entered by user.*	*Yellow Cell*

*	**Project Description**	Snow Creek Reconstruct Facility - Reconstruction of the Resort including RV and tent camping, water and septic systems, restrooms and showers, mooring floats, boat launch, launch floats and parking facilities. Elevated boat ramp with floats is primary construction component.
*	**Construction or Purchase/Remodel**	Construction
*	**Project Location**	Neah Bay — Market Area = Southwest Counties

	Statistics	
*	Gross Sq Ft	120,670
*	Usable Sq Ft	120,670
	Space Efficiency	100%
	Estimated Acres Needed	4.00
	MACC Cost per Sq Ft	$49.37
	Estimated Total Project Costs per Sq Ft	$68.30
	Escalated MACC Cost per Sq Ft	$57.57
	Escalated Total Project Costs per Sq Ft	$79.64

*	**Move In Date**	3/31/2025

Interim Lease Information	**Start Date**
Lease Start Date	
Length of Lease (in months)	
Square Feet (holdover/temp lease)	
Lease Rate- Full Serviced ($/SF/Year)	
One Time Costs (if double move)	

	Construction Cost Estimates (See Capital Budget System For Detail)			
		Known Costs	Estimated Costs	Cost to Use
	Acquisition Costs Total	$ 221,000	$ -	$ 221,000
A & E	**Consultant Services**			
	A & E Fee Percentage (if services not specified)	7.28%	8.41% Std	7.28%
	Pre-Schematic Design services	$ 214,393		
	Construction Documents	$ 296,482		
	Extra Services	$ 74,729		
	Other Services	$ 139,902		
	Design Services Contingency	$ 30,305		
	Consultant Services Total	$ 755,811	$ 540,413	$ 755,811
MACC	**Construction Contracts**			
	Site Work	$ 205,364		
	Related Project Costs	$ 10,752		
	Facility Construction	$ 5,741,557		
	MACC SubTotal	$ 5,957,673	$ 5,430,150	$ 5,957,673
	Construction Contingency (5% default)	$ 238,427	$ 297,884	$ 238,427
	Non Taxable Items	$ -		$ -
	Sales Tax	$ 526,669		$ 526,669
	Construction Additional Items Total	$ 765,096	$ 297,884	$ 765,096
	Equipment			
	Equipment			
	Non Taxable Items			
	Sales Tax			
	Equipment Total	$ -		$ -
	Art Work Total	$ 0	$ 29,788	$ 0
	Other Costs			
	Mitigation / Hazmat / Historic & Archeological Mit.	$ 295,680		
		$ -		
		$ -		
	Other Costs Total	$ 295,680		$ 295,680
	Project Management Total	$ 246,909		$ 246,909
	Grand Total Project Cost	**$ 8,242,169**	**$ 6,298,235**	**$ 8,242,169**

Construction One Time Project Costs			
One Time Costs	Estimate	Calculated	
Moving Vendor and Supplies		$ -	*$205 / Person in FY09*
Other (not covered in construction)			
Total	$ -	$ -	

	Ongoing Building Costs				
Added Services	New Building Operating Costs	Known Cost /GSF/ 2025	Estimated Cost /GSF/ 2025	Total Cost / Year	Cost / Month
☐	Energy (Electricity. Natural Gas)	$ -	$0.00	$ -	$ -
☐	Janitorial Services	$ -	$0.00	$ -	$ -
☐	Utilities (Water, Sewer, & Garbage)	$ -	$0.00	$ -	$ -
☑	Grounds	$ -	$ 0.08	$ 9,258	$ 771
☐	Pest Control	$ -	$0.00	$ -	$ -
☐	Security	$ -	$0.00	$ -	$ -
☐	Maintenance and Repair	$ -	$0.00	$ -	$ -
☐	Management	$ -	$0.00	$ -	$ -
☐	Road Clearance	$ -	$0.00	$ -	$ -
☐	Telecom	$ -	$0.00	$ -	$ -
	Additional Parking	$ -	$ -	$ -	$ -
	Other	$ -	$ -	$ -	$ -
	Total Operating Costs	**$ -**	**$ 0.08**	**$ 9,258**	**$ 771**

= Calculated value.

Ownership Option 2 Information Sheet

*	***Requires a user input***	*Green Cell*	*= Value can be entered by user.*	*Yellow Cell*

*	**Project Description**	Snow Creek Reconstruct Facility - Option 2. Reconstruction of the Snow Creek Resort including boat launch, launch floats, restrooms, and parking facilities.

*	**Construction or Purchase/Remodel**	Construction

*	**Project Location**	Neah Bay	Market Area = Southwest Counties

	Statistics	
*	Gross Sq Ft	96,256
*	Usable Sq Ft	96,255
	Space Efficiency	100%
	Estimated Acres Needed	3.00
	MACC Cost per Sq Ft	$33.04
	Estimated Total Project Costs per Sq Ft	$49.60
	Escalated MACC Cost per Sq Ft	$38.52
	Escalated Total Project Costs per Sq Ft	$57.83

*	**Move In Date**	3/31/2025

Interim Lease Information	**Start Date**
Lease Start Date	
Length of Lease (in months)	
Square Feet (holdover/temp lease)	
Lease Rate- Full Serviced ($/SF/Year)	
One Time Costs (if double move)	

	Construction Cost Estimates (See Capital Budget System For Detail)			
		Known Costs	Estimated Costs	Cost to Use
	Acquisition Costs Total	$ 221,000	$ -	$ 221,000
A & E	**Consultant Services**			
	A & E Fee Percentage (if services not specified)	7.87%	9.07% Std	7.87%
	Pre-Schematic Design services	$ 214,393		
	Construction Documents	$ 171,099		
	Extra Services	$ 64,869		
	Other Services	$ 80,737		
	Design Services Contingency	$ 22,257		
	Consultant Services Total	$ 553,355	$ 288,465	$ 553,355
MACC	**Construction Contracts**			
	Site Work	$ 124,724		
	Related Project Costs	$ 10,752		
	Facility Construction	$ 3,044,650		
	MACC SubTotal	$ 3,180,126	$ 4,331,520	$ 3,180,126
	Construction Contingency (5% default)	$ 127,281	$ 127,281	$ 127,281
	Non Taxable Items	$ -		$ -
	Sales Tax	$ 281,130		$ 281,130
	Construction Additional Items Total	$ 408,411	$ 408,411	$ 408,411
	Equipment			
	Equipment	$ -		
	Non Taxable Items	$ -		
	Sales Tax	$ -		
	Equipment Total	$ -		$ -
	Art Work Total	$ 0	$ 15,901	$ 0
	Other Costs			
	Mitigation/Hazmat/Historic & Archeological Mit.	$ 241,920		
	Other Costs Total	$ 241,920		$ 241,920
	Project Management Total	$ 169,279		$ 169,279
	Grand Total Project Cost		**$ 5,044,297**	**$ 4,774,091**

Construction One Time Project Costs			
One Time Costs	Estimate	Calculated	
Moving Vendor and Supplies	$ -	$ -	*$205 / Person in FY09*
Other (not covered in construction)	$ -		
Total	$ -	$ -	

	Ongoing Building Costs				
Added Services	New Building Operating Costs	Known Cost /GSF/ 2025	Estimated Cost /GSF/ 2025	Total Cost / Year	Cost / Month
☐	**Energy (Electricity. Natural Gas)**	$ -	$0.00	$ -	$ -
☐	**Janitorial Services**	$ -	$0.00	$ -	$ -
☐	**Utilities (Water, Sewer, & Garbage)**	$ -	$0.00	$ -	$ -
☑	**Grounds**	$ -	$ 0.08	$ 7,385	$ 615
☐	**Pest Control**	$ -	$0.00	$ -	$ -
☐	**Security**	$ -	$0.00	$ -	$ -
☐	**Maintenance and Repair**	$ -	$0.00	$ -	$ -
☐	**Management**	$ -	$0.00	$ -	$ -
☐	**Road Clearance**	$ -	$0.00	$ -	$ -
☐	**Telecom**	$ -	$0.00	$ -	$ -
	Additional Parking	$ -	$ -	$ -	$ -
	Other	$ -	$ -	$ -	$ -
	Total Operating Costs	**$ -**	**$ 0.08**	**$ 7,385**	**$ 615**

= Calculated value.

Ownership Option 3 Information Sheet

*	***Requires a user input***	*Green Cell*	*= Value can be entered by user.*	*Yellow Cell*

*	**Project Description**	Snow Creek Reconstruct Facility - Option 3. Reconstruct the Snow Creek Resort including, boat launch, restrooms and parking facilities.

*	**Construction or Purchase/Remodel**	Construction

*	**Project Location**	Neah Bay	Market Area = Southwest Counties

	Statistics	
*	Gross Sq Ft	96,256
*	Usable Sq Ft	96,255
	Space Efficiency	100%
	Estimated Acres Needed	3.00
	MACC Cost per Sq Ft	$26.91
	Estimated Total Project Costs per Sq Ft	$41.24
	Escalated MACC Cost per Sq Ft	$31.38
	Escalated Total Project Costs per Sq Ft	$48.09

*	**Move In Date**	3/31/2025

Interim Lease Information	**Start Date**
Lease Start Date	
Length of Lease (in months)	
Square Feet (holdover/temp lease)	
Lease Rate- Full Serviced ($/SF/Year)	
One Time Costs (if double move)	

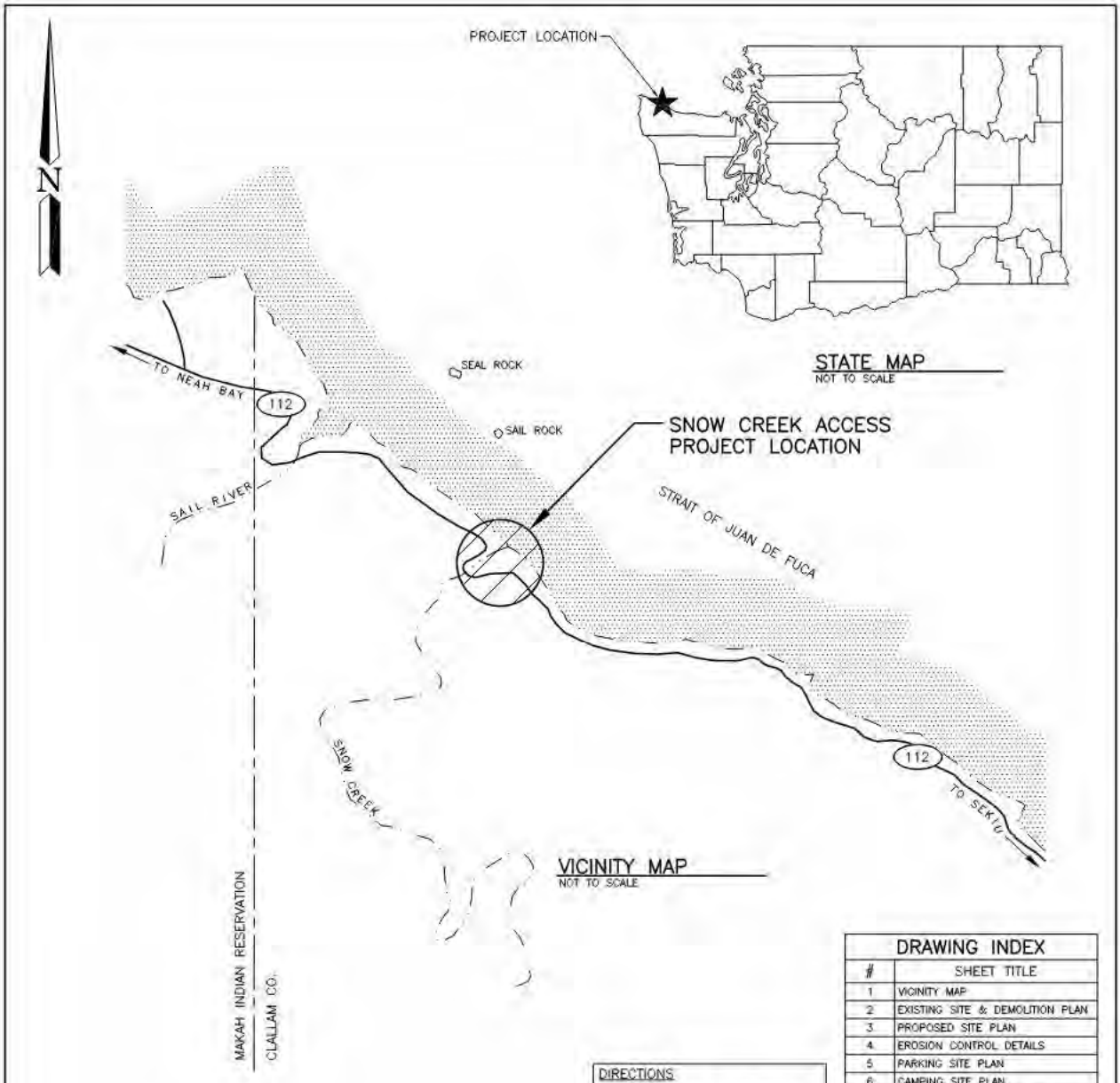
	Construction Cost Estimates (See Capital Budget System For Detail)			
		Known Costs	Estimated Costs	Cost to Use
	Acquisition Costs Total	$ 171,000	$ -	$ 171,000
A & E	**Consultant Services**			
	A & E Fee Percentage (if services not specified)	8.06%	9.28% Std	8.06%
	Pre-Schematic Design services	$ 214,393		
	Construction Documents	$ 142,753		
	Extra Services	$ 51,895		
	Other Services	$ 67,361		
	Design Services Contingency	$ 19,986		
	Consultant Services Total	$ 496,388	$ 240,280	$ 496,388
MACC	**Construction Contracts**			
	Site Work	$ 112,896		
	Related Project Costs	$ 10,752		
	Facility Construction	$ 2,466,897		
	MACC SubTotal	$ 2,590,545	$ 4,331,520	$ 2,590,545
	Construction Contingency (5% default)	$ 103,691	$ 103,691	$ 103,691
	Non Taxable Items	$ -		$ -
	Sales Tax	$ 229,011		$ 229,011
	Construction Additional Items Total	$ 332,702	$ 332,702	$ 332,702
	Equipment			
	Equipment	$ -		
	Non Taxable Items	$ -		
	Sales Tax			
	Equipment Total	$ -		$ -
	Art Work Total	$ 0	$ 12,953	$ 0
	Other Costs			
	Mitigation/Hazmat/Historic & Archeological Mit.	$ 231,168		
	Other Costs Total	$ 231,168		$ 231,168
	Project Management Total	$ 147,636		$ 147,636
	Grand Total Project Cost		**$ 4,917,455**	**$ 3,969,439**

Construction One Time Project Costs			
One Time Costs	Estimate	Calculated	
Moving Vendor and Supplies		$ -	*$205 / Person in FY09*
Other (not covered in construction)			
Total	$ -	$ -	

	Ongoing Building Costs				
Added Services	New Building Operating Costs	Known Cost /GSF/ 2025	Estimated Cost /GSF/ 2025	Total Cost / Year	Cost / Month
☐	**Energy (Electricity. Natural Gas)**	$ -	$0.00	$ -	$ -
☐	**Janitorial Services**	$ -	$0.00	$ -	$ -
☐	**Utilities (Water, Sewer, & Garbage)**	$ -	$0.00	$ -	$ -
☑	**Grounds**	$ -	$ 0.08	$ 7,385	$ 615
☐	**Pest Control**	$ -	$0.00	$ -	$ -
☐	**Security**	$ -	$0.00	$ -	$ -
☐	**Maintenance and Repair**	$ -	$0.00	$ -	$ -
☐	**Management**	$ -	$0.00	$ -	$ -
☐	**Road Clearance**	$ -	$0.00	$ -	$ -
☐	**Telecom**	$ -	$0.00	$ -	$ -
	Additional Parking	$ -	$ -	$ -	$ -
	Other	$ -	$ -	$ -	$ -
	Total Operating Costs	**$ -**	**$ 0.08**	**$ 7,385**	**$ 615**

= Calculated value.

Appendix C – Preferred Option Plans



DRAWING INDEX	
#	SHEET TITLE
1	VICINITY MAP
2	EXISTING SITE & DEMOLITION PLAN
3	PROPOSED SITE PLAN
4	EROSION CONTROL DETAILS
5	PARKING SITE PLAN
6	CAMPING SITE PLAN
7	PARKING DETAILS & SIGNAGE
8	CONSTRUCTION DETAILS
9	CXT DOUBLE TOILET
10	CXT DOUBLE TOILET / SHOWER
11-24	BOATING FACILITY PLAN SET

DIRECTIONS

FROM PORT ANGELES HEAD WEST ON US-101 FOR ~ 4.2 MI
TURN RIGHT ONTO WA-112 W
FOLLOW FOR ~ 38.1 MI
TURN RIGHT AT JUNCTION AND STAY ON WA-112 W FOLLOW FOR ~ 22.3 MI
DESTINATION WILL BE ON THE RIGHT

ENG. PROJECT NO. CM:A664:2019-1

PORTION OF: SEC. 17, T33N, R14W

DRAWN BY: J. LONG

REFERENCE NUMBER:

APPLICANT:
WASHINGTON DEPT. of FISH & WILDLIFE
600 CAPITOL WAY N.
OLYMPIA, WA 98501-1091

ADJACENT PROPERTY OWNER:
1. PACIFIC WEST TIMBER COMPANY
2. WDFW

PROJECT LOCATION (ADDRESS):
SNOW CREEK RESORT
691 HWY 112
NEAH BAY, WA 98357

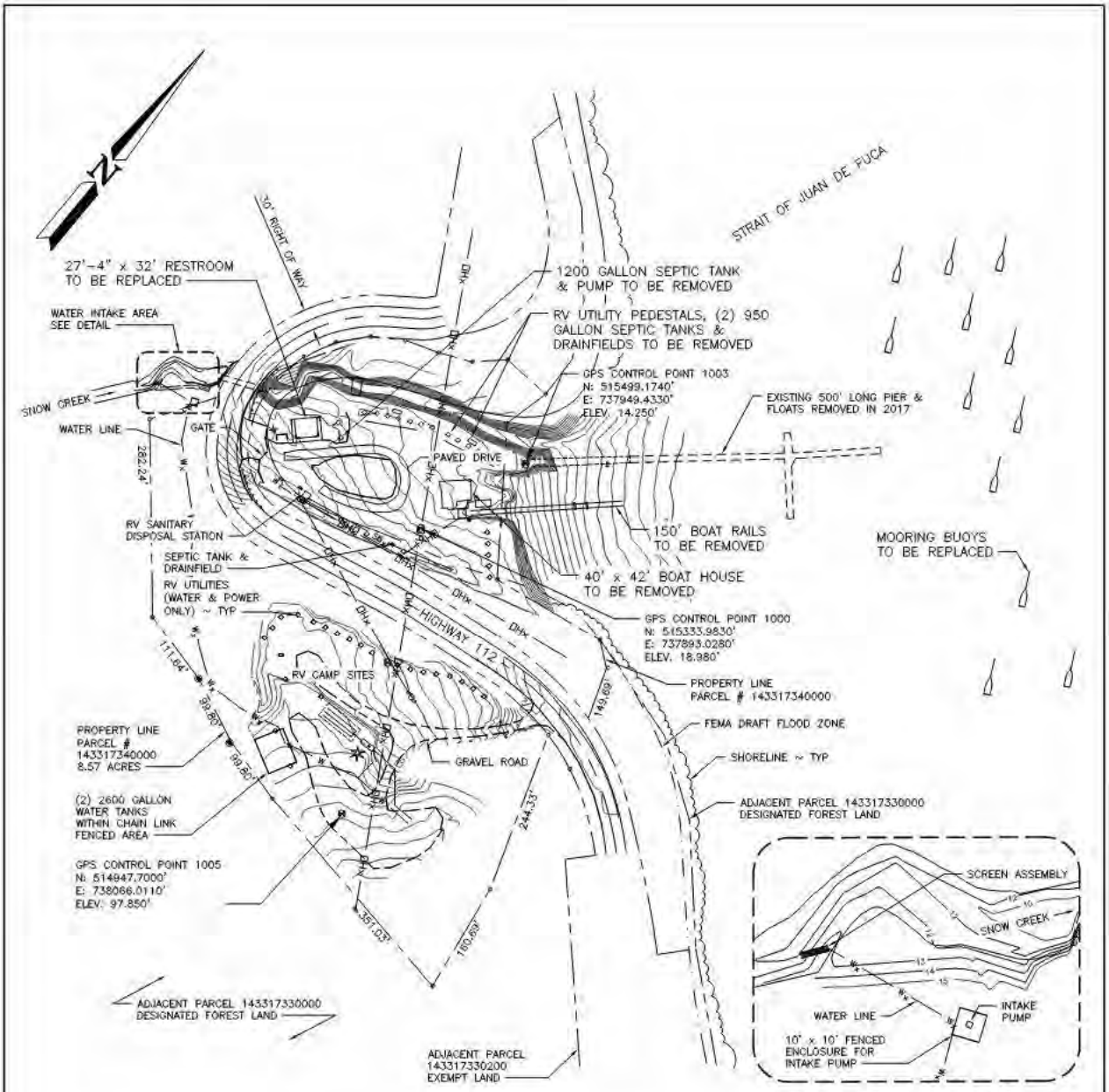
LAT/LONG: N 48° 21' 12.56"
W 124° 32' 47.18"

DATUM: NAVD 88

SHEET 1 OF 24 DATE: 12/20/2019

PROPOSED PROJECT:
SNOW CREEK RESORT
REPAIR & MAINTENANCE

IN: STRAIT OF JUAN DE FUCA
NEAR/AT: NEAH BAY, WA
COUNTY: CLALLAM
STATE: WA



WATER INTAKE DETAIL

SCALE: 1" = 50'

NOTE:
IMPROVE EXISTING SCREEN & INTAKE PER DOH, NOAA & WDFW STANDARDS

0 100 200
50 150 300
SCALE: 1" = 200'

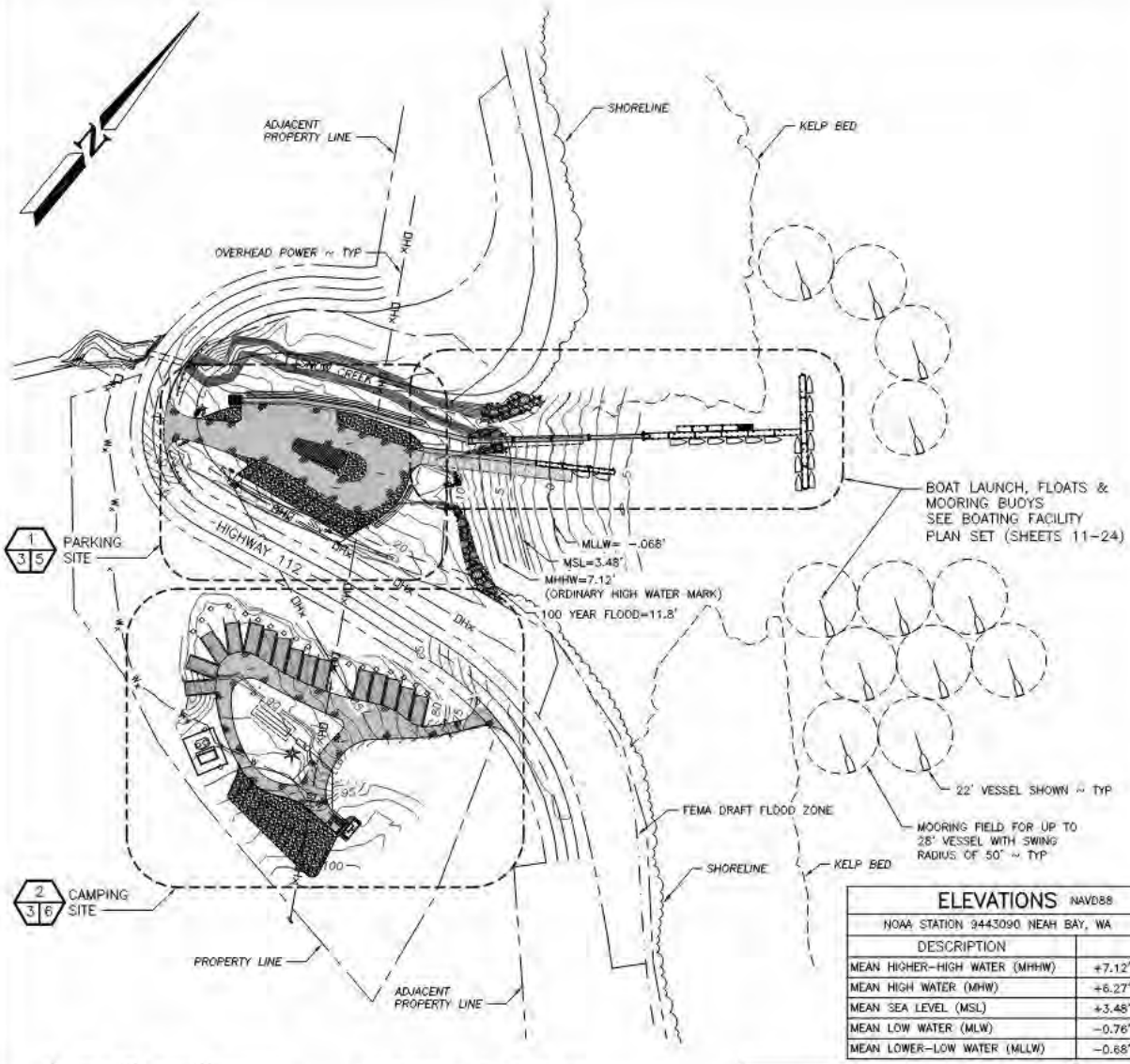
EXISTING SITE & DEMOLITION PLAN

SCALE: 1" = 200'

REFERENCE NUMBER:
APPLICANT NAME:
WASHINGTON DEPT. of FISH & WILDLIFE
PROPOSED PROJECT:
REPAIR & MAINTENANCE
LOCATION: SNOW CREEK RESORT
SHEET 2 OF 24 DATE: 12/20/2019

ENG. PROJECT NO. CM:A664:2019-1

DRAWN BY: J. LONG



0 100 200
50 150 300
SCALE: 1" = 200'

PROPOSED SITE PLAN

SCALE: 1" = 200'

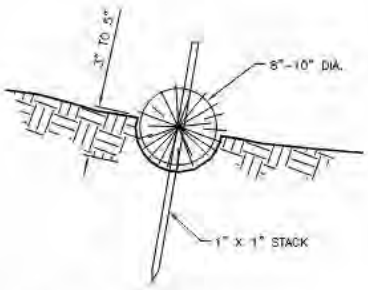
ELEVATIONS NAVD88	
NOAA STATION 9443090 NEAH BAY, WA	
DESCRIPTION	
MEAN HIGHER-HIGH WATER (MHHW)	+7.12'
MEAN HIGH WATER (MHW)	+6.27'
MEAN SEA LEVEL (MSL)	+3.48'
MEAN LOW WATER (MLW)	-0.76'
MEAN LOWER-LOW WATER (MLLW)	-0.68'

QUANTITIES (IN CUBIC YARDS)				
MATERIALS	CUT BELOW OHW	FILL BELOW OHW	CUT ABOVE OHW	FILL ABOVE OHW
PARKING SITE CSBC	-	-	429	423
PARKING SITE CSTC	-	-	320	299
PARKING SITE ASPHALT	-	-	220	228
CAMPING SITE CSBC	-	-	480	470
CAMPING SITE CSTC	-	-	295	264
CAMPING SITE ASPHALT	-	-	262	253
BOAT LAUNCH ABUTMENT	-	-	120	120
PIER ABUTMENT	-	-	30	30
NET TOTAL	-	-	2156	2087

IMPERVIOUS SURFACES		
SURFACE	SQ. FT.	IMPERVIOUS %
PARCEL AREA 8.42 ACRES	367,039	-
EXISTING ASPHALT	4,355	-
EXISTING GRAVEL	54,010	-
TOTAL EXISTING IMPERVIOUS	58,365	14.7 %
PROPOSED ASPHALT	48,820	-
PROPOSED GRAVEL	21,737	-
TOTAL PROPOSED IMPERVIOUS	70,557	19.2 %

REFERENCE NUMBER:
APPLICANT NAME:
WASHINGTON DEPT. of FISH & WILDLIFE
PROPOSED PROJECT:
REPAIR & MAINTENANCE
LOCATION: SNOW CREEK RESORT
SHEET 3 OF 24 DATE: 12/20/2019

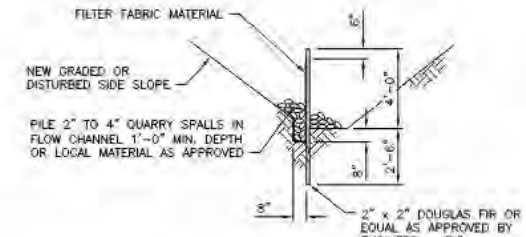
ENG. PROJECT NO. CM:A664:2019-1
DRAWN BY: J. LONG



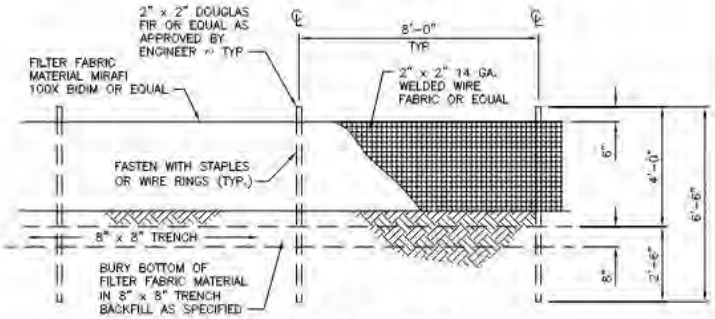
STRAW WATTLE DETAIL
NOT TO SCALE

CONSTRUCTION SPECIFICATIONS:

1. PREPARE THE SLOPE BEFORE THE WATTLING PROCEDURE IS STARTED.
2. SHALLOW GULLIES SHOULD BE SMOOTHED AS WORK PROGRESSES.
3. DIG SMALL TRENCHES ACROSS THE SLOPE ON CONTOUR, TO PLACE ROLLS IN. THE TRENCH SHOULD BE DEEP ENOUGH TO ACCOMMODATE HALF THE THICKNESS OF THE ROLL. WHEN THE SOIL IS LOOSE AND UNCOMPACTED, THE TRENCH SHOULD BE DEEP ENOUGH TO BURY THE ROLL 2/3 OF ITS THICKNESS BECAUSE THE GROUND WILL SETTLE.
4. IT IS CRITICAL THAT ROLLS ARE INSTALLED PERPENDICULAR TO WATER MOVEMENT, PARALLEL TO THE SLOPE CONTOUR.
5. START BUILDING TRENCHES AND INSTALL ROLLS FROM THE BOTTOM OF THE SLOPE AND WORK UP.
6. CONSTRUCT TRENCHES AT CONTOUR INTERVALS OF 3-12 FEET APART DEPENDING ON STEEPNESS OF SLOPE. THE STEEPER THE SLOPE, THE CLOSER TOGETHER THE TRENCHES. 1:1=10' 2:1=20' 3:1=30' 4:1=40'
7. LAY THE ROLL ALONG THE TRENCHES FITTING IT SNUGLY AGAINST THE SOIL. MAKE SURE NO GAPS EXIST BETWEEN THE SOIL AND THE STRAW WATTLE.
8. USE A STRAIGHT BAR TO DRIVE HOLES THROUGH THE WATTLE AND INTO THE SOIL FOR THE WILLOW OR WOODEN STAKES.
9. DRIVE THE STAKE THROUGH PREPARED HOLE INTO SOIL. LEAVE ONLY 1 OR 2 INCHES OF STAKE EXPOSED ABOVE ROLL.
10. IF USING WILLOW STAKES REFER TO LIVE STAKING BEST MANAGEMENT PRACTICES.
11. INSTALL STAKES AT LEAST EVERY 4 FEET APART THROUGH THE WATTLE. ADDITIONAL STAKES MAY BE DRIVEN ON THE DOWNSLOPE SIDE OF THE TRENCHES ON HIGHLY EROSIVE OR VERY STEEP SLOPES.
12. INSPECT THE STRAW ROLLS AND THE SLOPES AFTER SIGNIFICANT STORMS. MAKE SURE THE ROLLS ARE IN CONTACT WITH THE SOIL.
13. REPAIR ANY RILLS OR GULLYS PROMPTLY.
14. RESEED OR REPLANT VEGETATION IF NECESSARY UNTIL THE SLOPE IS STABILIZED.



SECTION



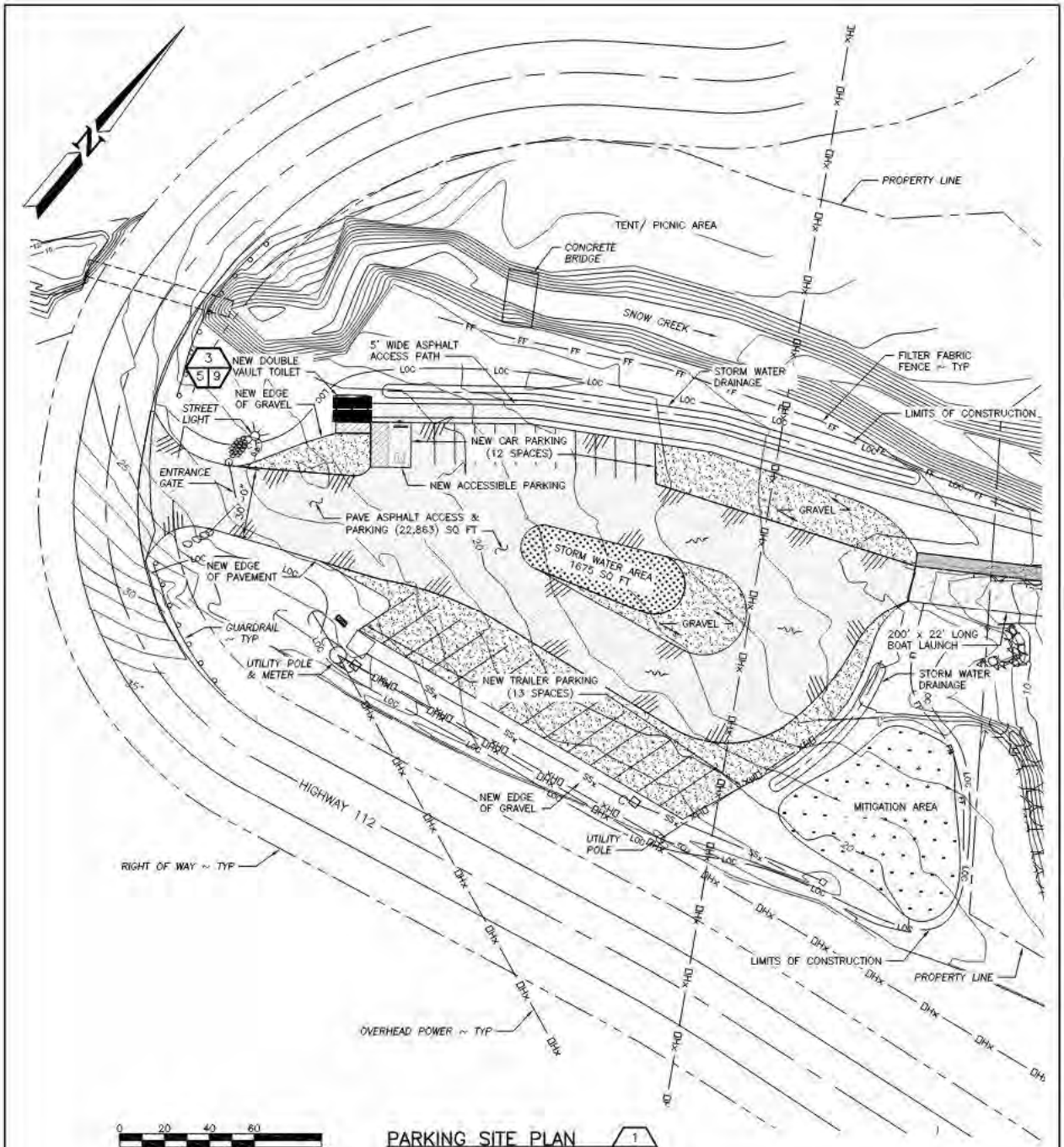
FILTER FABRIC FENCE
NOT TO SCALE

FILTER FABRIC NOTES:

1. FILTER FABRIC SHALL BE PURCHASED CONTINUOUS ROLL CUT TO LENGTH OF BARRIER AS NEEDED. IF JOINTS ARE NECESSARY FABRIC SHALL BE SPLICED TOGETHER ONLY AT SUPPORT POSTS WITH A MINIMUM OF (6) INCH OVERLAP. BOTH ENDS SHALL BE SECURED AS REQUIRED.
2. FILTER FABRIC SHALL BE INSTALLED TO FOLLOW CONTOURS. FENCE POSTS SHALL BE SPACED A MAXIMUM OF EIGHT (8) FEET APART UNLESS OTHERWISE SHOWN HEREIN. ALL POSTS SHALL BE DRIVEN INTO THE GROUND A MINIMUM OF 30 INCHES.
3. A TRENCH SHALL BE EXCAVATED, ROUGHLY EIGHT (8) INCHES WIDE BY EIGHT (8) INCHES DEEP UP SLOPE AND ADJACENT TO THE POST TO ALLOW THE FILTER FABRIC TO BE BURIED.
4. WHEN STANDARD STRENGTH FILTER FABRIC IS UTILIZED, A WIRE SINGLE SPACE MESH SUPPORT FENCE SHALL BE FASTENED TO THE UPSLOPE (OR UPSTREAM) SIDE OF THE POSTS USING ONE (1) INCH MINIMUM LENGTH WIRE STAPLES, TIE WIRE OR APPROVED HOG RINGS. ALL WIRE SUPPORT SHALL EXTEND INTO THE TRENCH A MINIMUM OF FOUR (4) INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE ORIGINAL GRADE.
5. ALL FILTER FABRIC SHALL BE STAPLED OR WIRED TO SUPPORT FENCING AND A MINIMUM OF 20 INCHES OF FABRIC SHALL BE EXTENDED INTO THE TRENCH. FILTER FABRIC SHALL NOT BE STAPLED OR FASTENED TO EXISTING TREES OF STRUCTURES UNLESS OTHERWISE APPROVED BY THE ENGINEER.
6. IF HIGH STRENGTH FILTER FABRIC AND CLOSER SPACING ARE USED, THE WIRE SUPPORT FENCING MAY BE ELIMINATED. HIGH STRENGTH FABRIC SHALL BE STAPLED OR WIRED DIRECTLY TO POSTS AS REQUIRED BY THE ENGINEER.
7. CUTOFF TRENCH SHALL BE BACKFILLED WITH 3/4 INCH MINIMUM DIAMETER WASHED GRAVEL OR OTHER SIMILAR SOURCE AS APPROVED BY THE ENGINEER.
8. FILTER FENCING SHALL BE INSTALLED WHERE SHOWN ON THE PLAN, OR AS MARKED IN THE FIELD BY THE ENGINEER, PRIOR TO COMMENCEMENT OF WORK. ALL FENCING SHALL BE INSPECTED DAILY DURING CONSTRUCTION AND AFTER EACH SIGNIFICANT RAINFALL EVENT UNTIL SITE HAS BEEN PERMANENTLY STABILIZED. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
9. REMOVAL OF TRAPPED SEDIMENT SHALL BE PERFORMED WHEN AMOUNTS REACH APPROXIMATELY 1/3 HEIGHT OF THE FENCE.
10. FILTER FENCING SHALL REMAIN IN-PLACE UNTIL SITE HAS BEEN REVEGETATED TO ORIGINAL CONDITION OR DIRECTED BY THE ENGINEER.

REFERENCE NUMBER:
APPLICANT NAME:
WASHINGTON DEPT. of FISH & WILDLIFE
PROPOSED PROJECT:
REPAIR & MAINTENANCE
LOCATION: SNOW CREEK RESORT
SHEET 4 OF 24 DATE: 12/20/2019

ENG. PROJECT NO. CM:A664:2019-1
DRAWN BY: J. LONG

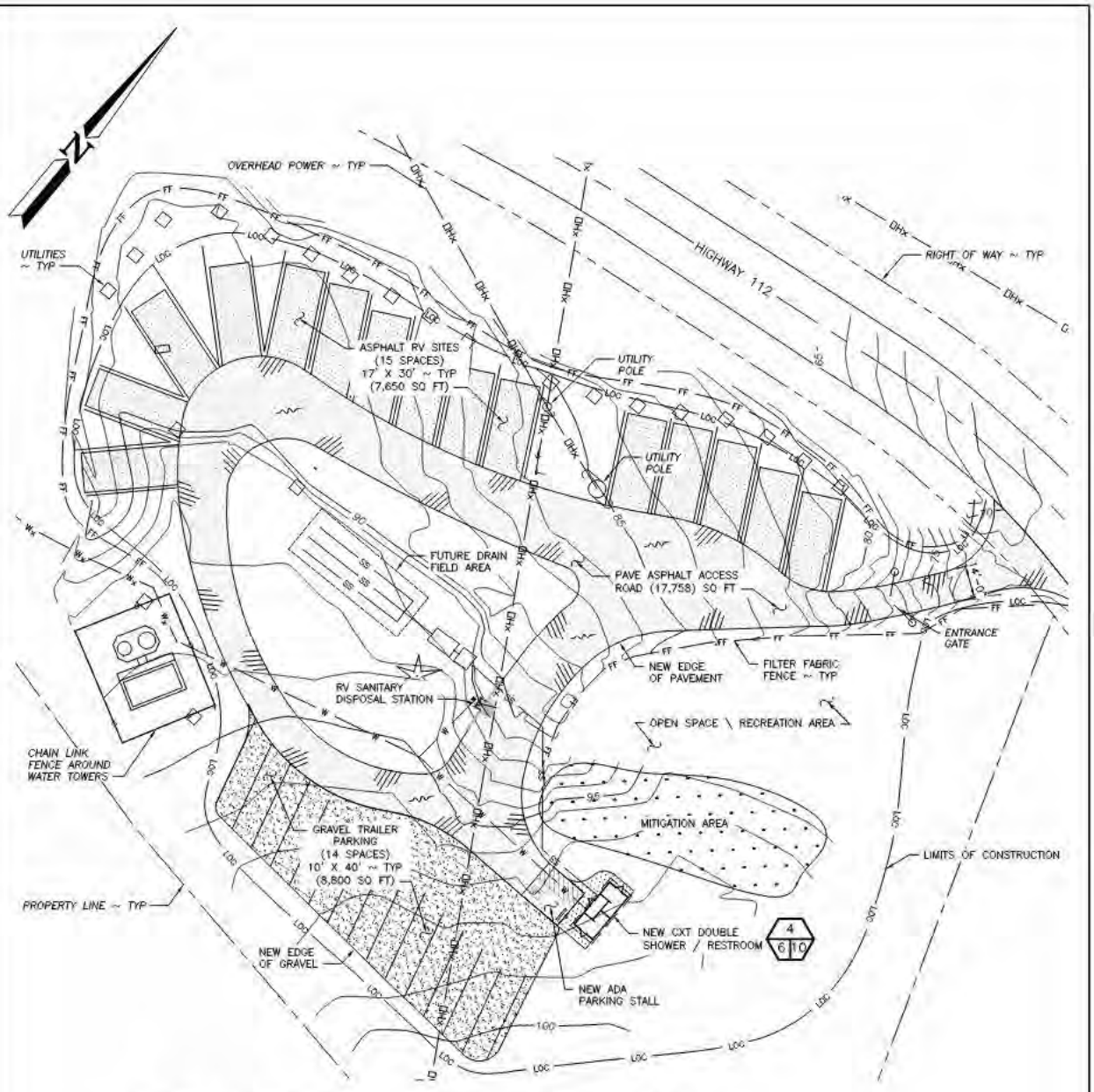


PARKING SITE PLAN
SCALE: 1" = 60'

REFERENCE NUMBER:
APPLICANT NAME:
WASHINGTON DEPT. of FISH & WILDLIFE
PROPOSED PROJECT:
REPAIR & MAINTENANCE
LOCATION: SNOW CREEK RESORT
SHEET 5 OF 24 DATE: 12/20/2019

ENG. PROJECT NO. CM:A664:2019-1

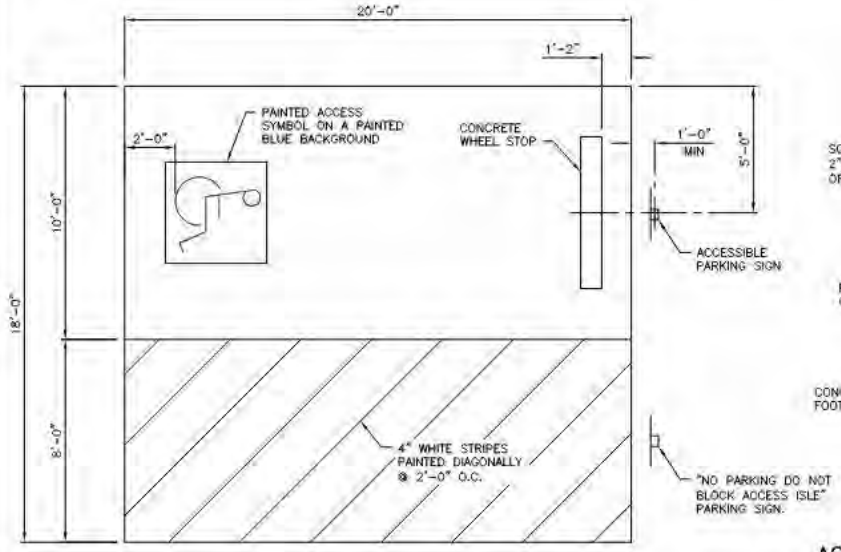
DRAWN BY: J. LONG



CAMPING SITE PLAN (2 / 3|6)
SCALE: 1" = 60'

REFERENCE NUMBER:
APPLICANT NAME:
WASHINGTON DEPT. of FISH & WILDLIFE
PROPOSED PROJECT:
REPAIR & MAINTENANCE
LOCATION: SNOW CREEK RESORT
SHEET 6 OF 24 DATE: 12/20/2019

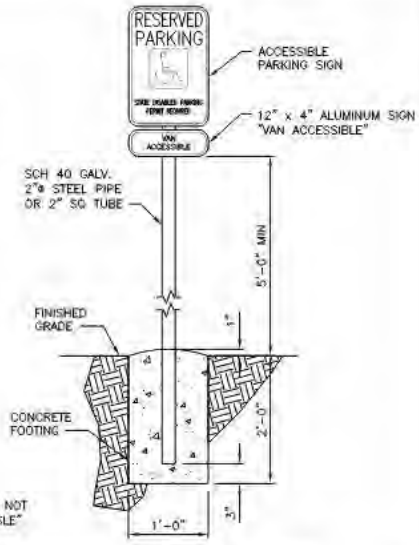
ENG. PROJECT NO. CM:A664:2019-1
DRAWN BY: J. LONG



VAN ACCESSIBLE PARKING AREA

NOT TO SCALE

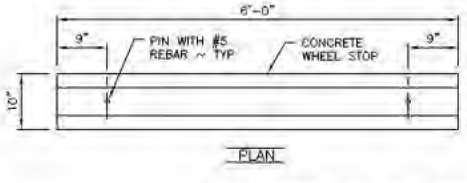
NOTE: 2% MAXIMUM SLOPE IN ALL DIRECTIONS.

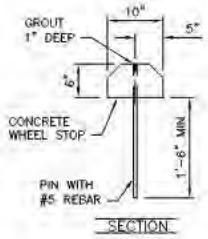


ACCESSIBLE PARKING SIGN

NOT TO SCALE

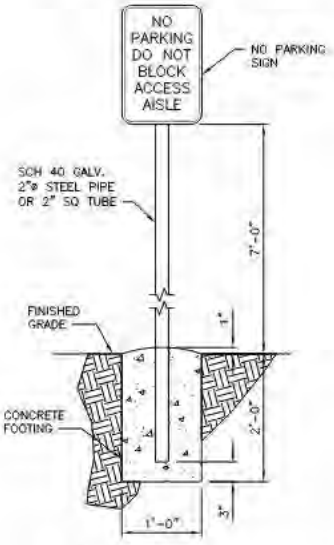
NOTE: USE TAMPER RESISTANT NUTS TO ATTACH SIGNS TO POST.





CONCRETE WHEEL STOP

NOT TO SCALE



NO PARKING SIGN

NOT TO SCALE

NOTE: USE TAMPER RESISTANT NUTS TO ATTACH SIGNS TO POST.

REFERENCE NUMBER:

APPLICANT NAME:
WASHINGTON DEPT. of FISH & WILDLIFE

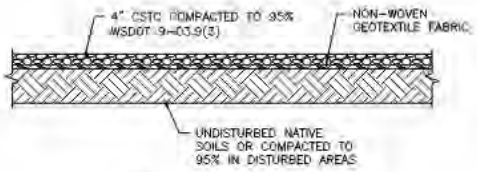
PROPOSED PROJECT:
REPAIR & MAINTENANCE

LOCATION: SNOW CREEK RESORT

SHEET 7 OF 24 DATE: 12/20/2019

ENG. PROJECT NO. CM:A664:2019-1

DRAWN BY: J. LONG



GRAVEL DETAIL
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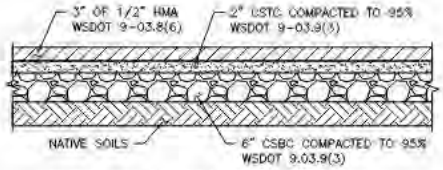
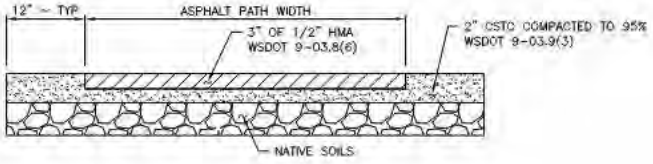


TYPICAL ASPHALT DETAIL
NOT TO SCALE



TYPICAL ASPHALT PATH DETAIL
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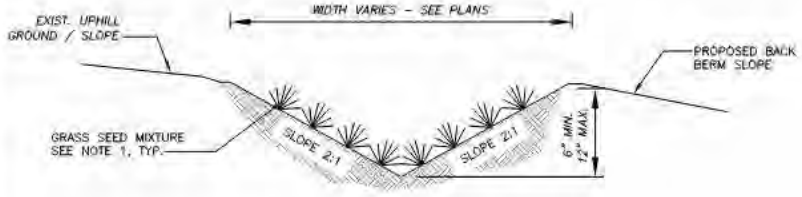
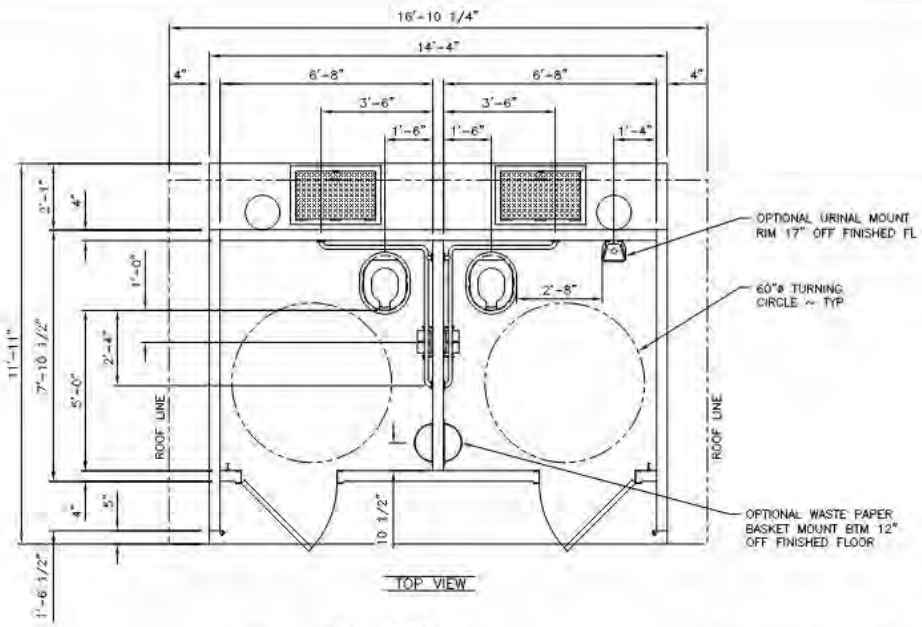


TYPICAL DRAINAGE SWALE
NOT TO SCALE

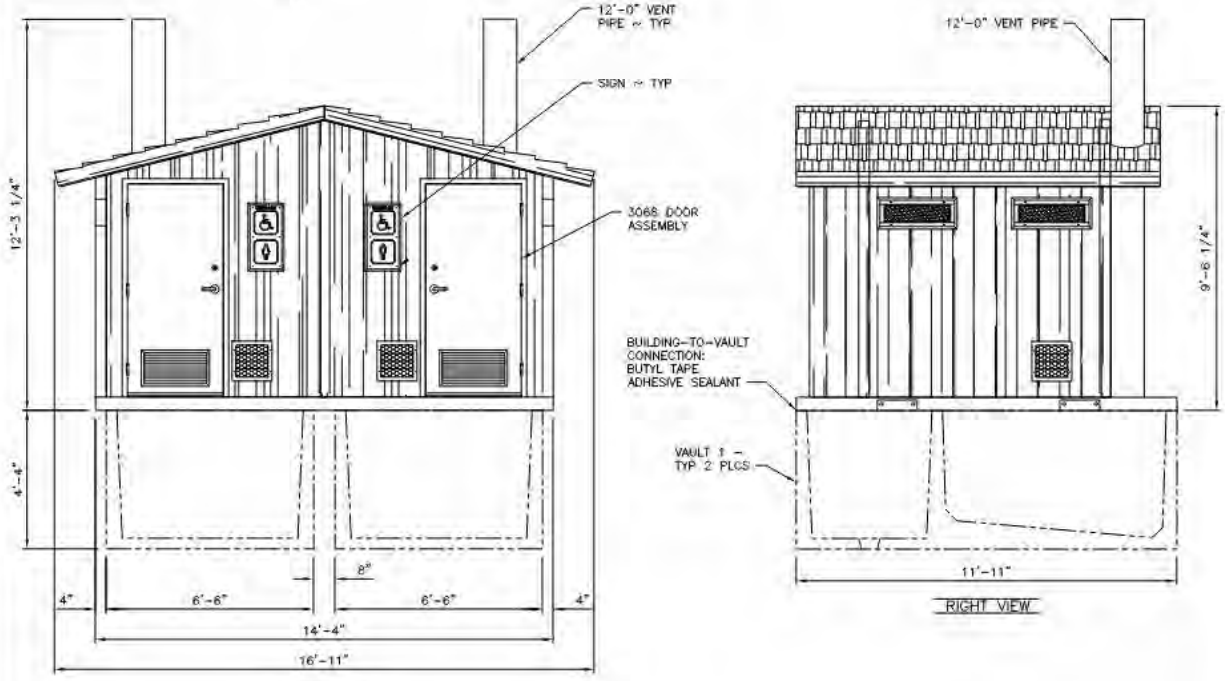
REFERENCE NUMBER:
APPLICANT NAME:
WASHINGTON DEPT. of FISH & WILDLIFE
PROPOSED PROJECT:
REPAIR & MAINTENANCE
LOCATION: SNOW CREEK RESORT
SHEET 8 OF 24 DATE: 12/20/2019

ENG. PROJECT NO. CM:A664:2019-1

DRAWN BY: J. LONG



TOP VIEW



FRONT VIEW

RIGHT VIEW

"CXT" DOUBLE VAULT TOILET

NOT TO SCALE (REFERENCE ONLY)

3/5/9

REFERENCE NUMBER:

APPLICANT NAME:
WASHINGTON DEPT. of FISH & WILDLIFE

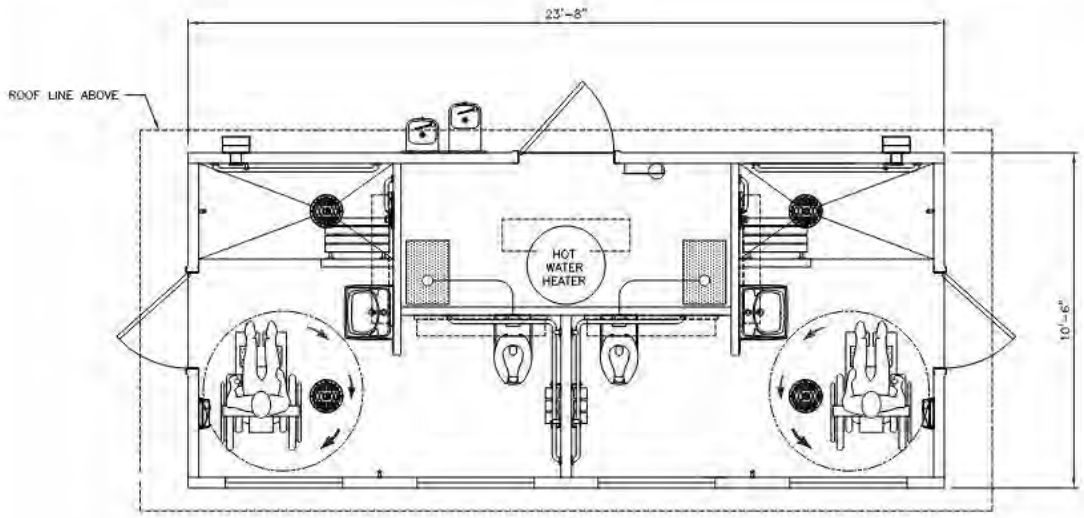
PROPOSED PROJECT:
REPAIR & MAINTENANCE

LOCATION: SNOW CREEK RESORT

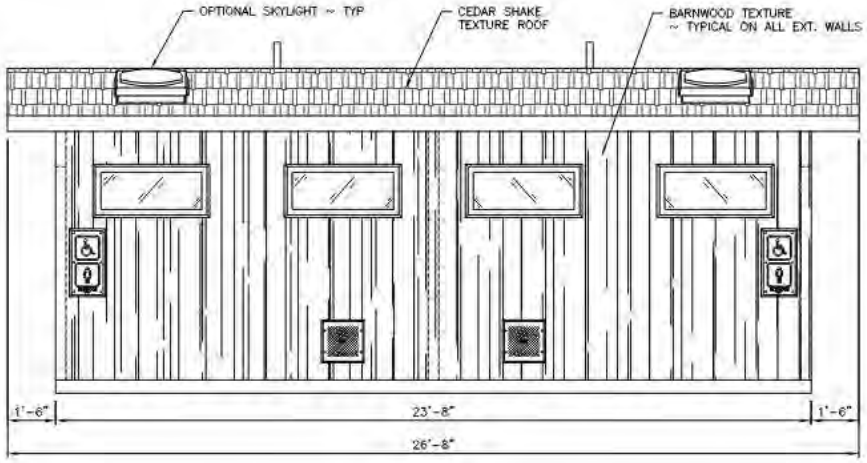
SHEET 9 OF 24 DATE: 12/20/2019

ENG. PROJECT NO. CM:A664:2019-1

DRAWN BY: J. LONG



TOP VIEW



FRONT VIEW

"CXT" DOUBLE TOILET / SHOWER
NOT TO SCALE (REFERENCE ONLY)

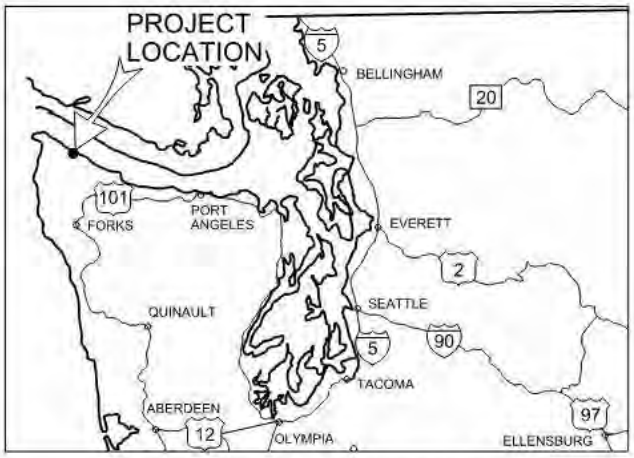
4
6 | 10

REFERENCE NUMBER:
APPLICANT NAME:
WASHINGTON DEPT. of FISH & WILDLIFE
PROPOSED PROJECT:
REPAIR & MAINTENANCE
LOCATION: SNOW CREEK RESORT
SHEET 10 OF 24 DATE: 12/20/2019

ENG. PROJECT NO. CM:A664:2019-1

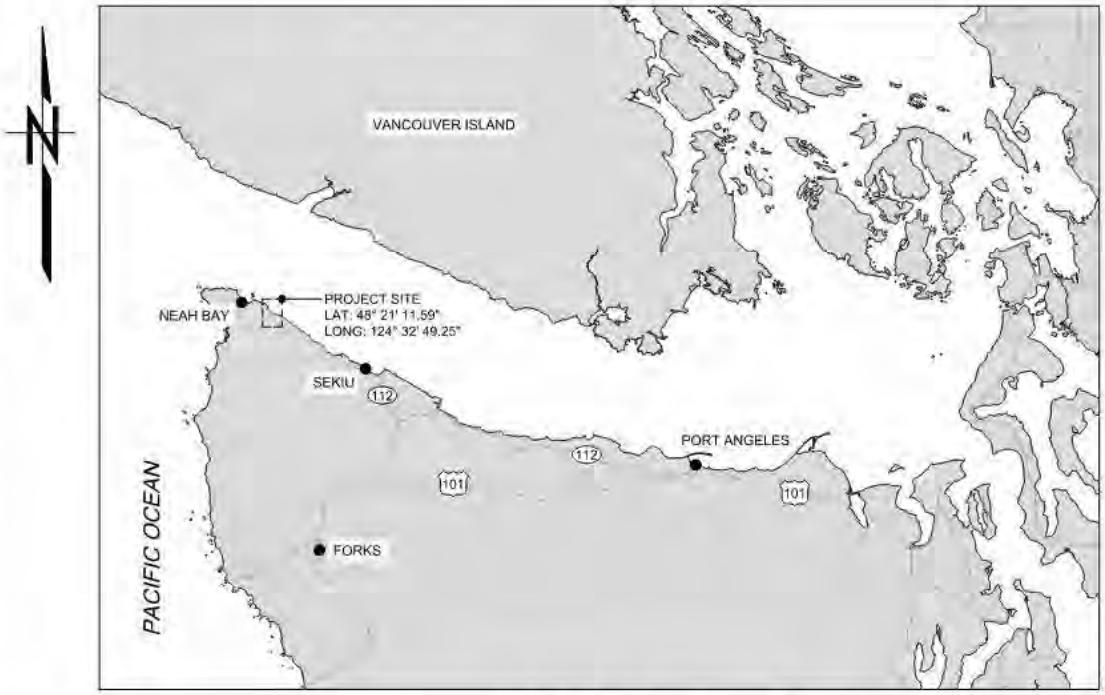
DRAWN BY: J. LONG

S17 T33N R14W



WASHINGTON KEY MAP

DRAWING INDEX	
SHEET NO.	SHEET TITLE
11	VICINITY MAP
12	EXISTING SITE PLAN
13	PROPOSED SITE PLAN
14	BOAT RAMP PLAN AND PROFILE
15	BOAT RAMP CONCRETE PANELS
16	BOAT RAMP DETAILS
17	BOARDING FLOAT DETAILS
18	WALKWAY FLOATS PROFILE
19	PIER SECTIONS
20	WALKWAY FLOATS SECTIONS
21	KAYAK LAUNCH
22	GANGWAY HOIST
23	PILE ROCK SOCKET
24	MOORING BUOY DETAILS



LOCATION MAP

50,000'
0 100,000'

TIDAL WATER LEVELS (NAVD88)	
EXTREME HIGH WATER	+11.62 FT
MEAN HIGHER HIGH WATER	+7.12 FT
MEAN LOWER LOW WATER	-0.68 FT
EXTREME LOW WATER	-4.62 FT

NOAA STATION 9443090 NEAH BAY, WA

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

VICINITY MAP

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

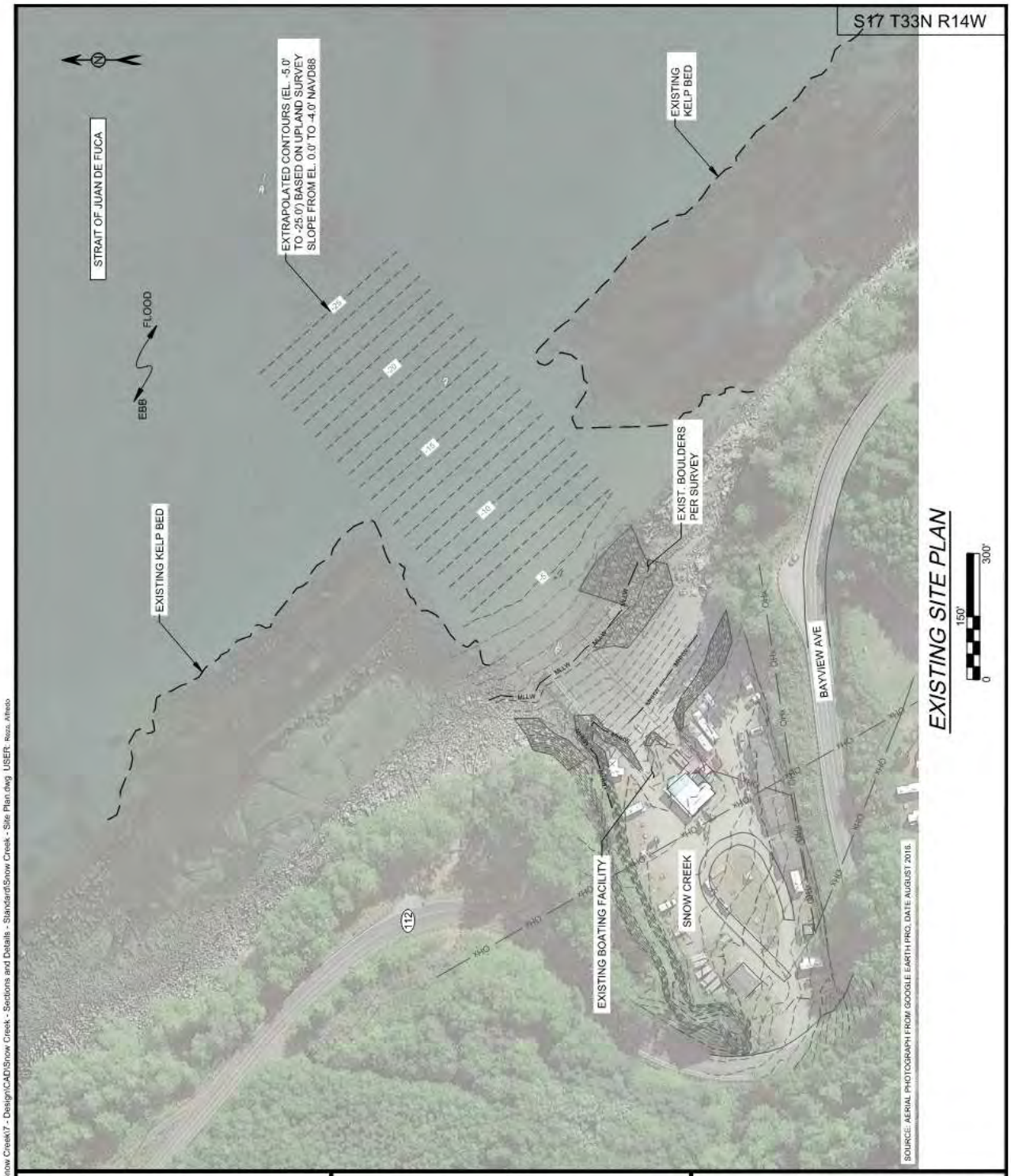
IN: WASHINGTON

AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

SHEET 11 OF 24 DATE: 12/19/19

FILE: H:\Projects-FL\507100877 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details - Standard\Snow Creek - Cover Sheet.dwg USER: Reid_Allison



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PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEP. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

EXISTING SITE PLAN

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

IN: WASHINGTON

AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

SHEET 12 OF 24 DATE: 12/19/19

FILE: H:\Projects-FL\507100877 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details - Standard\Snow Creek - Site Plan.dwg USER: Roza, Alfredo

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEP. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

PROPOSED SITE PLAN

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

IN: WASHINGTON

AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

SHEET 13 OF 24 DATE: 12/19/19

S17 T33N R14W

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM VERTICAL DATUM: NAVD88 APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE	**WDFW SNOW CREEK BOATING FACILITY** **BOAT RAMP PLAN AND PROFILE**	PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP IN: WASHINGTON AT: SNOW CREEK COUNTY: CLALLAM COUNTY SHEET 14 OF 24 DATE: 12/19/19

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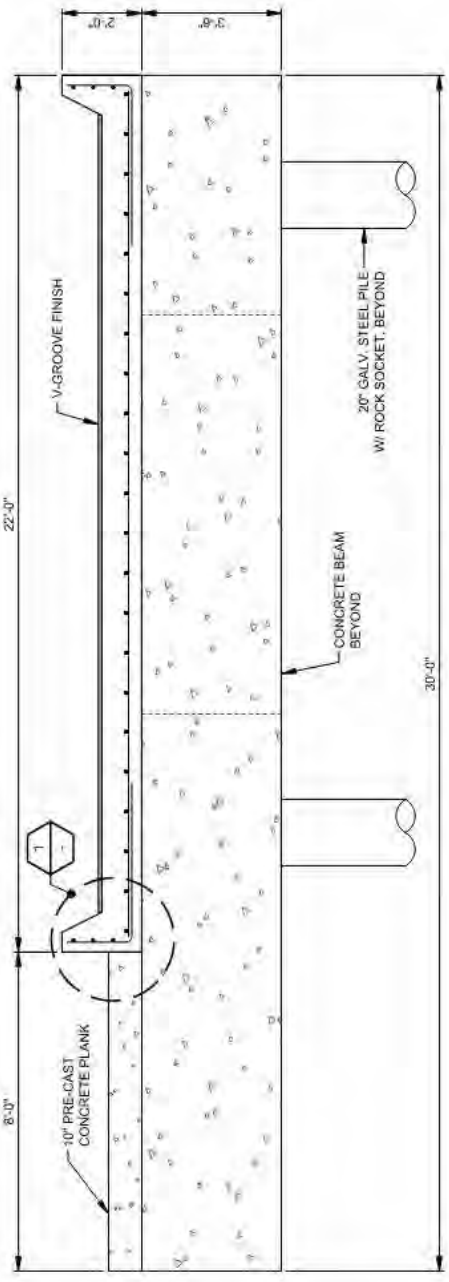
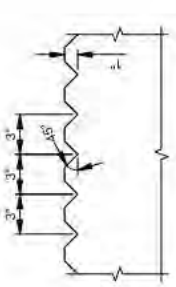
S17 T33N R14W



A / 4 | 5 — SECTION - ABUTMENT



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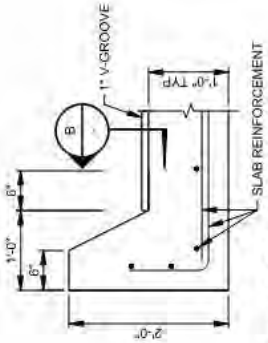
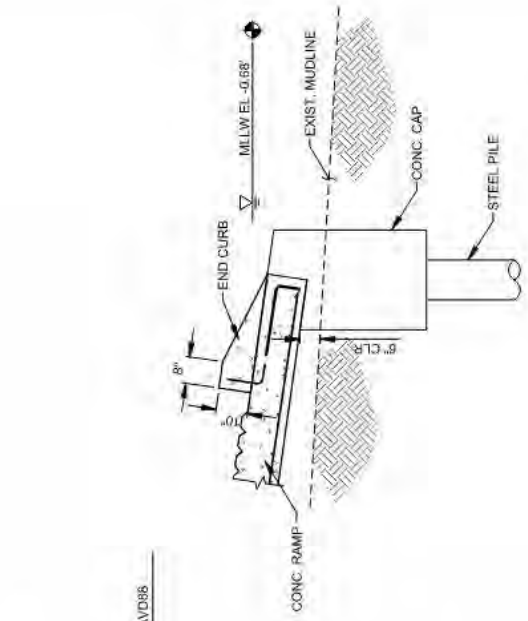


1 / - — DETAIL - CURB

FILE: H:\Projects-FL\507100977 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details - Standard\Snow Creek - Sections and Details.dwg, USER: Ross, Alfred

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM VERTICAL DATUM: NAVD88 APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE	WDFW SNOW CREEK BOATING FACILITY BOAT RAMP CONCRETE PANELS	PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP IN: WASHINGTON AT: SNOW CREEK COUNTY: CLALLAM COUNTY SHEET 15 OF 24 DATE: 12/19/19

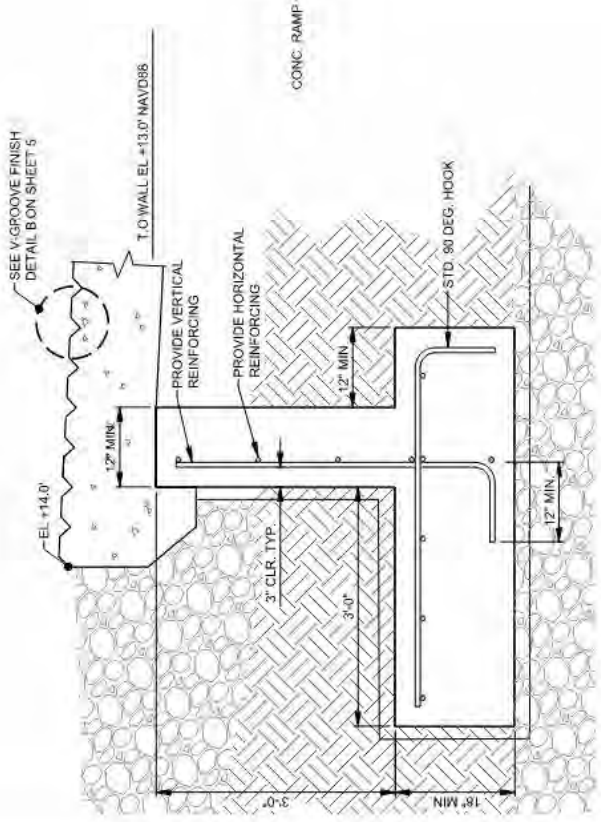
S17 T33N R14W



DETAIL - BOAT RAMP END

2 / 14 / 15

0 2' 4'



DETAIL - ABUTMENT

1 / 14 / 15

0 1' 2'

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM	WDFW SNOW CREEK BOATING FACILITY	PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP
VERTICAL DATUM: NAVD88	BOAT RAMP DETAILS	IN: WASHINGTON
APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE		AT: SNOW CREEK
		COUNTY: CLALLAM COUNTY
		SHEET 16 OF 24 DATE: 12/19/19

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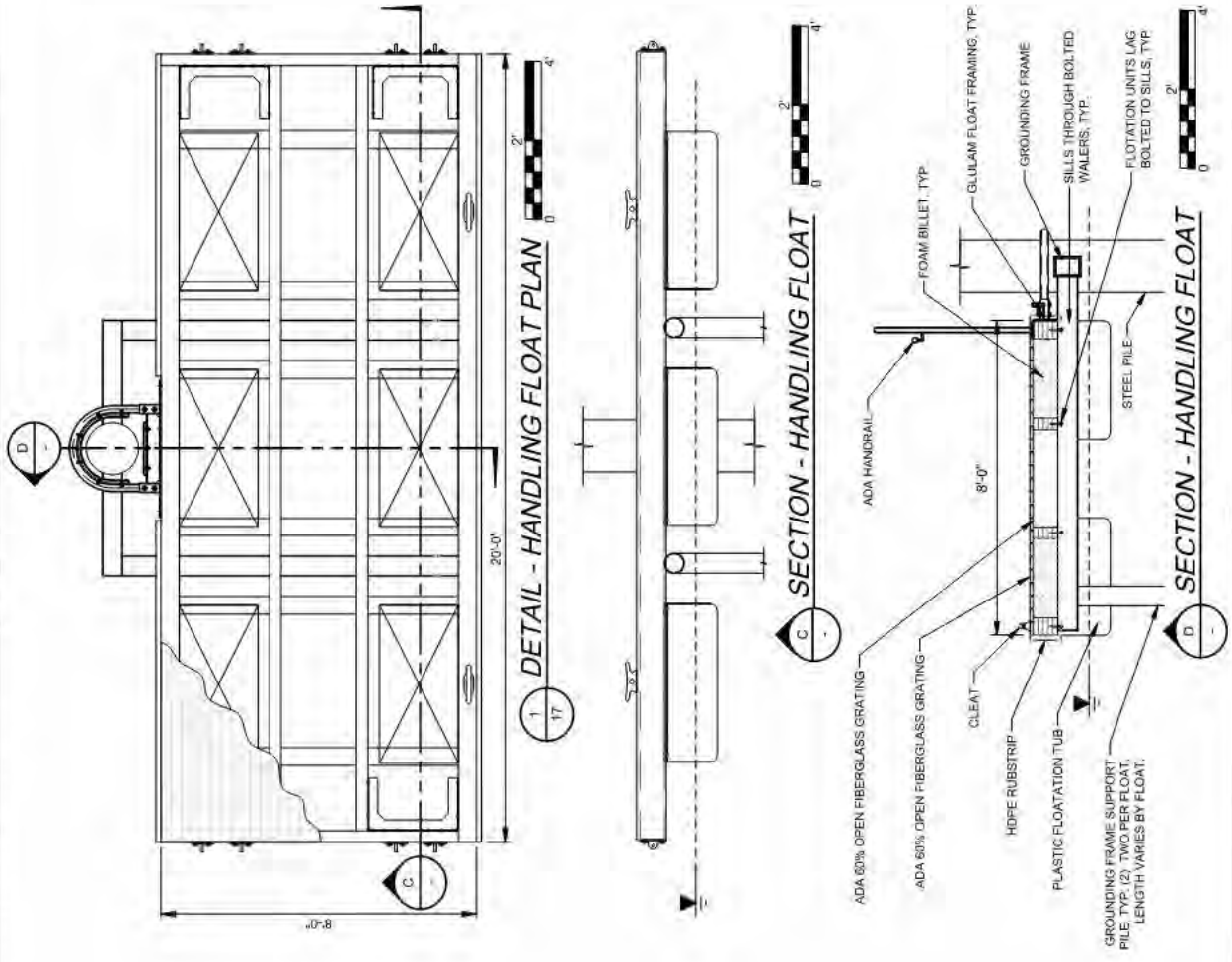


PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

BOARDING FLOAT DETAILS

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

IN: WASHINGTON

AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

SHEET 17 OF 24 DATE: 12/19/19

FILE: H:\Projects-FL\507\10677 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details - Standard\Snow Creek - Sections and Details.dwg USER: Ross Ahrens

FILE: H:\Projects-FL\507100877 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details - Standard\Snow Creek - Sections and Details.dwg USER: Reza, Alireza

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

WALKWAY FLOATS PROFILE

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

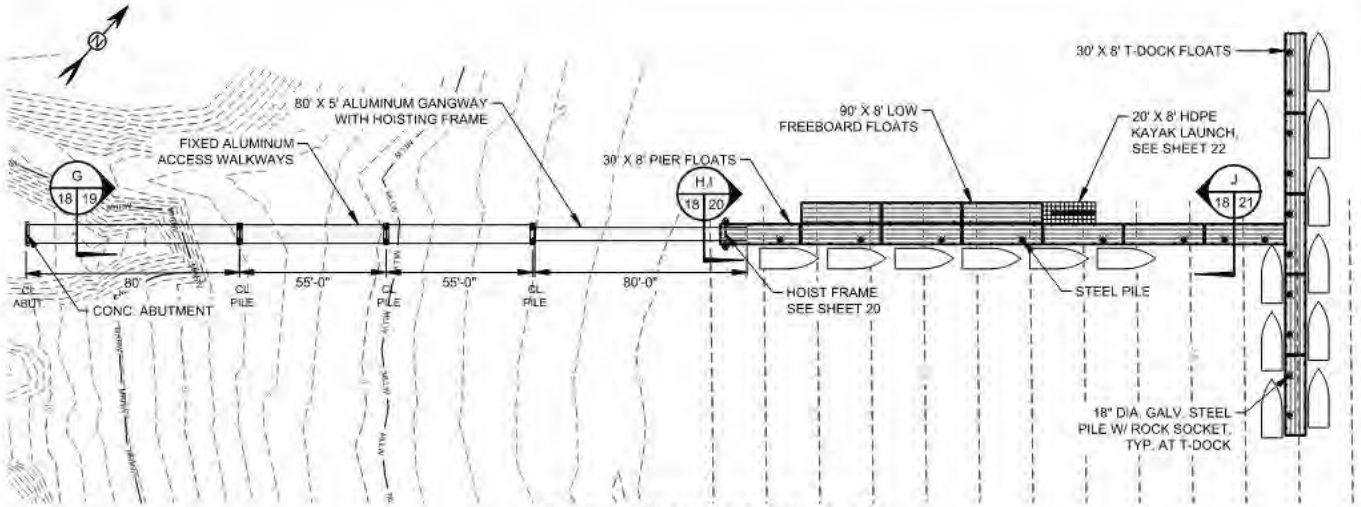
IN: WASHINGTON

AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

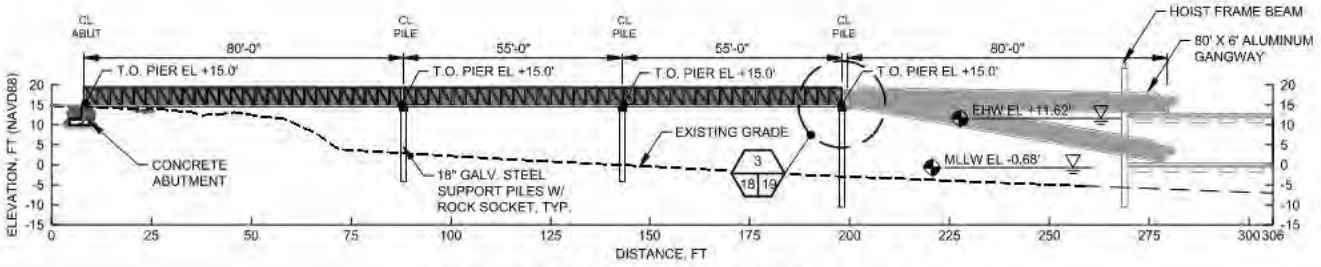
SHEET 18 OF 24

DATE: 12/19/19



PROPOSED T-DOCK PLAN

30' 0 60'



ELEVATION - WALKWAY/GANGWAY

20' 0 40'

TIDAL WATER LEVELS (NAVD88)

EXTREME HIGH WATER	+11.62 FT
MEAN HIGHER HIGH WATER	+7.12 FT
MEAN LOWER LOW WATER	-0.68 FT
EXTREME LOW WATER	-4.62 FT

S17 T33N R14W

FILE: H:\Projects-FL\507100877 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details -Standard\Snow Creek - Sections and Details.dwg USER: Reza Alfazzi

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

PIER SECTIONS

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

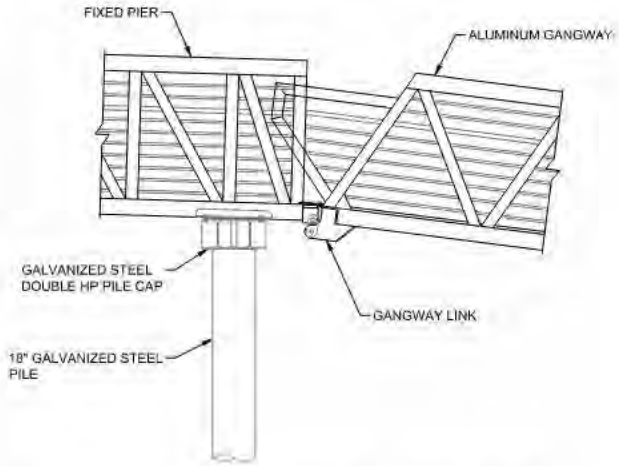
IN: WASHINGTON

AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

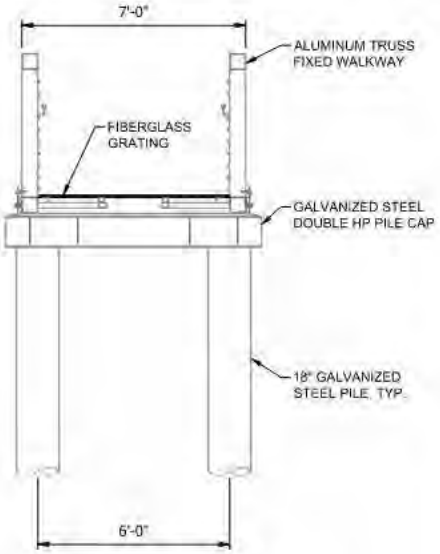
SHEET 19 OF 24

DATE: 12/19/19



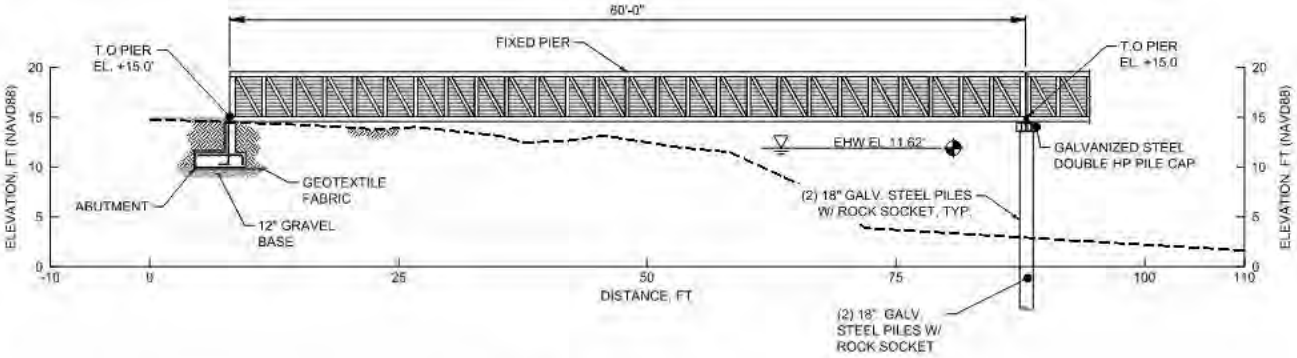
3 / 18 19 DETAIL - PILE PIER

2.5' 0 5'



G / 18 21 SECTION - PILE PIER

2.5' 0 5'

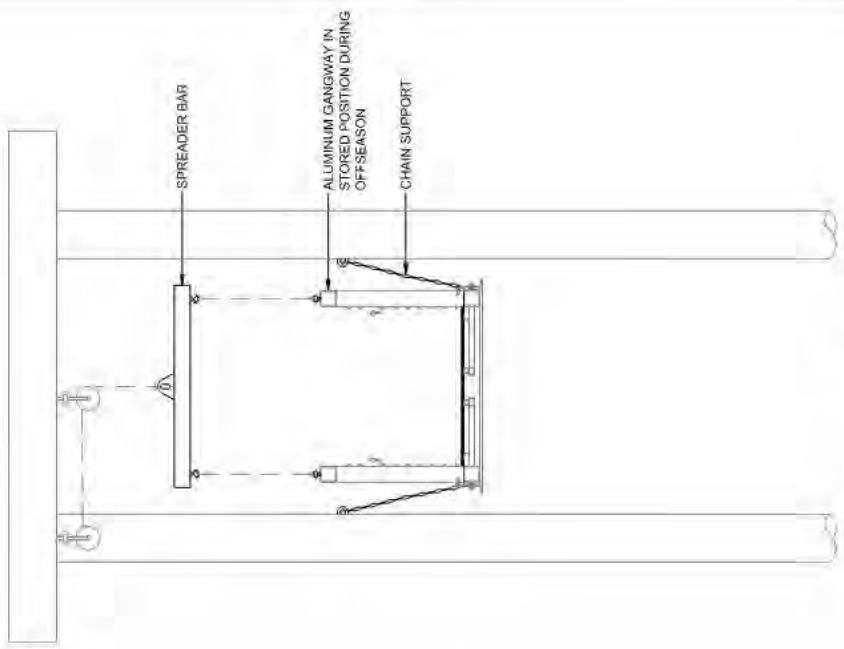


4 / 18 19 DETAIL - ABUTMENT

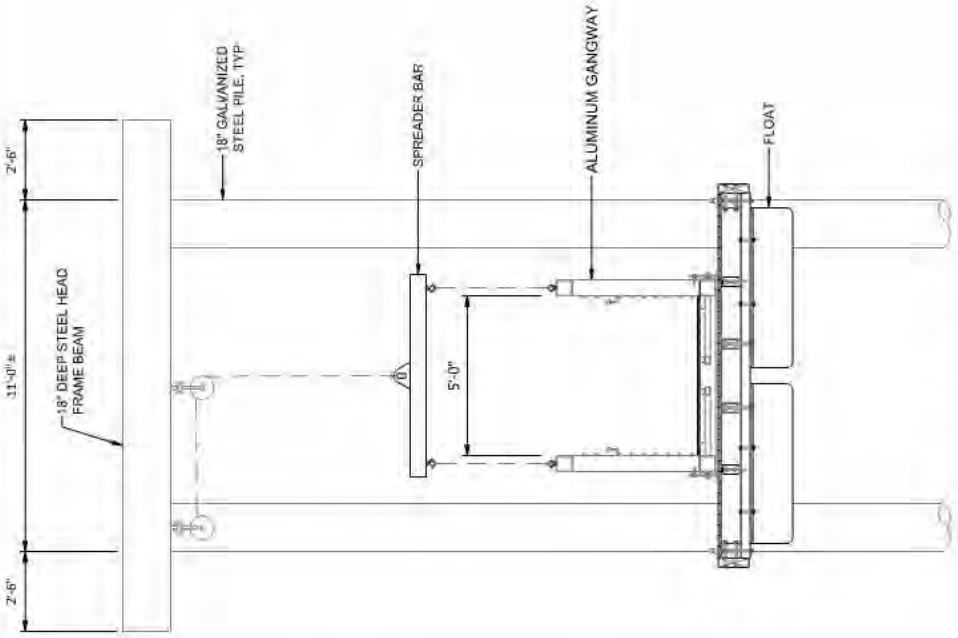
5' 0 10'

S17 T33N R14W

S17 T33N R14W



I/18/20 SECTION - HOIST FRAME
IN STORED POSITION
0 2.5' 5'



H/18/20 SECTION - HOIST FRAME
DEPLOYED POSITION
0 2.5' 5'

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

GANGWAY HOIST

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

IN: WASHINGTON

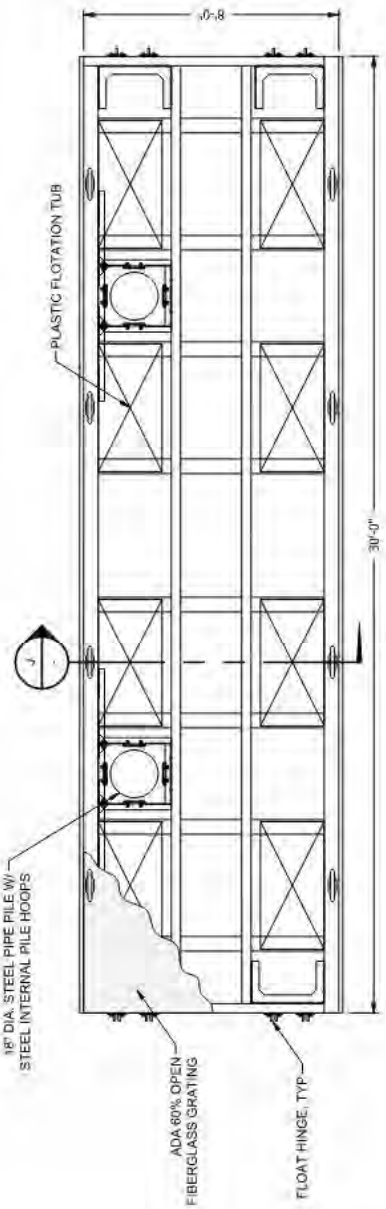
AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

SHEET 20 OF 24 DATE: 12/19/19

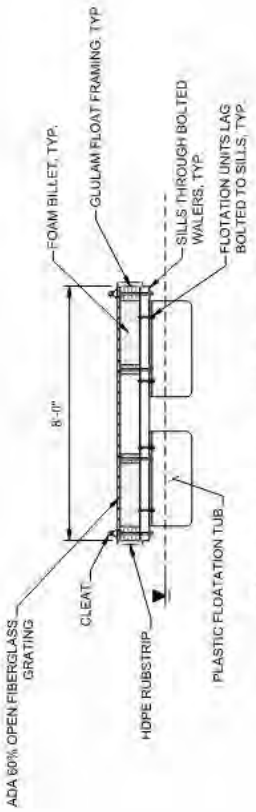
FILE: H:\Projects-FL\50710\0377 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details\Standard\Snow Creek - Sections and Details.dwg USER: Russ Alfredi

S17 T33N R14W



DETAIL - TYPICAL FLOAT

PLAN VIEW



SECTION - TYPICAL FLOAT

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

WALKWAY FLOATS SECTIONS

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

IN: WASHINGTON

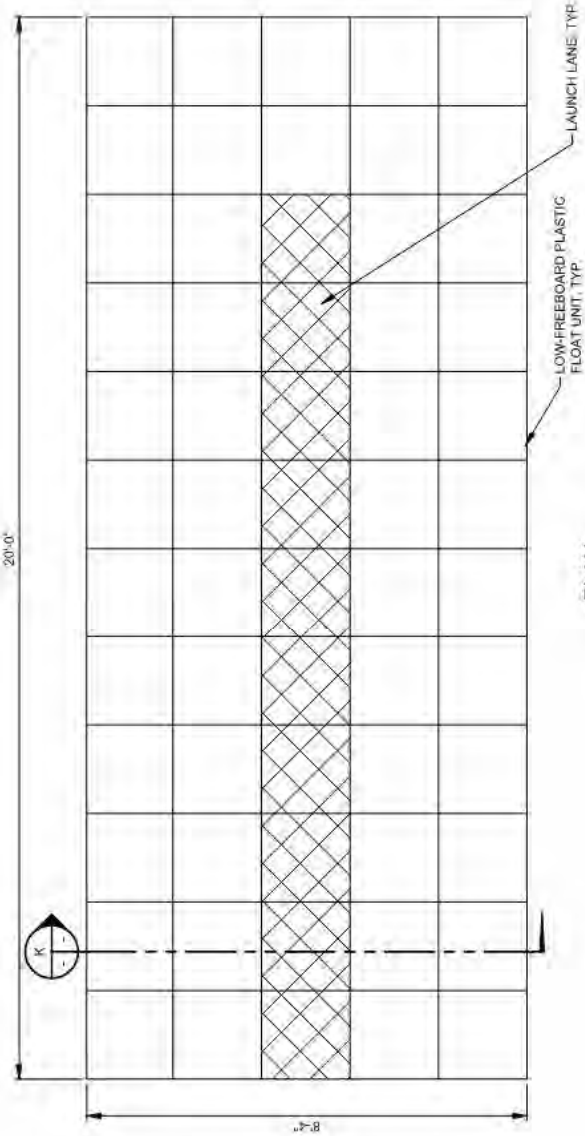
AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

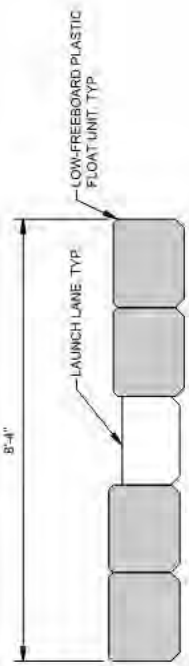
SHEET 21 OF 24 DATE: 12/19/19

FILE: H:\Projects-FL\507100977 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details - StandardSnow Creek - Sections and Details.dwg, USER: tkcox, xlfalse

S17 T33N R14W



PLAN
LAUNCH FLOAT
0 1.5 3
SCALE IN FEET



SECTION
LAUNCH FLOAT
K
0 1.5 3
SCALE IN FEET

FILE: H:\Projects-FL\507100977 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details - Standard\Snow Creek - Sections and Details.dwg USER: <xrp_alias>

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

KAYAK LAUNCH

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

IN: WASHINGTON

AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

SHEET 22 OF 24 DATE: 12/19/19

S17 T33N R14W

NOTES

1. PILES TO BE INSTALLED USING A COMBINATION OF VIBRATORY HAMMER AND ROCK DRILLING FOR ROCK SOCKET.
2. ROCK SOCKET WILL BE CONSTRUCTED EITHER BY PRE-DRILLING TO THE REQUIRED DEPTH OR BY CASING.
3. PRE-DRILLING WILL CONSIST OF FILLING THE SPACE BETWEEN THE PILE AND THE DRILLED HOLE WITH GRANULAR MATERIAL.

L 14 23 SECTION - PILE ROCK SOCKET

FILE: H:\Projects-FL\507100877 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details - Standard\Snow Creek - Sections and Details.dwg, USER: Ross, Alfred

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

PILE ROCK SOCKET

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

IN: WASHINGTON

AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

SHEET 23 OF 24 DATE: 12/19/19

S17 T33N R14W

DETAIL - TYPICAL MOORING BUOY

NTS

NOTES

1. DETAIL PROVIDED BY WASHINGTON STATE PARKS AND RECREATION COMMISSION.
2. A HELICAL ANCHOR TO BE PROVIDED IN SEDIMENT AREAS. AREAS EXPOSED TO BEDROCK WILL BE PROVIDED WITH ROCK ANCHOR

PURPOSE: REPLACE EXISTING PUBLIC RECREATIONAL BOATING FACILITY LAUNCH AND MOORAGE SYSTEM

VERTICAL DATUM: NAVD88

APPLICATION BY: WA DEPT. OF FISH AND WILDLIFE

WDFW SNOW CREEK BOATING FACILITY

MOORING BUOY DETAILS

PROPOSED: NEW ACCESS FLOATING DOCK, BUOY FIELD, BOAT LAUNCH HANDLING FLOATS, ELEVATED BOAT RAMP

IN: WASHINGTON

AT: SNOW CREEK

COUNTY: CLALLAM COUNTY

SHEET 24 OF 24 DATE: 12/19/19

FILE: H:\Projects-FL\507\109977 - Snow Creek\7 - Design\CAD\Snow Creek - Sections and Details - Standard\Snow Creek - Sections and Details.dwg USER: tkcox, xlines=

Appendix D – 2019 On-Site Septic System Analysis

COTTON REDI-MIX SHOLD EXCAVATING, INC.

Sand * Gravel * Crushed Rock * Septic Systems * Concrete * Landscape Products

(360) 385-0480 (360) 385-0582
Toll Free 1-800-732-5683
P.O. Box 179, 121 Pomwell Road - Port Hadlock, WA 98339
Office@cottonshold.com

12/18/19

Washington State Department of Fish and Wildlife
Attn: Lane Slater
600 Capitol Way North
Olympia, WA 98501

Re: Septic Inspection - Snow Creek Resort, 691 HWY 112

Hello Lane, here is my report on evaluation of the septic facilities serving this property:

An inspection was made 11/21/2019 of all septic system components. The report consists of two sections. Section one details the condition of existing facilities. For the purpose of this report, the systems will be referred to as systems 1, 2, and 3 (see attached site plan for general reference). All known deficiencies are noted within this report, safety issues are highlighted in red. An overall summary is included at the end of section 1.

Section 2 addresses the possibility of replacement of existing facilities and additional facilities on the upper portion of the property.

SECTION ONE – EXISTING FACILITIES

System 1: Permitted system (SEP 83-98, and SEP86-185) serving the restroom and Southerly RV sites:

Septic tank #1 – 1000 gallon 2 compartment concrete tank (SEP86-185)
- Wooden riser with metal grate over 1st compartment, potential health risk.
- No riser over 2nd compartment, wood decking built over access point.

Pump basin – 36" diameter X 36" deep metal tank with pump
-Riser and tank corroded beyond repair.
-No panel or alarm.
-Discharge line disconnected at coupling.
-Tank inaccessible due to corrosion.
-Wood decking built over access point.

Septic tanks #2 and #3 – 1000 gallon single compartment concrete tanks (SEP 83-98)
-H2S corrosion of concrete, exposed structural components.
-Bootleg pump installed in tank #3, unknown reason.
-Non permitted connection of approximately 12 RV sites, with collection system in disrepair.

Drainfield – (SEP 83-98) – 200LF conventional gravity system.
-Installed below water table, high pollution potential.

-Not permitted for connected RV sites (all southerly sites)
-RV sites installed over drainfield (vehicle traffic)

Systems #2 and #3: Non permitted systems. Serving RV sites along Northerly portion of lower site:

Septic tanks #4 and #5 – 1000 gallon 2 compartment tanks with corrugated metal risers and metal riser lids.
-Collection system in disrepair.
-Risers intact.
-H2S corrosion of concrete, exposed structural components.

Drainfields #2 and #3 - +/- 100 LF each, conventional gravity systems.
-Installed below water table, high pollution potential
-Inadequate setback from Snow Creek
-Installed under RV sites (vehicle traffic)

Summary Section 1:

All existing systems on this site are in serious disrepair and are not providing adequate treatment of waste prior to discharge into groundwater. There is no feasible way to repair these systems to correct this issue, therefore I am recommending abandonment and decommissioning of all existing sewage facilities on this site. Potential replacement options are addressed in section 2 of this report.

SECTION 2 - REPLACEMENT / EXPANSION POSSIBILITIES

Lower site: Replacement options will be limited to the area of the existing permitted drainfield due to setback requirements (100' to surface waters). There are high seasonal groundwater conditions, and limited space. Given these limitations I would expect that any replacement system in this area would only be capable of serving the existing restroom. The exact system sizing and type are beyond the scope of this report, however for planning purposes an elevated mound type system will likely be the only appropriate technology for these conditions.

Upper site: Two areas were evaluated on the upper site, to determine if new facilities could be installed. Area one is located outside the existing RV sites / roadways toward the water treatment facilities. Area two is located within the existing RV sites closest to the highway.

Area 1 – Soils are USDA type 4 to 5 overlain by 3 feet of fill material. Overall depth evaluated was to 72", no restrictive soils were encountered. Groundwater was encountered at 18", leaving no effective soil depth within the native soil profile. A system could only be installed in this area if drainage measures could reduce groundwater levels by 30" or more.

Area 2 – Soils are USDA type 4 overlain by 18" of incidental fill. No restrictive soils were encountered within 60". Groundwater was observed at 18", again leaving no effective soil depth without effective drainage control. Reduction of groundwater levels by 18" minimum would be required in this area.

Given the groundwater conditions present on the upper site, I recommend a drainage control plan be developed prior to any further evaluation. There is no system that could be permitted without reduction in seasonal groundwater levels. The underlying soil is deep and fairly well drained, so reduction of these levels is feasible.

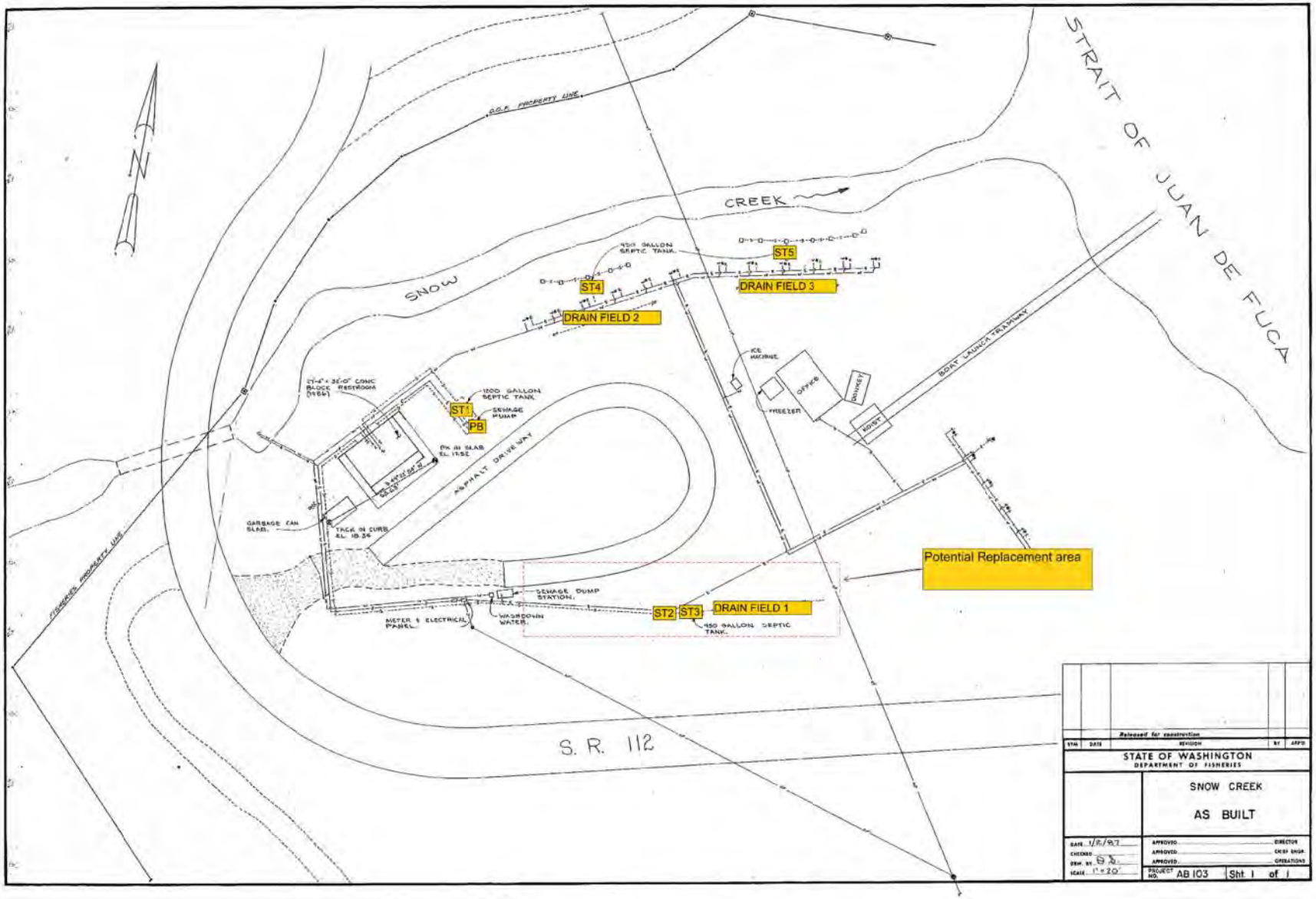
Permitting wise, the next logical step for the lower site is to conduct a site registration with the health department to allow them to assess the soil conditions in the replacement area and develop a general plan to address the failing conditions. I will be happy to assist in your efforts to pursue a permitted solution should you decide to follow through with this project.

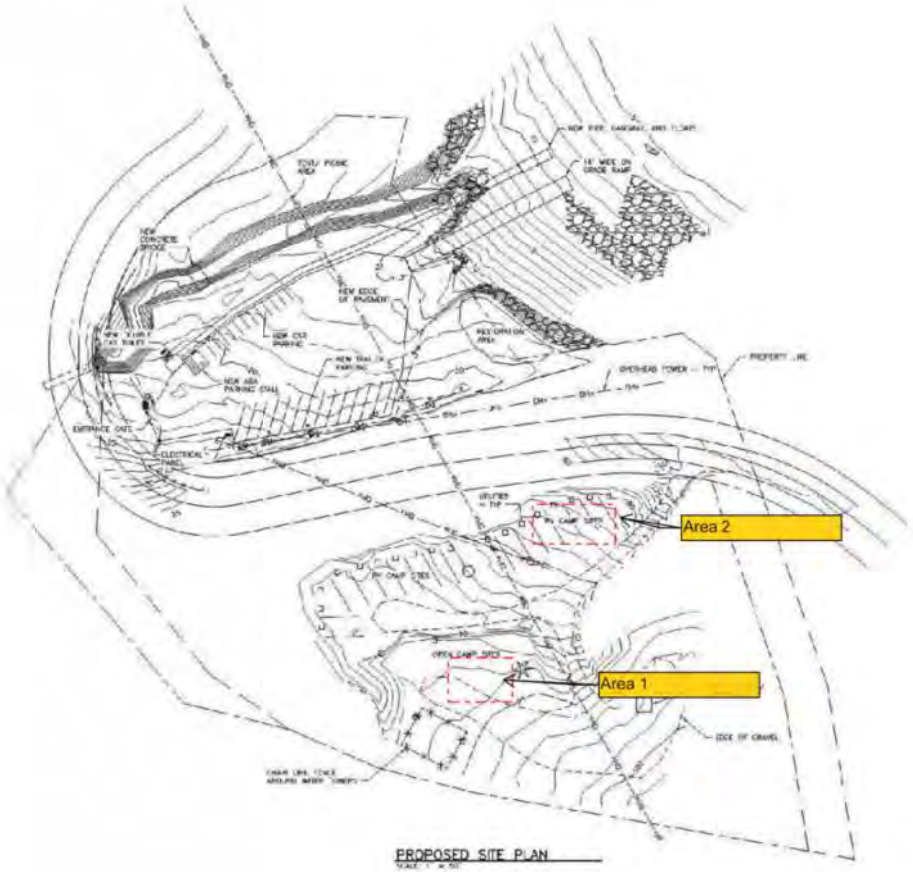
If you have any questions regarding this report I am available at the number listed below. Thank you for choosing Shold Excavating.

Jess Godsalve
Shold Excavating
360-385-0480
designer@cottonshold.com

12/19/19

EXPIRES 12/27/2020


STRAIT OF JUAN DE FUCA
CREEK
SNOW
O.O.E. PROPERTY LINE
450 GALLON SEPTIC TANK
ST5
ST4
DRAIN FIELD 3
DRAIN FIELD 2
ICE MACHINE
OFFICE
DRYHOUSE
ADMIN
FREEZER
BOAT LAUNCH TRAILWAY
12'-4" x 36'-0" CONC BLOCK RESTROOM (1984)
1200 GALLON SEPTIC TANK
ST1
SEWAGE PUMP
PB
PK IN SLAB EL. 11.52
ASPHALT DRIVE WAY
GARBAGE CAN SLAB.
TACK IN CURB EL. 10.34
Potential Replacement area
SEWAGE DUMP STATION.
ST2
ST3
DRAIN FIELD 1
450 GALLON SEPTIC TANK.
METER & ELECTRICAL PANEL
WASHDOWN WATER
FISHERIES PROPERTY LINE
S. R. 112
Released for construction
STATE OF WASHINGTON
DEPARTMENT OF FISHERIES
SNOW CREEK
AS BUILT
DATE 1/8/97
SCALE 1" = 20'
PROJECT NO. AB 103
Sht. 1 of 1



WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

NOT APPROVED FOR CONSTRUCTION

SNOW CREEK RESORT

PROPOSED SITE PLAN

Appendix E – DAHP Letter

Allyson Brooks Ph.D., Director
State Historic Preservation Officer

October 28, 2019

Dr. Adam N. Rorabaugh, Ph.D.
WDFW
PO Box 43158
600 Capitol Way N.
Olympia, Washington 98501

RE: WDFW Snow Creek Resort Development Project
Log Number: 2019-10-08174-WDFW

Dear Dr. Rorabaugh:

Thank you for contacting our Department pursuant to Executive Order 05-05. We have reviewed the materials you provided for the proposed WDFW Snow Creek Resort Development Project, Clallam County, Washington.

Given the area's landforms and environment that are sensitive for cultural resources, we concur with your proposed archaeological monitoring of geotechnical work and a professional archaeological survey for all ground disturbing activities. Please keep us apprised and provide the survey report when available via uploading into Wisaard.

We would appreciate receiving any correspondence or comments from concerned tribes or other parties concerning cultural resource issues that you receive as you consult under the requirements of Executive Order 05-05.

These comments are based on the information available at the time of this review and on behalf of the State Historic Preservation Officer conformance with Executive Order 05-05.

Should additional information become available, our assessment may be revised. Thank you for the opportunity to comment on this project and we look forward to receiving the survey report.

Sincerely,

Robert G. Whitlam, Ph.D.
State Archaeologist
(360) 586-3080
email: *rob.whitlam@dahp.wa.gov*

Appendix F – C-100 Forms

C-100(2020)

Updated June 2020

Quick Start Guide

GENERAL INFORMATION

1) The C-100(2020) tool was created to align with the estimating application in the Capital Budgeting System (CBS). The intended use is to enable project managers to communicate their project cost estimates to budget officers in the standard format required for capital project budget requests/submittals to OFM.

2) This workbook is protected so that the worksheets within it cannot be moved or deleted in the usual manner. This protection is necessary to ensure that the cost estimate details and formulas align with the estimating application in the Capital Budgeting System.

3) The estimating format to develop the maximum allowable construction cost (MACC) is presented in Uniformat II.

4) Form-calculated costs such as A/E Basic Design Service fees and Agency Project Management costs are dependent on other estimated project costs such as Acquisition, MACC, Equipment, etc.

5) Project estimates generated with this tool are not sufficient for budget request submittals to OFM. Use the Capital Budgeting System to submit capital project budget requests.

6) Contact your assigned OFM Capital Budget Analyst with questions.

OFM Capital Budget Analyst

INSTRUCTIONS

1) Only green cells are available for data entry.

2) Fill in all known cells in the 'Summary' tab prior to moving on to the cost entry tabs A-G.

3) It is recommended, but not required, to fill out cost entry tabs in the following order:

A. Acquisition, C. Construction Contracts, D. Equipment, G. Other Costs, B. Consultant Services, F. Project Management, then E. Artwork.

4) If additional rows are inserted to capture additional project costs, a description must be provided in the Notes column or within Tab H. Additional Notes. Be particularly detailed for additional costs estimated for contingencies and project management.

FORM-CALCULATED COSTS (FEE CALCULATIONS)

1) A/E Basic Design Services: AE Fee % (x) (MACC + Contingency)

2) Design Services Contingency: Contingency % (x) Consultant Services Subtotal

3) Construction Contingency: Contingency % (x) MACC

4) Artwork: 0.5% (x) Total Project Cost

5) Agency Project Management (Greater than $1million): (AE Fee % - 4%) (x) (Acquisition Total + Consultant Services Total + MACC + Construction Contingency + Other Costs)

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Contact Information	
Name	Kristen Kuykendall
Phone Number	(360) 269-6433
Email	Kristen.kuykendall@dfw.wa.gov

Statistics			
Gross Square Feet		MACC per Square Foot	
Usable Square Feet		Escalated MACC per Square Foot	
Space Efficiency		A/E Fee Class	C
Construction Type	Civil Construction	A/E Fee Percentage	7.28%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	No
Inflation Rate	2.38%	Higher Ed Institution	No
Sales Tax Rate %	8.50%	Location Used for Tax Rate	Clallam County
Contingency Rate	4%		
Base Month	June-20	OFM UFI# (from FPMT, if available)	A26148
Project Administered By	Agency		

Schedule			
Predesign Start	July-19	Predesign End	June-20
Design Start	July-21	Design End	July-22
Construction Start	July-23	Construction End	September-24
Construction Duration	14 Months		

Green cells must be filled in by user

Project Cost Estimate

Total Project	**$7,615,385**	Total Project Escalated	**$8,242,169**
		Rounded Escalated Total	**$8,242,000**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$221,000**	**Acquisition Subtotal Escalated**	**$221,000**

Consultant Services			
Predesign Services	$209,000		
A/E Basic Design Services	$285,655		
Extra Services	$72,000		
Other Services	$128,338		
Design Services Contingency	$27,800		
Consultant Services Subtotal	**$722,793**	**Consultant Services Subtotal Escalated**	**$755,811**

Construction			
Construction Contingencies	$218,720	Construction Contingencies Escalated	$238,427
Maximum Allowable Construction Cost (MACC)	$5,468,000	Maximum Allowable Construction Cost (MACC) Escalated	$5,957,673
Sales Tax	$483,371	Sales Tax Escalated	$526,669
Construction Subtotal	**$6,170,091**	**Construction Subtotal Escalated**	**$6,722,769**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$226,501		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$226,501**	**Project Administation Subtotal Escalated**	**$246,909**

Other Costs			
Other Costs Subtotal	**$275,000**	**Other Costs Subtotal Escalated**	**$295,680**

Project Cost Estimate

Total Project	**$7,615,385**	Total Project Escalated	**$8,242,169**
		Rounded Escalated Total	**$8,242,000**

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition	$171,000				
Pre-Site Development					
Other	$50,000				Intake Easement
Insert Row Here					Property is owned by DFW
ACQUISITION TOTAL	**$221,000**		**NA**	**$221,000**	

Green cells must be filled in by user

Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis	$66,000			
Predesign Study	$143,000			
Other				
Insert Row Here				
Sub TOTAL	**$209,000**	**1.0258**	**$214,393**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$285,655			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$285,655**	**1.0379**	**$296,482**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation	$25,000			
Commissioning	$7,000			
Site Survey	$15,000			
Testing	$15,000			
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review	$10,000			
Environmental Mitigation (EIS)				
Landscape Consultant				
Other				
Insert Row Here				
Sub TOTAL	**$72,000**	**1.0379**	**$74,729**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$128,338			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$128,338**	**1.0901**	**$139,902**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$27,800			
Other				
Insert Row Here				
Sub TOTAL	**$27,800**	**1.0901**	**$30,305**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$722,793**		**$755,811**	

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Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$25,000			
G20 - Site Improvements				
G30 - Site Mechanical Utilities				
G40 - Site Electrical Utilities	$166,000			
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$191,000**	**1.0752**	**$205,364**	
2) Related Project Costs				
Offsite Improvements	$10,000			
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	**$10,000**	**1.0752**	**$10,752**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems				
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions				
Landscaping	$145,000			Includes stormwater treatment
Camp Sites	$63,000			RV and tent Sites
On-Site Sewer System	$91,000			Includes southern area storm drain system
Water System	$205,000			Includes distribution system and intake
Grading	$227,000			
Paving	$521,000			Includes asphalt and gravel paving
Restrooms	$142,000			Includes showers and vault
Gates, Fencing, Signs, Iterpretive	$58,000			
Office	$169,000			Includes pad preparation

Bridge	$39,000			
Pier / Mooring / Kayak Floats	$1,692,000			
Elevated Launch Ramp / Launch Floats	$1,828,000			
Mooring Buoys	$87,000			
Insert Row Here				
Sub TOTAL	**$5,267,000**	**1.0901**	**$5,741,557**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$5,468,000**		**$5,957,673**	

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7) Construction Contingency				
Allowance for Change Orders	$218,720			
Other				
Insert Row Here				
Sub TOTAL	**$218,720**	**1.0901**	**$238,427**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0901**	**$0**	
Sales Tax				
Sub TOTAL	**$483,371**		**$526,669**	
CONSTRUCTION CONTRACTS TOTAL	**$6,170,091**		**$6,722,769**	

Green cells must be filled in by user

Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0901**	**$0**	
1) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0901**	**$0**	
Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

Green cells must be filled in by user

Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$0				0.5% of total project cost for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

Green cells must be filled in by user

Cost Estimate Details

Project Management					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Agency Project Management	$226,501				
Additional Services					
Other					
Insert Row Here					
PROJECT MANAGEMENT TOTAL	**$226,501**		**1.0901**	**$246,909**	

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Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs	$120,000				
Hazardous Material Remediation/Removal	$75,000				
Historic and Archeological Mitigation	$80,000				
Other					
Insert Row Here					
OTHER COSTS TOTAL	**$275,000**		**1.0752**	**$295,680**	

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C-100(2020)
Additional Notes

Tab A. Acquisition
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Tab B. Consultant Services
Insert Row Here

Tab C. Construction Contracts
Insert Row Here

Tab D. Equipment
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
Insert Row Here

C-100(2020)

Updated June 2020

Quick Start Guide

GENERAL INFORMATION

1) The C-100(2020) tool was created to align with the estimating application in the Capital Budgeting System (CBS). The intended use is to enable project managers to communicate their project cost estimates to budget officers in the standard format required for capital project budget requests/submittals to OFM.

2) This workbook is protected so that the worksheets within it cannot be moved or deleted in the usual manner. This protection is necessary to ensure that the cost estimate details and formulas align with the estimating application in the Capital Budgeting System.

3) The estimating format to develop the maximum allowable construction cost (MACC) is presented in Uniformat II.

4) Form-calculated costs such as A/E Basic Design Service fees and Agency Project Management costs are dependent on other estimated project costs such as Acquisition, MACC, Equipment, etc.

5) Project estimates generated with this tool are not sufficient for budget request submittals to OFM. Use the Capital Budgeting System to submit capital project budget requests.

6) Contact your assigned OFM Capital Budget Analyst with questions.

OFM Capital Budget Analyst

INSTRUCTIONS

1) Only green cells are available for data entry.

2) Fill in all known cells in the 'Summary' tab prior to moving on to the cost entry tabs A-G.

3) It is recommended, but not required, to fill out cost entry tabs in the following order:

A. Acquisition, C. Construction Contracts, D. Equipment, G. Other Costs, B. Consultant Services, F. Project Management, then E. Artwork.

4) If additional rows are inserted to capture additional project costs, a description must be provided in the Notes column or within Tab H. Additional Notes. Be particularly detailed for additional costs estimated for contingencies and project management.

FORM-CALCULATED COSTS (FEE CALCULATIONS)

1) A/E Basic Design Services: AE Fee % (x) (MACC + Contingency)

2) Design Services Contingency: Contingency % (x) Consultant Services Subtotal

3) Construction Contingency: Contingency % (x) MACC

4) Artwork: 0.5% (x) Total Project Cost

5) Agency Project Management (Greater than $1million): (AE Fee % - 4%) (x) (Acquisition Total + Consultant Services Total + MACC + Construction Contingency + Other Costs)

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Contact Information	
Name	Kristen Kuykendall
Phone Number	(360) 269-6433
Email	Kristen.kuykendall@dfw.wa.gov

Statistics			
Gross Square Feet		MACC per Square Foot	
Usable Square Feet		Escalated MACC per Square Foot	
Space Efficiency		A/E Fee Class	C
Construction Type	Civil Construction	A/E Fee Percentage	7.87%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	No
Inflation Rate	2.38%	Higher Ed Institution	No
Sales Tax Rate %	8.50%	Location Used for Tax Rate	Clallam County
Contingency Rate	4%		
Base Month	June-20	OFM UFI# (from FPMT, if available)	A26148
Project Administered By	Agency		

Schedule			
Predesign Start	July-19	Predesign End	June-20
Design Start	July-21	Design End	July-22
Construction Start	July-23	Construction End	September-24
Construction Duration	14 Months		

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Project Cost Estimate

Total Project	**$4,425,918**	Total Project Escalated	**$4,774,091**
		Rounded Escalated Total	**$4,774,000**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$221,000**	**Acquisition Subtotal Escalated**	**$221,000**

Consultant Services			
Predesign Services	$209,000		
A/E Basic Design Services	$164,851		
Extra Services	$62,500		
Other Services	$74,063		
Design Services Contingency	$20,417		
Consultant Services Subtotal	**$530,831**	**Consultant Services Subtotal Escalated**	**$553,355**

Construction			
Construction Contingencies	$116,760	Construction Contingencies Escalated	$127,281
Maximum Allowable Construction Cost (MACC)	$2,919,000	Maximum Allowable Construction Cost (MACC) Escalated	$3,180,126
Sales Tax	$258,040	Sales Tax Escalated	$281,130
Construction Subtotal	**$3,293,800**	**Construction Subtotal Escalated**	**$3,588,537**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$155,287		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$155,287**	**Project Administation Subtotal Escalated**	**$169,279**

Other Costs			
Other Costs Subtotal	**$225,000**	**Other Costs Subtotal Escalated**	**$241,920**

Project Cost Estimate

Total Project	**$4,425,918**	Total Project Escalated	**$4,774,091**
		Rounded Escalated Total	**$4,774,000**

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition	$171,000				
Pre-Site Development					
Other	$50,000				Intake Easement
Insert Row Here					Property is owned by DFW
ACQUISITION TOTAL	**$221,000**		**NA**	**$221,000**	

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Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis	$66,000			
Predesign Study	$143,000			
Other				
Insert Row Here				
Sub TOTAL	**$209,000**	**1.0258**	**$214,393**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$164,851			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$164,851**	**1.0379**	**$171,099**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation	$25,000			
Commissioning				
Site Survey	$15,000			
Testing	$15,000			
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review	$7,500			
Environmental Mitigation (EIS)				
Landscape Consultant				
Other				
Insert Row Here				
Sub TOTAL	**$62,500**	**1.0379**	**$64,869**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$74,063			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$74,063**	**1.0901**	**$80,737**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$20,417			
Other				
Insert Row Here				
Sub TOTAL	**$20,417**	**1.0901**	**$22,257**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$530,831**		**$553,355**	

Green cells must be filled in by user

Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$25,000			
G20 - Site Improvements				
G30 - Site Mechanical Utilities				
G40 - Site Electrical Utilities	$91,000			
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$116,000**	**1.0752**	**$124,724**	
2) Related Project Costs				
Offsite Improvements	$10,000			
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	**$10,000**	**1.0752**	**$10,752**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems				
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions				
Landscaping	$124,000			Incl. stormwater treatment
Grading	$185,000			
Paving	$521,000			Includes asphalt and gravel
Restrooms	$78,000			CXT vault toilet
Gates, Fencing, Signs, Security Sys	$57,000			
Elevated Launch Ramp/Launch Floats	$1,828,000			

Insert Row Here				
Sub TOTAL	**$2,793,000**	**1.0901**	**$3,044,650**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$2,919,000**		**$3,180,126**	

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7) Construction Contingency				
Allowance for Change Orders	$116,760			
Other				
Insert Row Here				
Sub TOTAL	**$116,760**	**1.0901**	**$127,281**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0901**	**$0**	
Sales Tax				
Sub TOTAL	**$258,040**		**$281,130**	
CONSTRUCTION CONTRACTS TOTAL	**$3,293,800**		**$3,588,537**	

Green cells must be filled in by user

Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0901**	**$0**	
1) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0901**	**$0**	
Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

Green cells must be filled in by user

Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$0				0.5% of total project cost for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

Green cells must be filled in by user

Cost Estimate Details

Project Management				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
Agency Project Management	$155,287			
Additional Services				
Other				
Insert Row Here				
PROJECT MANAGEMENT TOTAL	**$155,287**	**1.0901**	**$169,279**	

Green cells must be filled in by user

Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs	$80,000				
Hazardous Material Remediation/Removal	$75,000				
Historic and Archeological Mitigation	$70,000				
Other					
Insert Row Here					
OTHER COSTS TOTAL	**$225,000**		**1.0752**	**$241,920**	

Green cells must be filled in by user

C-100(2020)
Additional Notes

Tab A. Acquisition
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Tab B. Consultant Services
Insert Row Here

Tab C. Construction Contracts
Insert Row Here

Tab D. Equipment
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
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C-100(2020)

Updated June 2020

Quick Start Guide

GENERAL INFORMATION

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OFM Capital Budget Analyst

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FORM-CALCULATED COSTS (FEE CALCULATIONS)

1) A/E Basic Design Services: AE Fee % (x) (MACC + Contingency)

2) Design Services Contingency: Contingency % (x) Consultant Services Subtotal

3) Construction Contingency: Contingency % (x) MACC

4) Artwork: 0.5% (x) Total Project Cost

5) Agency Project Management (Greater than $1million): (AE Fee % - 4%) (x) (Acquisition Total + Consultant Services Total + MACC + Construction Contingency + Other Costs)

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Contact Information	
Name	Kristen Kuykendall
Phone Number	(360) 269-6433
Email	Kristen.kuykendall@dfw.wa.gov

Statistics			
Gross Square Feet		MACC per Square Foot	
Usable Square Feet		Escalated MACC per Square Foot	
Space Efficiency		A/E Fee Class	C
Construction Type	Civil Construction	A/E Fee Percentage	8.06%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	No
Inflation Rate	2.38%	Higher Ed Institution	No
Sales Tax Rate %	8.50%	Location Used for Tax Rate	Clallam County
Contingency Rate	4%		
Base Month	June-20	OFM UFI# (from FPMT, if available)	A26148
Project Administered By	Agency		

Schedule			
Predesign Start	July-19	Predesign End	June-20
Design Start	July-21	Design End	July-22
Construction Start	July-23	Construction End	September-24
Construction Duration	14 Months		

Green cells must be filled in by user

Project Cost Estimate

Total Project	**$3,681,435**	Total Project Escalated	**$3,969,439**
		Rounded Escalated Total	**$3,969,000**

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Updated June 2020

Agency	Washington Department of Fish and Wildlife
Project Name	Snow Creek Reconstruct Facility
OFM Project Number	30000826

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$171,000**	**Acquisition Subtotal Escalated**	**$171,000**

Consultant Services			
Predesign Services	$209,000		
A/E Basic Design Services	$137,540		
Extra Services	$50,000		
Other Services	$61,793		
Design Services Contingency	$18,333		
Consultant Services Subtotal	**$476,667**	**Consultant Services Subtotal Escalated**	**$496,388**

Construction			
Construction Contingencies	$95,120	Construction Contingencies Escalated	$103,691
Maximum Allowable Construction Cost (MACC)	$2,378,000	Maximum Allowable Construction Cost (MACC) Escalated	$2,590,545
Sales Tax	$210,215	Sales Tax Escalated	$229,011
Construction Subtotal	**$2,683,335**	**Construction Subtotal Escalated**	**$2,923,247**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$135,433		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$135,433**	**Project Administation Subtotal Escalated**	**$147,636**

Other Costs			
Other Costs Subtotal	**$215,000**	**Other Costs Subtotal Escalated**	**$231,168**

Project Cost Estimate

Total Project	**$3,681,435**	Total Project Escalated	**$3,969,439**
		Rounded Escalated Total	**$3,969,000**

Cost Estimate Details

Acquisition Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Purchase/Lease					
Appraisal and Closing					
Right of Way					
Demolition	$171,000				
Pre-Site Development					
Other					Intake Easement
Insert Row Here					Property is owned by DFW
ACQUISITION TOTAL	**$171,000**		**NA**	**$171,000**	

Green cells must be filled in by user

Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis	$66,000			
Predesign Study	$143,000			
Other				
Insert Row Here				
Sub TOTAL	**$209,000**	**1.0258**	**$214,393**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$137,540			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$137,540**	**1.0379**	**$142,753**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation	$20,000			
Commissioning				
Site Survey	$15,000			
Testing	$10,000			
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review	$5,000			
Environmental Mitigation (EIS)				
Landscape Consultant				
Other				
Insert Row Here				
Sub TOTAL	**$50,000**	**1.0379**	**$51,895**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$61,793			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$61,793**	**1.0901**	**$67,361**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$18,333			
Other				
Insert Row Here				
Sub TOTAL	**$18,333**	**1.0901**	**$19,986**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$476,667**		**$496,388**	

Green cells must be filled in by user

Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$20,000			
G20 - Site Improvements				
G30 - Site Mechanical Utilities				
G40 - Site Electrical Utilities	$85,000			
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$105,000**	**1.0752**	**$112,896**	
2) Related Project Costs				
Offsite Improvements	$10,000			
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention				
Other				
Insert Row Here				
Sub TOTAL	**$10,000**	**1.0752**	**$10,752**	
3) Facility Construction				
A10 - Foundations				
A20 - Basement Construction				
B10 - Superstructure				
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems				
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems				
F10 - Special Construction				
F20 - Selective Demolition				
General Conditions				
Landscaping	$124,000			Incl. stormwater treatment
Grading	$185,000			
Paving	$380,000			Includes asphalt and gravel
Restrooms	$78,000			CXT vault toilet
Gates, Fencing, Signs, Security Sys	$57,000			
Elevated Launch Ramp/Launch Floats	$1,439,000			

Insert Row Here				
Sub TOTAL	**$2,263,000**	**1.0901**	**$2,466,897**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$2,378,000**		**$2,590,545**	

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7) Construction Contingency				
Allowance for Change Orders	$95,120			
Other				
Insert Row Here				
Sub TOTAL	**$95,120**	**1.0901**	**$103,691**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0901**	**$0**	
Sales Tax				
Sub TOTAL	**$210,215**		**$229,011**	
CONSTRUCTION CONTRACTS TOTAL	**$2,683,335**		**$2,923,247**	

Green cells must be filled in by user

Cost Estimate Details

Equipment					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
E10 - Equipment					
E20 - Furnishings					
F10 - Special Construction					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0901**	**$0**	
1) Non Taxable Items					
Other					
Insert Row Here					
Sub TOTAL	**$0**		**1.0901**	**$0**	
Sales Tax					
Sub TOTAL	**$0**			**$0**	
EQUIPMENT TOTAL	**$0**			**$0**	

Green cells must be filled in by user

Cost Estimate Details

Artwork					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Project Artwork	$0				0.5% of total project cost for new construction
Higher Ed Artwork	$0				0.5% of total project cost for new and renewal construction
Other					
Insert Row Here					
ARTWORK TOTAL	**$0**		**NA**	**$0**	

Green cells must be filled in by user

Cost Estimate Details

Project Management				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
Agency Project Management	$135,433			
Additional Services				
Other				
Insert Row Here				
PROJECT MANAGEMENT TOTAL	**$135,433**	**1.0901**	**$147,636**	

Green cells must be filled in by user

Cost Estimate Details

Other Costs					
Item	**Base Amount**		**Escalation Factor**	**Escalated Cost**	**Notes**
Mitigation Costs	$80,000				
Hazardous Material Remediation/Removal	$75,000				
Historic and Archeological Mitigation	$60,000				
Other					
Insert Row Here					
OTHER COSTS TOTAL	**$215,000**		**1.0752**	**$231,168**	

Green cells must be filled in by user

C-100(2020)
Additional Notes

Tab A. Acquisition
Insert Row Here

Tab B. Consultant Services
Insert Row Here

Tab C. Construction Contracts
Insert Row Here

Tab D. Equipment
Insert Row Here

Tab E. Artwork
Insert Row Here

Tab F. Project Management
Insert Row Here

Tab G. Other Costs
Insert Row Here

Appendix G – Summary of Feasibility Report

Snow Creek Feasibility Budget

No In Water

Estimate Type: **Budget** By: KK

Estimating Contingency is included in each item below 25%

Inflation adjustment from the May **2018** cost basis that this spreadsheet is current to, is included in each item below

# yrs to mid construction of last phase	% infl / yr	Inflation after cost basis:
2.0	0.0%	0.0%

0-2

Mobilization (Mob cost is auto added to ea. item below) 4%

Overhead & Profit (OH & P) included in the cost of each item below

Item Description	Unit Cost	Unit	Quantity	Extension	Current BN Extension w/ contingency & mob.	CONSTRUCTION BIENNIUM Current	
< Origin							
PROJECT ELEMENTS							
Element Lower Site Upland							
				$0	$0		
Demolition of office and restroom	$35	sf	1200	$42,000	$55,000		
Grading	$2	sf	43560	$65,340	$85,000		
Paving/ Striping	$9	sf	6400	$57,600	$75,000		
Landscaping	$8.00	sf	10,000	$80,000	$50,000		
Septic decommission	$15,000	ls	1	$15,000	$20,000		
Electrical Upgrades with lighting	$75,000	ls	1	$75,000	$75,000		
Landscaping	$65,000	ls	1	$65,000	$0		
CXT	$38,000	ea	1	$38,000	$49,000		
Stream/Shoreline Restoration	$350	lf	250	$87,500	$0		
Temp Office Pad with power/water	$25,000	ea	1	$25,000	$0		
bridge	$18,000	ea	1	$18,000	$0		
Element Subtotal:					$409,000	1	$409,000 0
Element Lower Site Boating							
				$0	$0		
Floats (8x12) 300 lf	$83	sf	2,400	$199,200	$0		
Pier (4x80)	$623	lf	80.00	$49,840	$0		
Foundations/anchors	$7,000	ea	24.00	$168,000	$0		
Buoys	$3,500.00	ea	8	$28,000	$0		
Boat Ramp (18x150) on-grade (opt)	$750	lf		$0	$0		
				$0	$0		
Boat Ramp (18x150) elevated	$925,000	ea	1	$925,000	$0		
Mitigation	$100,000.00	ls	1	$100,000	$0		
				$0	$0		
Element Subtotal:				$0	$0	1	1
Element Upper Site							
Landscaping	$25,000	ls	1	$25,000	$33,000		
Campsites	$775	ea	25	$19,375	$0		
Septic	$35,000	ea	1	$35,000	$0		
Water System	$35,000.00	ls	1	$35,000	$0		
Grading/ trailer removal	$2	sf	43560	$87,120	$113,000		
Paving	$7	sf	11000	$77,000	$0		
ADA Restroom with Showers (20x16)	$350	sf	320	$112,000	$0		
Electical Upgrades and Lighting	$40,000.00	ls	1	$40,000	$52,000		
Intake (concrete vault with screens)	$45,000	ls	1	$45,000	$0		
Element Subtotal:				$0	$198,000	1	$198,000 0
Element General							
				$0	$0		
Gates	$2,300	ea	2	$4,600	$6,000		
Fencing	$14	lf	2000.00	$28,000	$36,000		
Signs	$1,500.00	ea	2	$3,000	$4,000		
Interpretive Gazebo	$4,500	ea	1	$4,500	$6,000		
Park Model Office/residence	$100,000	ea	1	$100,000	$0		
Security cameras	$800	ea	4	$3,200	$4,000		
				$0	$0		
				$0	$0		
Element Subtotal:				$0	$56,000	1	$56,000 0
				Estimated MACC at respective mid-biennia:			$663,000
					Sum total:		$663,000

INSTRUCTIONS: Enter '1' for the biennium in which the element is projected to be constructed.

Notes:

1 This estimate is based on information from XXXX or a meeting / discussion with XXX on (date). Only a walk of the site has been conducted, no thorough investigations. Soils are assumed to be non-organic, non-clay, suitable for normal foundations, wetlands assumed to not be in construction area, E&T species are not an issue. Also it is assumed that funding is from direct appropriation from the Legislature to WDFW, that no funds from other agencies or Federal or Tribe is involved. If any of these assumptions is incorrect the effect on the estimate may be significant and the estimate must be redone.

2 This estimate was checked by the Chief Engineer (date)

3

Snow Creek Cost Analysis

Capital Cost Estimate			MACC	
Restroom Renovations for ADA Compliance			$	200,000.00
Grading			$	55,000.00
Electrical updgrade			$	85,000.00
Plumbing upgrade			$	85,000.00
Parking Area			$	175,000.00
Camping pads			$	40,000.00
Boat Ramp			$	900,000.00
Water system/diversion			$	175,000.00
Septic System			$	95,000.00
office			$	125,000.00
bridge			$	40,000.00
floats			$	750,000.00
mooring			$	90,000.00
subtotal			$	2,815,000.00
design		10%	$	281,500.00
demolition			$	115,000.00
permitting			$	50,000.00
mitigation		10%	$	281,500.00
contingency		15%	$	422,250.00
	TOTAL		$	3,965,250.00

Operating Costs			annual
Staff	60000	yr	60000
Garbage	40	wk	2080
Electical	600	mo	7200
Water	800	mo	9600
Float removal	3500	yr	3500
Landscaping tools	200	mo	2400
restroom supplies	300	mo	3600
septic maint	500	mo	6000
misc	5000	yr	5000
			100,000/yr

Revenue			
Boat Ramp	Free with discover pass		
Camping	$	40.00	night
total operating days		120	May-Sept

Occupancy	# of days		reveue	spaces filled
100%	45	$	36,000.00	20
50%	60	$	24,000.00	10
80%	15	$	28,800.00	16
	Total	$	88,800.00	

Snow Creek Resort Feasibility Study

PREPARED FOR OFM

Kristen Kuykendall, PE | WDFW | 9/1/2018

Table of Contents

To access the sections, click on the title and you will be directed to the first page of that section.

Site Summary

BACKGROUND/HISTORY

Located just east of Neah Bay, Snow Creek Resort is a 7.42 acres parcel purchased with a 1978 Land and Water Conservation Fund Grant for the purpose of establishing a boat launch. The site was operated and maintained by a contracted vendor until site was gated and buildings locked in 2017 due to non-compliant infrastructure.

The site is divided into two lots with state route 112 (Strait of Juan de Fuca Highway) running through the middle. The lower lot contained the majority of the amenities. The upper lot was used for overflow camping, parking, and contained the water treatment facility.

The site has been popular for camping, halibut fishing, whale watching, bird watching, bottom fishing (ling cod), boating, mooring and scuba diving. Several attempts have been made through the years to obtain funding for upgrading the boat ramp from a high maintenance rail launch to a more updated and user friendly, elevated or on grade concrete ramp. However, expansion of the ramp was not well received by the community which manage their own ramps and were concerned about the financial impacts a state ramp would have within a geography of private ramps. It was concluded that the site would operate as-is with a low-volume rail launch and adequate camping. The site holds a lot of potential and in working with the community we are looking at the viability of managing a full-service access site compared to managing a primitive, low maintenance access.

At the peak of operations in the early 1990's the Snow Creek Resort amenities included:

- Surface water source with a community water treatment facility located at upper lot and piped to the lower lot,
- Electricity at upper and lower lots,
- flush restrooms, showers at lower lot,
- campsites with trailer outlets and water at both lots, septic hookups at lower lot,
- rental cabins with power, water, septic, at lower lot,
- rail launch with crane hoist,
- pier,
- dock with removable floats, (up to 600 lf)
- mooring buoys, (up to 16)
- office with snacks and bait, capable of credit card transactions,
- parking areas for cars, boats, trailers at both lots
- picnic areas with water view at both lots
- tent sites primarily at the lower lot across the creek

Modifications to the site since purchase include, the old residence being removed and replaced with a concrete masonry restroom and showers in the mid 1980's. The fuel system was decommissioned. The site has continued to go through minor adjustments including the addition and removal of cabins, relocations of RV sites, addition of storage containers. Full removal of the pier system, floats, and mooring buoys due to lack of an aquatic lease.

RCO PURCHASE AGREEMENT

The Snow Creek Resort site was purchased with state Recreation and Conservation Office (RCO) funds for water access. The language in the RCO agreement states that the purchase of the property was for installation of a boat launch. The language of the agreement is in perpetuity. In reviewing the contract, the property acquired in 1978 must include a boat ramp to meet the original contract agreement. RCO does maintain language for conversions of property from the contract requirements but only if a replacement of similar opportunity (equivalent site with similar boating opportunity geographically) is developed without financial assistance from RCO. If a boat ramp is not provided at this site, another nearby site must be acquired and developed in exchange. This option was not included in the feasibility analysis as any other site would need a feasibility or pre-design process of its own to determine eligibility.

FEASIBILLITY OPTIONS

Through the feasibility process the following project concepts were compiled based on some critical pathway evaluations.

- The project must be permittable or environmentally feasible.
- The project must be palatable to the local community and not cause economic or social hardship.
- The project must meet the criteria of the original Land and Water Conservation Fund grant.
- The project must result in a product that is maintainable, physically and financially and provide motorized boating access.

CURRENT STATE

At the Snow Creek Resort, the vendor has been released, and there is currently no full time caretaker. Cabins were removed, water system has been decommissioned due to lack of a consistent water system monitor. Bathrooms are non-ADA compliant, functional, but in need of updating. Boarding dock had rusted through and was removed in its entirety. Rail system exists but is not structurally fit for use. The motor system for the hoist exists on site but shows considerable rust and wear. The office area has been vandalized and is no longer in a usable condition. The power and water infrastructure are intact but decommissioned. The septic system condition is unknown.

The site is gated and locked. Walk-in only to the public until further notice. Current usage includes beach access, picnicking, kayaking, and wildlife viewing at the lower lot. The upper lot is not being used by the public at this time, although picnicking and wildlife viewing are possible.

UPLAND SYSTEMS EVALUATED

Water

Water system consists of a surface water diversion located on a tributary stream to Snow Creek. Water system is regulated as a commercial system and requires consistent monitoring, water filtration, and water quality testing for turbidity. The water system services the restroom and water spigots throughout the lower camping area.

The water right for the parcel is 0.0500 CFS (22.45 gpm). The surface diversion directly from Snow Creek consists of a 1 ½ -inch hose, a few sand bags, and a pump system. Snow Creek is a fish bearing stream. WDFW documents winter steelhead, coho, and kokanee presence in Snow Creek, in the vicinity of the intake. Therefore, it would be a requirement to formalize a fish friendly intake complete with screening prior to starting the system back up.

The water system received considerable upgrades in 2014 and 2015 to bring it into compliance with Department of Health. Upgrades included sand filters, chlorinators, turbidity meters, and electrical control panel upgrades. Due to the nature of the surface water intake, the group public use, and the most recent Department of Health requirements. Running water at the site is only feasible if a full time caretaker is available to perform the following:

MONITORING REQUIREMENTS:

- Raw water fecal coliform is due monthly when the system is in operation.
- Distribution coliform monitoring is due monthly when the system is in operation.
- Nitrate shall be monitored monthly for this water system.

- The operator shall check the turbidity of the system at least twice per day once in the morning and once in the afternoon and record the readings. In the event of heavy weather or rain the meters shall be checked more than twice per day with records being kept.
- The operator shall check the daily residual in the distribution system and monitor the online chlorine analyzer and record the data.
- The operator shall take weekly samples for verification of the online turbidity meters by taking grab samples and analyzing with the bench top turbidity meter.
- The operator shall make a monthly calibration of the bench top turbidity meter with StablCal standards for verification of its accuracy.
- The operator shall test the raw water side of the system monthly and record the findings during normal operation. This includes when the system is first started in the spring for ripening to the day of shut down.
- The operator shall test for coliform in the distribution system monthly when the system is in operation and record the data.
- The operator shall test for nitrate annually at the beginning of the season of operation and record the data.
- The operator shall operate the intake pump in the automatic mode during normal seasonal requirements which is controlled by the water level in the slow sand filter bed.
- The operator shall follow the design operating procedure for seasonal starting the slow sand filter system.
- The operator shall review and become familiar with the valve start up and valve run positions for correct operation of the water system.

If running water is used at the site, options considered probable and feasible for this water system include:

- Complete formalization of the intake with either a screened vault or inline screen.
- Modernization of the water treatment with real-time monitoring and reporting.
- Water delivery to upper and lower sites for domestic use.

The other potential option would be to fully decommission the water system and make the site available for dry camping and water access only.

Septic

The existing septic size and location had been located off of existing drawings. The septic system consists of several barrel type tanks about the lower property, and a shower/ flush restroom all draining to 3 laterals located against the eastern hillside. The septic system will need to be redesigned to accommodate the needs of the area. Options considered for septic include:

- No septic at all – This would be the primary option if water system is not or cannot be properly maintained
- New septic at the upper lot – this option could be helpful if shower and flush restrooms were moved to that location or if full RV hook-ups are created.

- Clean and maintain existing system – The current system may still be viable for the restrooms. All recent connections add-on from the removed cabins would need to be fully decommissioned.

Electrical

Much of the electrical work done for the camping hookups was not fully documented. For a feasibility assessment it is assumed that all electrical work will be redone and up to the current code. The primary power source is intact. All utilities would be located and documented prior to property redevelopment. Options for electrical will be based on the final design outcome, but could include the following:

- Full rewiring of all of the RV pedestals at both the upper and lower lots.
- Removal of all of the electrical service from the upper and lower lot and only maintain safety lighting.
- Upgrade all agency controlled power to underground service to minimized unsightly overhead power lines (excluded the PUD lines that run over the highway).

Gantry/Crane/Rails

Gantry is fully rusted through with large perforations in the webbing. Current gantry is beyond repair and would need full replacement. Hoist is no longer present, should a rail launch be installed on site, a new system would be required. Rails are in decent condition with minor rust, however the rail supports are nearly rusted through with several lengths of rail no longer supported at all. Although discussed further in the Mott MacDonald Report attached, the feasibility of running a rail launch is unlikely. The liability, costs, and high maintenance both financially and with staff time make this a challenging option. Rail launches are further complicated by Labor and Industries which may be able to regulate the rail launch similar to a carnival ride if boaters are allowed to ride in the boat while it is on the rails. User safety is a concern with rail launch systems, making the rail launch a feasible but unlikely option.

On Grade Ramp

Another option considered, was the on-grade concrete plank boat ramp. The on-grade ramp is low-cost easy to maintain with standard heavy equipment for clearing sand and debris. However, the site does not support an on grade launch due to the shallow nature of the beach profile. The beach is only running at a 4%-5% grade. Trying to launch a boat at these slopes would require the user to back their vehicle into salt water until the front bumper in nearly touching water. The on-grade ramp would essentially serve as a hand-launch requiring the user to push their shallow hull boat off of the trailer. Obtaining the 3 feet of water depth typically deemed the minimum to

launch would be difficult. An on grade ramp would not meet the design elements recommended by the State Organization for Boating Access, (SOBA).

Pier

The pier to float system consisted of a fixed pier with a long gangway to a series of floats. The pier that existed was redecked and handrailing added to improve safety a few years back. The pier was subsequently demolished entirely due to structural deficiencies, rust, and missing structural components. The gangway was preserved but is in rough shape, and the floats are completely out of compliance with standards included use of Styrofoam, no light penetration, and no grounding prevention devices. The floats, pier, and gangway would need complete replacement.

Restroom

The restroom facility was built in 1985 and has been maintained. The shell, (roof, walls, foundation) are in reasonable shape. However, the shower mechanisms, venting, and mechanical systems are at life expectancy. The entire structure would need to be remodeled or replaced to accommodate the Americans with Disabilities Act. Current layout and drawings of the restrooms are included in the supplemental information of this report.

Options considered for this building would include the following:

- Remodel existing structure to bring up to code.
- Retain flush restrooms but remove showers
- Add out-door beach hose off system

- Completely replace with similar toilet/shower building
- Completely replace with vault toilet/ no running water
- Duplicate a similar system at the upper lot
- Provide seasonal water/ flush system and year-round vault

As the site is primarily seasonal use, maintenance costs could be reduced by keeping the showers/ flush restrooms limited to seasonal usage as well. A combination of vault system and running water system would allow for all-season site usage with only summer/peak time water usage.

Upper Lot

The Upper lot of the Snow Creek Resort is the location for the resort's water treatment building. It is also overflow parking, has water and power hook-ups for RV's, and is a storage location for floats, buoys, containers, anchors, miscellaneous storage, and some picnic sites. Although not waterfront property, the site does provide amazing views of the Strait, Sail Rock, and with its large trees, often hosts bald eagles. The site does not currently have a septic system and water is limited to a few RV hook-up sites. Historically, the on-site vendor had portable toilets brought in to the upper lot due to the distance to the lower lot where the amenities were. The water treatment facility is fenced off for security. The site does need some attention as the previous tenant left behind a lot of material and supplies. To fully develop the upper lot a pedestrian route would need to be created to access the lower lot and the water. A trail location was scouted near the property boundary that would take users down the hill to the lower lot. Crossing State Route 112 would still be necessary to get to the waterfront.

Options for the upper lot include:

- Make the site a primitive picnic area, and parking only, remove RV sites and no running water, add a vault toilet,
- Develop the site as the primary campground complete with showers and septic,
- Manage the site as dry camping with vault toilet and overflow parking for trailers and cars.

Camping Areas

Camping is an important part of the Snow Creek Resort. Often boaters will spend several days in the area during halibut season due to the unique timing restrictions. Early mornings on the water and long drives from all over the Northwest combined with very limited lodging opportunities make camping, RV'ing, and other overnight stays very popular in the area. Although no formal surveys of users was conducted, interviews with previous users and current RV campers revealed that campers can be flexible. Preference is for the most amenities possible. However, most interviewed could sustain with dry camping, most had small generators for power, and all could manage without a septic system or dump station on site if another toilet option was available. Most preferred a running water source as well even if it wasn't an individual hook-up. Safety and security were important to campers. Having a caretaker to help answer questions and monitor activities was preferred.

WATER ACCESS REQUIREMENTS

Mooring buoys, boat ramp, pier, floats, and all infrastructure below Ordinary High Water or Mean High Water is within the regulatory domain of the Department of Natural Resources and the Army Corps of Engineers. All work done must be approved by DNR and qualify for an aquatic lease from the agency. In addition, all designs and construction must comply with Federal in-water requirements. Due to the unique and complicated nature of coastal water construction and design, a separate report was generated by a coastal engineering consultants with Mott MacDonald. Their report can be found in the Technical Memo of this document. Their report consists of a series of water access options, probable costs, and probable permitting constraints. Permitting constraints from DNR and the Army Corps of Engineers dictate everything from protected habitats to design elements including minimum water depths for floats and buoys, percent light passage through floats, appropriate methods to avoid grounding of floats and buoys and distances from protected eel grass beds.

DNR who owns the aquatic lands in the state of Washington, have direct capability to dictate the infrastructure on their land. It would be necessary to apply for an Aquatic Lease as part of this

project for any infrastructure within the waterline. Specific design details needed for approval from DNR would be developed within the design and permitting phase of the project.

For example, in the case of the desired mooring buoys that are extremely popular with boaters in the area, DNR requires the following:

1. Mooring buoys must be anchored where the water will be deeper than 7 feet at Extreme Low Tide or 11.5 feet at Mean Lower Low Water.
2. The buoy must meet or exceed all United States Coast Guard regulations.
3. For visibility and identification:
    a. The buoy must float at least 18 inches above the surface of the water
    b. The buoy must be reflective white with a blue stripe.
    c. Mark the buoy with the DNR license numbers so that they are visible from 20 feet.
4. For anchor design:
    a. The anchor must be sufficient to hold the vessel in all weather.
    b. The licensee is responsible to ensure the anchor does not move.
    c. If the anchor moves offsite, DNR may terminate this license and require removal of the buoy and anchor.
    d. Use an anchor system that prevents vessel and line dragging and minimizes impacts to the bottom. DNR prefers embedded anchors unless not feasible due to substrate or other site- specific conditions.
    e. DNR does not allow a midline weight used as part of the anchoring system.
5. For buoy design:
    a. All buoys shall have a mid-line float system installed.
    b. The mid-line float must hold the tether line off the bottom at all tides.
    c. Locate the mid-line float at a distance from the anchor that is equal to 1/3 of the water depth at mean high water (MHW).

There are also state laws that dictate design criteria such as the rails of a rail launching system must lie on and follow the grade of the existing bed and bank (WAC 220-660-390). Which means elevated rails may not be feasible. If a rail system is designed it would most likely be identical to the existing system.

The prepared report from Mott MacDonald will further describe the physical conditions of the existing site, the likely options available for construction, and the challenges with each option for ramp design, float design, pier requirements, and mooring buoy design.

We do know that the configuration of the rail launch, pier, floats and buoys as they have existed over the last few decades no longer meet any of the current codes, standards, or laws. As a result of research done for this feasibility report, it is apparent that significant changes will be required for in water work over the past float and mooring configurations. The numbers of mooring spaces will be reduced at minimum. The numbers used for the economic assumptions were generated off the new requirements and not historical data.

In this photo the previous drums filled with Styrofoam (buoys) and drums filled with concrete (anchors) are no longer allowable.

Environmental

In addition to the design requirements for in-water structures, there are also protected habitats and species. In this area, a truncated list of protected species found in the waters (Strait of Juan de Fuca) include: Killer Whales, Sea Turtles, Salmon, Bull Trout, Smelt, Herring, Sand Lance (forage fish), marbled murrelets, and their habitats, such as forage fish spawning habitats, eel grass, off channel rearing habitats, large trees. State and federal laws require either no development or heavily mitigated development if any of these species are impacted by the construction or the final product.

In determining feasibility, a preliminary eel grass survey was performed by the environmental group at Shannon and Wilson, an environmental engineering firm. A snorkel survey was completed out to a -7 tidal elevation. No eelgrass plants were detected. There were several other species of macroalgae detected including the ubiquitous bull kelp and sea grass detected but those are not as critical as eel grass. The survey findings and detailed report are included with the supplemental information at the end of this report.

The lack of eelgrass and minimal intertidal drift makes a boat ramp more feasible with less environmental impact at the tidal levels surveyed. Nonetheless, significant mitigation efforts to restore beachfront will most likely be required.

Also a review of forage fish spawning locations was reviewed. The nearest spawning beach is a mile to the east. Although precautions will be required, including careful construction timing, it does not appear that our project will impact any known forage fish spawning grounds. As part of the permitting process, it would be expected that we would survey for forage fish eggs during the appropriate windows to ensure that we are minimizing impacts to the protected species. As with eelgrass surveys, forage fish surveys must be completed within a few months of construction for accuracy.

As for all of the other protected species, during the permitting process we will work with state and federal regulatory staff to ensure all design elements meet the highest level of habitat protection, adhering to the state hydraulic code, Department of Natural Resources aquatic lease requirements, and all federal regulations.

At this time with the feasibility evaluation, it does not appear that in-water construction elements would be prohibited.

Archaeological

The Snow Creek Resort is located adjacent to the Makah Reservation. It is well documented that tribal fishing and small villages existed all up and down the Strait. The resort site was heavily modified in the 1920's when the state highway was developed. A great deal of fill was pushed into the small harbor and modified it from its natural state. We have consulted with the Department of Archaeology and Historic Preservation (DAHP) regarding work at the site in the past. We have also conducted two recent archaeological surveys in the area. We have those reports, we will be consulting with all pertinent tribes and DAHP with regards to any work being performed and will take all required precautions to protect and avoid any potential cultural sites in adherence with Federal section 106 requirements as well as Washington State Executive Order 05-05.

OTHER CONSIDERATIONS

Community support

Any development or redevelopment of this site needs the support of the community. Negative impacts to the community or to cultural resources would drastically limit the options with this site. In deciding what is feasible, we have identified that we cannot reduce income to the surrounding businesses, we cannot reduce habitat, and we must maintain a good neighbor policy. As we move forward with design and more details, we will be working closely with stakeholders to provide the best project possible for the users, the community, in such a way that it can be maintained and be complimentary to the existing businesses in the area. Due to the remote nature of the site, the local community would be invaluable to keeping the site safe, secure, and maintained. Boat ramps and mooring in this area is getting more and more restricted and limited. Mandated regulatory changes in overwater structures and environmental protections have made water access and mooring the limiting factor to tourism in the area. An increase in water access would have great economic benefit to the community when managed cooperatively with the other boating access opportunities.

Land and Water Conservation Fund

This site was purchased with grant dollars that specifically require the site to be used for only the purpose identified in the grant. A copy of the agreement is included in the supplemental information. The agreement for the purchase of the site was for the construction of a boat ramp and corresponding recreational access. In reviewing the language it is clear that a boat ramp is part of the long term obligation of the grant. The LWCF grant also outlines that any conversion of the usage would require WDFW to replace the usage in kind at a similar location. That is, if a boat ramp is not in use at the current site, a second site of similar size, of a similar location,

capable of supporting a boat ramp, would have to be purchased with agency funds to replace the opportunity.

Ability to hire responsible vendor/caretaker

One of the biggest challenges for this project and determining the best design track to follow is the ability to find a full-time, seasonal caretaker, licensed water system monitor, maintenance person that can also collect fees. Through the economic feasibility review, it was determined that it is not practical for WDFW to set up a fee collection system at this site. However, it would be feasible and beneficial to manage a vendor who under contract with WDFW, would have the ability of collecting fees and managing the site in accordance with WDFW requirements. This site is remote and far away from WDFW support staff. It is not commutable for any current WDFW staff to perform the twice a day monitoring required of the water system. Nor is it feasible to have current staff monitor camping activities at night. If the site is to have running water, and camping, an on-site vendor and/or camp host must be available. This option appears to be feasible. WDFW has reviewed the processes and procedures that allowed the site to slip into disrepair and will restructure the lease/vendor agreement and increase oversite in the future to avoid similar issues to recur.

Seasonal floats imperative, high maintenance

Users interviewed proclaimed that boating access floats that allow for temporary tie up of watercraft and to assist with loading and unloading is critical to the boating community. Of great desire are also mooring floats that would allow for users to come ashore for the evening to camp. DNR and WDFW highly regulate the usage of overwater structures. To add additional challenge the bedrock evident in the area will most likely prevent the use of piling to secure the floats or require coring the rock to secure piling. As with the previous vendor, all floats would have to be removed and reinstalled seasonally.

Popular when kept up and available.

Throughout this feasibility study it is clear that users enjoy this location, and that the site can be fiscally profitable for an outside vendor. Historically launching and mooring were at full capacity during the summer months. As maintenance began to wane, so did users. In the recent past, the site became less inviting, looking more like a private property rather than a public access site. Should the site be modernized, clean, and maintained, the number of users would greatly increase back to the historical numbers.

2002 WDOE oblique photo of the Snow Creek stream mouth located east of Neah Bay.

COST ESTIMATES/ ANNUAL MAINTENANCE COSTS

In the supplemental information of this report, several versions of preliminary cost estimates were developed. They include the following options;

1. Water system- upgrade
2. Bathrooms 2- ADA flushing no showers
3. Bathrooms 2 – ADA flushing with showers remodel and new
4. Bathrooms, 2 ADA Vault
5. New Rail launch in existing footprint with crane*
6. New dock with floats*
7. New mooring buoys*
8. New camp host site with power and water
9. ADA loading platform
10. Pedestrian Bridge
11. Camp site with power only/ power and water
12. New gravel parking
13. Stormwater treatment
14. Elevated Launch*
15. Lighting system
16. New septic
17. Full site demolition
18. Fencing/Gate
19. Signage/kiosk/tribal information
20. Mitigation costs (restoration of creek)

*- included in Mott MacDonald Technical Memo

These cost estimates were then bundled into project estimates based on the presence of a water system vendor, a camp host, both and neither.

REGIONAL RECREATION COSTS

Washington Coast and Western Strait of Juan De Fuca Water Access Fees

8/15/2018				Compiled by	L. Sater
		Moorage $/ft	**Launch**	**Dry Camping**	**Full Hookup**
Neah Bay		$ 1.00	$ 20.00	$ 25.00	$ 40.00
Sekiu		$ 1.00	$ 15.00	$ 30.00	$ 40.00
La Push	Quileute Marina*	$ 0.75	$ 15.00	$ 25.00	$ 45.00
Westport	Marina Totem RV & Trailer	$ 0.75	$ 8.00	$ 20.00	$ 35.00
	Average	**$ 0.88**	**$ 14.50**	**$ 25.00**	**$ 40.00**

* Moorage is $15 per vessel. $0.75/ft assumes 20' average boat length

ESTIMATED MAXIMUM REVENUE

Source	Rate	#Available	Days open	Occupancy	Usage/Yr	Total
Buoy Mooring	$ 15.00	12	120	0.75	1080	$16,200
Float Mooring	$ 20.00	12	120	0.75	1080	$21,600
Launching	$ 10.00		150		1500	$ 15,000
RV Hookup	$ 40.00	16	120	0.75	1440	$ 57,600
RV Dry	$ 20.00	10	150	0.6	900	$ 18,000
Tent	$ 15.00	10	150	0.6	900	$ 13,500
				Max. Income		$141,900

POSSIBLE COMBINATIONS

- Full amenities including campground at both upper and lower site with caretaker, water system, and boat launch, pier, mooring floats and buoys. Open Seasonally.

- Typical WDFW – vault, lighting, typical self-launching ramp with floats, non-potable water. No camping, just parking. Open year round.
- Primitive WDFW- vault , minimal safety lighting, hand launch, parking. Open year round.
- Hybrid Option of full amenity camping at the upper site and typical WDFW at the lower site. Seasonal and year round operations. Option of adding all mooring options as vendor is secured. (Preferred Option)

Option 1 – Full time caretaker:

Project Scope

To provide all the historic functions of the Snow Creek Resort, including boat launch, floats, mooring, camping, running water, and powered campsites, a full time seasonal staff would be required to operate and maintain the facility, as well as provide security and collect fees. With a full time staff May-September, the water system could be adequately tested and operated so showers and flush restrooms would be possible. Overnight camping and RV hook-ups could be allowed. Floats and mooring buoys could be installed, and monitored during periods of rough weather and removed as necessary. A boat launch could be operated, monitored, and maintained.

Project Requirements

Demolish all existing infrastructure except restroom structure. One full time staff, new resort model mobile home, new boat ramp construction, new float construction and installation, new septic system, new electrical throughout the site, gravel entrance, restart water system, delineated parking areas, new helical screw type mooring anchors. Remodel of restroom and showers would allow for ADA accommodation. In addition, a year round security plan would need to be implemented to prevent vandalism and theft in the off season.

Project Income

Sources of income would come from any approved fees including launching fees, mooring fee, Discover Pass fee, camping fees. Annual revenue would be similar to the $141,900 identified in the Maximum Income section.

Project Costs

Capital costs for all project options are shown in the supplemental information. Operating costs for option one would require staffing, water, power, supplies, and equipment for float removal and installation, landscaping maintenance and cleaning. Capital improvements for maximized revenue are identified as $3.4M in capital construction costs.

Option 2-No water system vendor

Project Scope and Requirements

The water system requires daily or twice daily monitoring to meet Ecology and Department of Health standards. Without a designated water system monitor there cannot be public water. Without potable water a dry campground, parking, mooring, and boat ramp could be feasible. The only requirement would be a camp host that could monitor activities and collect fees. The project could consist of ramp, floats, mooring, dry camping, primitive tent camping, parking. The

project as an access site would still be required to have adequate restroom facilities. As with option 1, the site would be demolished, vault toilet systems would be implemented at either the waterfront site or at both sites. A discussion on preserving water rights and the possibility of non-potable water uses would be needed. The site could still functionally support water access, picnic tables, wildlife viewing. Most of WDFW access sites do not have water available. This option would be consistent with other similar launches and water access owned by WDFW.

Project Revenue

Revenue over option 1 would be reduced due to lack of hook-ups. Overall occupancy may also be reduced as most RV users prefer water availability. Revenue reduction is estimated at $28,800, in changing revenue for full hook-up to dry camping. Total annual revenue would be closer to $113,100.

Project Costs

Project costs for option 2 would be the equivalent of option 1 with a reduction in cost for the restroom facility rebuild and a reduction in the need for a screened surface water intake, reducing the cost by $200,000 or more. Restroom construction would be reduced by close to $100,000 and septic could be eliminated for an additional $46,000 in savingsHowever, in the last several years over $100,000 has been invested into the water system to keep it operational. That investment would not be recoverable if the water system is abandoned. The site would still generate a consistent revenue source through camping, mooring, and launching. Cost for construction without water is estimated at $3.1 M.

Option 3 – No water, no caretaker

Project Scope and requirements

Without a daily and consistent on site presence or if a vendor caretaker contract cannot be secured, the site would not be able to support camping, have flush restrooms, or any mechanically operated improvements. Without an onsite presence, the availability of mooring buoys and extended floats would be compromised as there would be no one to respond quickly to storms or high winds that may damage any floats or buoys that extend beyond the protected cove. All amenities would be designed to minimize and avoid maintenance. There would be a drastic limitation of landscaping, amenities subject to vandalism or theft such as picnic tables, but there would be an abundance of parking, vault toilets, and basic water access for most tides. Without a caretaker, upgraded security would be needed to prevent and deter theft and vandalism.

Project Revenue

Without an onsite caretaker, it would be unlikely that this project would generate any revenue. A presence to accept fees would not exist. The site would rely on capital funding and access area maintenance funds to stay open. As with most WDFW sites, the vault toilets would be serviced and seasonal mowing would take place. Because this site is remote and not near any other WDFW sites, there would be an increase in maintenance funding required as it would take the maintenance staff nearly a full day to visit just this site.

Project Costs

Project costs for this "typical" WDFW site would be primarily demolition as with the other two options, formal and informal parking lots, stormwater, boat ramp, and fewer floats, but still require significant mitigation. An estimated construction cost of $2.5M would be necessary.

Option 4 – No in-water permits

Project Scope and Requirements

Due to the highly sensitive nature of developing anything within the Strait of Juan de Fuca or Salish Sea, there is a risk of not receiving a DNR aquatic lease or not receiving a Corps permit. More than likely, with adequate mitigation, these in-water requirements are feasible, but may take a several years to obtain. Without permission to construct below the mean higher high tide line, the site would be limited to a vault toilet, parking, and car topper type boat launch. This is typically what WDFW refers to as a primitive site. Only boats managed by hand that can negotiate the sand could launch. The site would still be popular with kayakers, divers, bank fishermen, wildlife viewers, and picnickers. The site would need more significant security measures to protect against vandalism.

Project Revenue

There would be no revenue with this option.

Project Costs

Costs would be simplified to demolition, vault toilets, security and parking. Mitigation would be minimal. For development of upper and lower sites, with hand launch would be $663,000 in construction costs.

Other Project Costs

Regardless of the level of construction, a series of engineering, permitting, and project management costs will apply to all options. Cultural reviews, geotechnical reviews, septic decommissioning, environmental and development permits, and contracting costs will all apply. Those costs are generally a percentage of the total construction cost or a flat fee. Other project costs for the above listed options will range from $180,000 for a primitive site – $750,000 for all options.

SUMMARY

As part of the feasibility process, we were able to determine that it appears to be feasible to design and construct the amenities that the public is looking for. The infrastructure that would generate revenue to offset maintenance costs would include mooring floats, mooring buoys, and full hook-up camping sites with power and running water. These options are highly desired by the boating and fish public. Because the Snow Creek Resort has historically been a very popular fishing site for fishers from all over the Pacific Northwest, and because it is feasible, WDFW is proceeding with the request to design and permit a destination resort, meeting all of the current environmental and engineering standards. WDFW will continue to work closely with the

community to make sure that all aspects support the community and not undercut or compete against the small businesses in the area, while providing the fishing and boating public a safe and efficient boat launch. Finding and maintaining a full time seasonal caretaker is the key to being able to operate the site at the highest level. In addition to design and grading, over the next biennium, WDFW will develop a clear contract with expectations and develop relationships in the community to facilitate the design process. Although a significant capital expenditure is required, it is economically feasible to support the maintenance of the site through fees collected by an onsite caretaker or vendor. The capital costs are offset by the development of an exceptional fishing opportunity that is a destination boating and fishing opportunity in an area that is incomparable to anything else. The value of the opportunity cannot be overstated.

MOTT MACDONALD

Technical Memorandum
Snow Creek Resort – Marine Facility Feasibility Assessment

1. Introduction

The Snow Creek Recreational Site is located east of Neah Bay, WA on a 7.42-acre parcel purchased with a 1978 Land and Water Conservation Fund Boating Facilities Grant. The site was operated by a contracted vendor until the site closed in 2017. The site included a marine rail launch, access pier, moorage floats, upland campground, and restroom facilities. Washington State Department of Fish & Wildlife (WDFW) is investigating the feasibility of site improvements for the purpose of public water access for boaters (both hand carry and motorized) with a focused use on fishing, camping, and bird watching. This technical memorandum summarizes the results of a feasibility-level assessment conducted for the nearshore and marine elements for the site improvements. Upland improvement assessment work was conducted by WDFW.

2. Basis of Design

The Snow Creek boating facility improvements will be evaluated for improvements to support trailerable type recreational vessels up to 26 ft. in length. Criteria for conducting the feasibility assessment were developed and coordinated with WDFW and are documented in the Basis of Design Memorandum (See Appendix A). The criteria provide the basis for this feasibility-level assessment work.

3. Site Assessment

A site assessment was conducted to review the existing conditions at the property. The assessment consisted of a site visit on July 30, 2018 and a desktop review of available information (coastal, geologic) utilizing a combination of data, reports, and information compiled from WDFW and Mott MacDonald databases. A summary of the site assessment is outlined in Appendix C. The site assessment consisted of the following elements:

- Site Visit. Reviewed existing site conditions. The site is located within a sandy pocket beach contained with bedrock outcroppings. The existing site is not operational. A hand launch boater was using the site to launch for nearshore fishing.
- Coastal Processes. A review of coastal processes for the site was conducted based on the site visit, review of existing literature, and prior nearby Mott MacDonald project work (Mott MacDonald, 2017). The following is a brief summary of the results of the assessment:
    - Wave Exposure. Wind-waves with significant wave height of 3.5 ft. within the project area should be expected. Longer period swell should be anticipated as well.

    - Geomorphology. Seasonal variation in the sandy beach profile should be expected due to the wave exposure at the site. Special design and maintenance considerations for an at-grade boat ramp would be required.
- Geologic Conditions. The site is located in a pocket beach with extensive exposed bedrock in the nearshore and offshore areas. For purposes of this feasibility study, shallow bedrock will be assumed in all locations of the proposed marine improvements.
- Flood Hazard. The project is located within an area subject to coastal flood hazards. Close coordination between Clallam County Planning regarding FEMA flood zone elevations will be required for any nearshore upland improvements.
- Historical Use. Prior operations consisted of a marine rail launch, access pier, moorage floats, and mooring buoys. The floating structures were seasonal and anchored with mooring lines and not attached to piling due to the shallow bedrock. The shoreward end of the moorage floats were installed at a location that would ground out during lower minus tides. The bottom of the marine rail launch was estimated to be approximately -1 ft. NAVD88.
- Shoreline Master Program (SMP). Clallam County SMP requirements allow public boating facilities for this location but have specific requirements that would need to be incorporated into the site and facility design.

4. Boating Facility Improvement Features and Concepts

Scoping of boating facility improvement features for evaluation in the feasibility assessment were discussed with WDFW. The following boating facility improvements were considered for the conceptual design:

- Launching
    - Boat Ramp (elevated and at-grade)
    - Marine Rail Launch
    - Hand Carry Boat Launch
- Moorage
    - Floating Docks with Shore Connection Pier
    - Mooring Buoys

Combinations of the above features could be possible as part of the boating facility improvements. Feasibility-level plans for each of the alternatives are provided in Appendix B and include various combinations of the concepts as follows:

- Concept 1 – Access Pier & Moorage with Elevated Boat Ramp
- Concept 2 – Elevated Boat Ramp with Mooring Buoys
- Concept 3 – Access Pier & Moorage with Marine Rail Launch

4.1. Project Site Constraints

The following are a listing of project site constraints which were noted as part of our feasibility assessment which were considered in the feasibility assessment and would need to be considered in the next phase of design for a selected preferred overall facility improvement:

- Beach Slope
  - The existing beach slope is approximately 8 percent. Boat launch facility standards require a slope of 12 to 15 percent for launches and for marine rail launches the slope shall follow the grades of the beach (WAC 220-660-390), but actual slope for operations can vary depending on whether it is a power or gravity launch system. The existing beach slope is too shallow to support an on-grade boat launch, thereby requiring some type of elevated structure to achieve the required slopes.
  - The toe of the existing rail launch is -1 ft. NAVD88. There is a break in slope at that location, resulting in a flatter offshore slope. Flatter slopes create a more challenging design to extend out beyond that -1 ft. contour, which result in challenging conditions for launching larger vessels.
- Offshore Water Depths
  - As outlined in the basis of design, critical depths for moorage floats and buoys are -6 ft. NAVD88 and -11 ft. NAVD88, respectively. Those depths are offshore approximately 235 ft. and 300 ft. from MHHW line, requiring a large distance for a new pier to access floating docks or a long distance for tender boats to access mooring buoys.
- Macroalgae, Kelp and Marine Vegetation Considerations
  - Eelgrass and Kelp Beds. Kelp beds exist offshore within the zone of approximately elevation -7 ft. to -13 ft. NAVD88. All structures will be located outside of the footprint of the kelp beds. Eelgrass is assumed to not be present and would need to be verified for the zone of elevation -1 ft. down to -9 ft. NAVD88. All catenary mooring systems (for buoys or float support option) shall have mid line buoys to prevent the chain from dragging on the seabed.
- Facility Operations
  - Marine Rail Launch Operational Requirements. Operation of a marine rail launch for compliance with WISHA and OSHAA worker safety requirements for operations of the rail launch. Marine rail launch systems are typically not certified for human occupants and therefore would need to have some form of parallel dock to aid in the "tendering" of the vessel from the rail launch to an adjacent float system. The type of system is unique to the state and federal safety requirements and therefore not well defined. In some cases, marine rail launch systems with occupants are treated as an amusement park ride type facility requiring special safety equipment and procedures.
- Coastal Conditions
  - Exposure. The project site is located on exposed Strait of Juan De Fuca shoreline a short distance east of Neah Bay. Ocean swell is present within the areas a short distance offshore from the kelp beds and a large wind-wave exposure exists for the shoreline areas. Boat launch facilities typically are limited to wave heights less than 12 inches to protect the safety of users and vessels. Given the wave exposure, downtime at the site should be expected. Seasonal use should also be considered to limit the exposure to frequent higher wave events associated with the fall to spring time periods. A 2-year return period wind-wave for the project site location is estimated to be on the order of 3 to 3.5 ft. significant wave height.

- Pocket Beach. Sand beaches with exposure to long duration storm waves are susceptible to large seasonal variations to their profile. An at-grade boat ramp at this location is not recommended and therefore would require an elevated, pile-supported structure for a boat launch.

- Geology
  - The area has exposed basalt bedrock both on the shoreline and offshore areas. All support piles will likely require the installation of rock sockets or drilling work to get adequate embedment length for lateral stability.
  - Rock anchors with mooring lines could be installed for moorage floats in lieu of piles, but would require the use of divers for removal and installation. The mooring system would be required to be a sea-flex or similar type of system to not allow a catenary chain mooring system to drag on the seabed.
- Upland Area Limitations
  - Launch systems would require parking stalls for trailers at a greater number than if no launch were provided onsite. Guidance for a single lane boat launch recommends a range of 15 to 45 stalls be provided onsite.

5. Boating Facility Improvement Evaluation

The following sections provide a description of each of the boating facility improvements being considered based on the review of project site constraints, basis of design, site assessment, and feasibility assessment.

5.1. Elevated Boat Ramp

An elevated boat ramp system would be preferred at this location due to the beach conditions (geomorphic processes and slopes) versus an at-grade system (See Figure 1). An elevated ramp is a precast slab system supported by pile bents very similar to a vehicle accessible public access pier. The deck is constructed of precast concrete slabs supported by pile bents composed of concrete pile caps and steel or concrete support piles. The ramp would be a single lane with handling float grounding on the elevated concrete ramp surface.

The following are a range of requirements for an elevated boat ramp:

- A minimum 2 to 3 ft. of water depth (depending on vessel length) at the base of the ramp is recommended to have sufficient water to launch the design vessels. A toe of ramp elevation -2 ft. NAVD 88 (as shown in the concept plans) would provide use at water levels at 0 or +1 ft. NAVD88 and higher water levels. The ramp would be operational at water levels of 1 ft. above MLLW level and higher.

Handling floats are required if a pier and moorage float system are not installed. An elevated ramp without handling floats and a pier could be possible but is less efficient and requires more time for launch and retrieval.

Figure 1. Example elevated ramp system

5.2. Marine Rail Launch

A marine rail launch could be provided in lieu of a traditional trailer boat launch ramp facility. A rail launch system would consist of a hoist frame, carriage, rail launch system, and handling float (See Figure 2 for rail launch and handling float elements). Vessels on trailers would be backed under a hoist frame, lifted off the trailer, and set onto the carriage system. The carriage would then be operated down and back up the rails utilizing a powered push-pull cable loop system. The hoist frame could be similar in concept to that used at the site in the past (see Appendix B). A handling float installed adjacent to the marine rail launch would be required to "tend" the lines for the launching vessel and to provide access for the vessel operator to depart prior to carriage operations for incoming vessels and to board departing vessels. This would eliminate the need for human occupied operational design considerations for the rail launch system. The rail launch would be supported by steel pipe piles with pile caps to support the steel rails. The handling float would include steel pipe support piles with removable pile hoops for ease of seasonal float removal and installation.

Figure 2. Example marine rail launch

Operation of the marine rail launch system by trained site personnel would be required. Since the use of a marine rail launch involves a degree for risk to those involved, proper training and development of an operations procedure would be required. The purpose of this procedure is to reduce the risks to all involved to as low as is reasonably practicable by identifying the key activities and people. The following are a range of requirements for a marine rail launch system that would affect the operations and maintenance:

- An operations manual would be required for the system installed.
- Safety training for all personnel operating the system.
- At least two staff persons required to conduct lift and marine rail launch operation.
- No persons on board during lifting or launching operations.
- Owner of vessel should be present.
- Pre-lift and launch/retrieval checklist.
- Cable, winch, and lift mechanism routine inspection and maintenance would be required for the saltwater and high marine growth activity environment to ensure continuity of safe and reliable operations. Pulleys, cables, and axle bearings may require replacement on a 2- to 5-year cycle.
- A handling float would be required to meet operational requirements.

5.3. Access Pier, Gangway, and Moorage Floats

An elevated pier and gangway for public access to floating moorage was evaluated. The facility would include a shore connected fixed pier constructed of aluminum truss bridges supported on pile bents, a gangway, and moorage floats. A representative example of the

system is shown in Figure 3 which is the WA State Parks James Island moorage facility constructed in fall of 2017. Important operational and design details of this type of facility include the following:

- A steel head frame would be provided to lift and store the gangway for seasonal removal of the moorage floats.
- Float type to be determined. For the feasibility assessment it was assumed to be timber frame with floatation tubs, which are common at other boating facilities with similar coastal exposure conditions.
- Moorage floats to have internal, removable gated pile hoops to allow moorage on both sides and ease of removal.
- A gangway would be provided at a minimum 80-ft. length to meet ADA requirements.
- Moorage floats required to be waterward of the -6 ft. NAVD contour to ensure no float grounding.
- The pier and moorage float feature could be used in combination with either onsite (marine rail launch or elevated boat ramp) or offsite vessel launching (Neah Bay).

Figure 3. Example moorage float system

5.4. Mooring Buoys

A mooring buoy is an anchored float used to secure boats offshore in areas deeper than intertidal zone, as shown in Figure 4. Mooring buoys consisting of a single point mooring system (SPM) and typically include a buoy, mooring line (chain, rode), and anchor, and allow the vessel to swing around to the predominant wind, wave, and tidal current direction. Adequate spacing between mooring buoys is required to provide a safe swing radius which is determined by the largest vessel size, anchor rode length, and water depth. Vessels can safely moor on buoys at much higher wind and wave conditions than a traditional moorage dock

facility. The following are additional considerations for installation of a mooring buoy at the site:

- All buoy anchors to be located further waterward than a 7-ft. depth at extreme low water.
- The location of mooring buoys to meet WA DNR requirements will require vessel users to utilize a skiff for a distance of 400 to 600 ft. if no shore connected floating dock system is provided.
- It is highly likely that shallow bedrock exists within the project area, which will require a diver-installed rock anchor with eye bolt for the buoy line anchorage system.
- County SMP requirements have a limitation on the density of buoy fields.
- Routine inspection and maintenance of the mooring tackle is required to ensure continued safe use.

Figure 4. Example mooring buoy system

5.5. Hand Carry Vessel Launch

A non-motorized hand carry launch facility could be provided in addition to the power boat facilities. These could accommodate sea kayaking activities for wildlife watchers and fishermen. A hand carry launch could share an at-grade boat ramp or be a special purpose built low freeboard float supported by the power boat moorage docks. An example of a hand carry vessel launch float is shown in Figure 5. The following are additional considerations for a hand carry facility:

- If an elevated ramp is provided at the site, a hand carry launch float may not be needed. Additionally, if a marine rail launch is selected, it should be sited within the pocket beach

to still provide hand carry launch capacity within the remaining beach to accommodate those users.

- A hand carry float system could be a pre-manufactured system similar to that shown in Figure 5, or a custom manufactured timber or aluminum frame float system. The float system would provide 100% accessibility for all tide level use. All hand carry floats would need to be low freeboard (6 to 9 inches).

Figure 5. Hand carry launch system (Port of Anacortes Cap Sante)

6. Estimated Construction Costs

Construction costs were developed for each boating facility feature based on the feasibility-level engineering assessment and the plans shown in Appendix B. A detailed summary of the costs for each feature are provided in Appendix D. The following summarizes the range of costs for each feature and the associated assumptions and limitations for the cost estimates:

- Estimated Construction Cost
  - Pier, Gangway, Floats – $1,250,000 to $1,500,000
  - Elevated Concrete Ramp – $1,700,000 to $2,100,000
  - Elevated Marine Rail Launch – $950,000 to $1,200,000
  - Mooring Buoys – $65,000 to $90,000
  - Hand Carry Launch Floats – $170,000 to $215,000

- Assumptions and Limitations
  - The intent of providing estimated costs is to provide an order of magnitude estimate for developing a master scheme for waterfront boater access improvements for the property.
  - Each of the costs are for the individual feature costs and not combined costs for the concepts shown in Appendix B.
  - Costs include an assumed 18% of subtotal to cover mobilization and onsite incidentals for surveying, environmental protection, and other miscellaneous minor project costs.
  - Costs provided are based on experience and our assessment level description of scope of construction work based on a site visit and prior experience with similar improvements. Additional engineering analysis and design would be needed to better refine the scope of construction and materials for each item, and therefore the corresponding estimated cost.
  - Costs assumed construction work is hired out and not self-performed by WDFW.
  - Cost information is variable depending on the economy and local contracting industry conditions.
  - Costs provided assume local sales tax and a 25% contingency.
  - Costs for engineering and regulatory permit assistance are not included.

7. Conclusions

The following summarizes our key conclusions based on the results of our feasibility-level analysis:

- General
  - A marine facility at this location should be limited to a seasonal, summer fishing recreational use period. This is similar to facilities operated by WA State Parks in the San Juan Islands. Gangways are hoisted, and floats are removed and relocated to a secure, upland location for the non-recreational season.
- Marine Rail Launch
  - A marine rail launch requires the installation of handling floats which ground out with the water level but extend out to the end of the rail launch.
  - A marine rail launch is a custom design and operational system requiring continuous safety training and maintenance that is not required of the other facility features being evaluated. A marine rail launch will require substantially more labor to operate and annual cost to maintain as compared to the elevated boat ramp.
  - Installation of piles will require specialty drilling equipment and correspondingly will be approximately twice the cost of traditionally driven piles to support the structures.
  - Limit the size of the marine rail launch to a smaller size vessel (21 ft.) than for an elevated boat ramp (26 ft.).
- Launch Facilities
  - Downtime for the boat ramp and marine rail launch is estimated to be approximately 30% of time as a result of low tides which occur below the operational limit of the ramp. Reducing the downtime would cost incrementally more on a per foot basis to extend further out due to the site conditions.

8. Next Steps

The following are key elements that would need to be considered for implementation of the alternatives that were evaluated in this feasibility assessment:

- Geotechnical Investigation. Conduct a site reconnaissance of the intertidal and nearshore uplands to aid in the design of the structures. This should include a geotechnical boring in the nearshore zone to determine the type and strength of the rock, as well as probing to determine depth to bedrock along the alignment of the structure.
- Wave Analysis. Conduct a wave analysis for the recreational season time period to develop design criteria for the floats.
- Kelp/Macroalgae Survey. Conduct a survey of the area and add to the survey base map to aid in the final layout and design for site planning and permitting.

9. References

Mott MacDonald. March 10, 2017. “Technical Memorandum: Neah Bay Proposed Placement Site Analysis”.

APPENDIX A

Basis of Design Memorandum

MOTT MACDONALD

Basis of Design
Snow Creek Resort – Marine Facility Feasibility Assessment

Mott MacDonald has prepared a basis of design for the marine facility improvements at the Snow Creek Recreational site feasibility assessment. This basis of design does not cover any upland and landside improvements.

1. Public Use

The intended public use for this facility is water access for boaters (both hand carry and motorized) with a focused use on fishing. The beach is classified as a small, sandy pocket beach with rock outcroppings on both the west and east edge. There is no nearby connection to an adjacent sandy beach.

Salmon and bottom fish areas are located immediately adjacent to the facility attracting hand carry and smaller trailerable boats. Fishing is also available offshore in the Strait of Juan De Fuca and Pacific Ocean attracting a combination of medium to larger size trailerable Boats. The Neah Bay marina has launching and moorage to accommodate larger size vessels.

2. Operations

The facility is intended to have staff or a site manager while operational. The marine facility is intended to be seasonal from May 1 to September 30. Floating structures would be removed during the non-recreational period for protection from winter storms. Floats are assumed to be stored nearby in the uplands. Access gangways would be provided with a frame for lifting and storage during off-season time periods when float is removed.

3. Property Ownership

The upland parcel is owned and managed by WDFW. The upland parcel extends out into the tidelands a short distance. Waterward of the WDFW parcel is Washington Department of Natural Resources tidelands. A tideland lease would be required for the marine facility that extends beyond the WDFW parcel.

4. Flood Zone

Based on review of the FEMA (2001) Flood Insurance Study for Clallam County, the nearshore area of the project site is located in a FEMA designated V-zone, indicating that it is an area within the 100-yr coastal flood with velocity (wave action) but does not have a determined base flood elevation. The upland area of the project site is located in the FEMA designated A-zone, indicating that it is an area within the 100-yr flood but does not have a determined base flood elevation. Although the FEMA (2001) Flood Insurance Study for

Clallam County does not provide based flood elevations for the project site, it does identify +8.1 feet NGVD29 (11.8 ft NAVD88) as the 100-year still water elevation for Neah Bay (approx. 3 miles away). The 100-year flood level for the upland area of the Snow Creek project site can be assumed to have a similar value as Neah Bay. Further investigation will be needed prior to advancing the design in the next phase.

5. Shoreline Master Program (Clallam County)

The project site is regulated by the Clallam County Shoreline Master Program. The following requirements from the SMP were outlined as applicable to the concepts being considered for the Snow Creek redevelopment:

- Site Designation: Marine Waterfront SED
- Boating Facilities & Moorage (Section 4.2)
  - Permitted use.
  - Avoid the need for future maintenance dredging.
  - No float grounding on tidelands.
  - Minimize shading of aquatic habitats.
  - No impact to sediment transport processes.
  - Located to minimize conflict with hazards and obstructions.
- Mooring Buoys
  - Not greater than 4 buoys/acre density for buoy field.
  - No closer than 100 ft. from other piers, floats or buoys.
- Boat Launches.
  - Provide adequate restoom and sewage and waste disposal.
  - Provide ample parking spaces for trailers.

6. Coastal Conditions

The project site is located on the south shore of the Strait of Juan de Fuca (Straight) east of Neah Bay. A rock reef and pinnacle feature (Seal & Sail Rocks) is located offshore to the northwest which provides some sheltering of the shoreline from northwest waves. The Straight exhibit a combination of deep water ocean swell and locally generated wind waves. Offshore from the project site in deeper water (beyond -20 ft.) and beyond the rock reef, some long period waves exist. The long period waves are not as prevalent in the nearshore zone. The shoreline of the project site is exposed to wind waves with relatively large fetch distances to the northeast and northwest. The estimated peak wave (for the recreational time period) is 3 ft. for the area at the end of the old floating dock system.

Clallam County Western Strait Sub-Region Nearshore Assessment characterized the site as old marine sediments with alluvial deposits, nearby kelp beds and adjacent snow creek is severely impaired. No appreciable sediment drift as it is classified as a pocket beach. The beach accumulates sediment derived from fluvial sources (nearby snow creek).

Tidal Elevations for the project site (based on Neah Bay tide gauge):

- Extreme High Water = +11.62 ft. NAVD88

- Mean Higher High Water = +7.12 ft. NAVD88
- Mean Lower Low Water = -0.68 ft. NAVD88
- Extreme Low Water = -4.62 ft. NAVD88

7. Geotechnical Conditions

A site specific geotechnical investigation has not yet been conducted. Based on a review of the site conditions and existing literature, the following was developed for use in conducting the pre-design work:

- Basalt bedrock (marine basal) present at site in nearshore and offshore.
- Shallow bedrock should be expected at all locations of the proposed marine facility improvements. Depth of coverage by alluvial sand/gravel material is likely 0 ft. to 10 ft.
- Prior access pier construction installed pile without embedment into bedrock. Lateral bracing system was used. Floats were anchored with chain; no piles used to due presence of bedrock.
- Alluvium cover is too shallow to provide for sufficient driven pile embedment. Any structures requiring pile support will require socketing (drilled) of the piles into the bedrock a minimum distance of 10 ft. of competent rock.

8. Marine Habitat, Kelp Beds & Seagrasses

An onsite habitat assessment has not yet been completed at the time of the feasibility assessment work. Kelp beds do exist offshore from the facility and were delineated from aerial photographs. The new facility improvements shall have no impact to the kelp beds.

9. Vessel Type, Size, Number

The following type, size and use are assumed for the design vessels as a basis for the layout and concept design of the marine facilities.

- Type: Trailerable type fishing style vessels.
- Number: the number of vessels to be accommodated depends on the type of facility being provide as follows:
  - Floating Docks: 12 to 15 vessels; for sizing utilize a mix represented by average vessel size (average of medium and large class ~22 ft.).
  - Mooring Buoys: 10 to 12 vessels; assume large class for geometric layouts.
- Size: Depends on user and destination. The following two vessel classes will be evaluated:
  - Large: 26 ft. Deep-vee hull fishing vessel.
    - Century 2600 Walkaround: LOA 26 ft., Weight: 6,500 lbs., Draft 15”.
  - Medium: 21 ft. and smaller partial vee hull and flat bottom hull type fishing boats.
    - North River Seahawk Outboard: LOA 20’8”, Weight 2,400 lbs., Draft 15”.

10. Vessel Moorage

Onsite moorage is desired for users of the upland overnight facilities. Vessel moorage would consist of the following components.

- Mooring Buoys. Single point mooring buoy for offshore moorage.
  - Type: Single Point Mooring System.
  - Number: Accommodate 10 to 12 large size vessels.
  - Location: Buoys shall be located offshore in depth sufficient to prevent vessel grounding. WA DNR guidelines require mooring buoy anchors to be set in water deeper than 7 ft. at Extreme Low Tide or for this site approximately -11.5 ft. MLLW.
  - Access: Dingy or kayak either to dock or beach.
- Moorage Floats. Floating docks constructed of timber or steel framing with grated decking.
  - ADA Compliant.
  - Width: Minimum 8 ft. width.
  - Use: Seasonal, removed during designated non-recreational period. Capable to be easily removed and towed to nearby location such as Neah Bay Marina or stored in the nearby uplands.
  - Access: Access to moorage from upland facilities to moorage from Fixed Pier and ADA compliant 80 ft. length aluminum truss gangway.

11. Boat Launch Facility

A boat ramp is desired at the site to accommodate a combination of hand carry and trailerable boats. The following criteria will be utilized for the feasibility design work:

- Boat Launch Alternative.
  - Lanes: Single Lane; 18 ft. minimum width.
  - Handling Float: Minimum 6 ft. width, desirable to be 8 ft. width.
  - Slope: 12 to 15%. Larger vessels desirable to be on steeper end of the range.
  - Material Type: Concrete ramp; combination of precast planks and cast-in-place.
- Marine Rail Launch Alternative.
  - Vessel Size: Medium or small vessels. Less than 2,500 lbs.
  - Minimum Water Depth for Launching (slope dependent): 2 ft.
  - Wind Condition Limit: Less than 12 knots.
  - Wave Condition Limit: Less than 1 ft. wave height.
  - Profile: Needs to be above the upper limit of beach profile seasonal adjustment and follow the slope of the beach.

12. Piers & Gangways

A fixed access pier from shore to the proposed floating moorage would be required to provide direct ADA pedestrian access. The following criteria will be used for the pre-design work:

- Pier. Truss type aluminum gangway

    - Width: 5 ft. minimum clear inside.
    - Surface: 100% grated.
- Gangway. Similar construction as pier with swing link at the top connection.
    - Width: 4 ft. minimum clear inside.
    - Length: Minimum 80 ft. for ADA compliance.
    - Surface: 100% grated.

13. Utilities

The following is assumed utilities for the new marine facility:

- Power, Water, Sewer. No new utilities are planned for the pier or moorage float. Power will be onsite for use on marine rail launch or other upland facilities.
- Lighting. Lighting may be provided on the access pier and gangway.

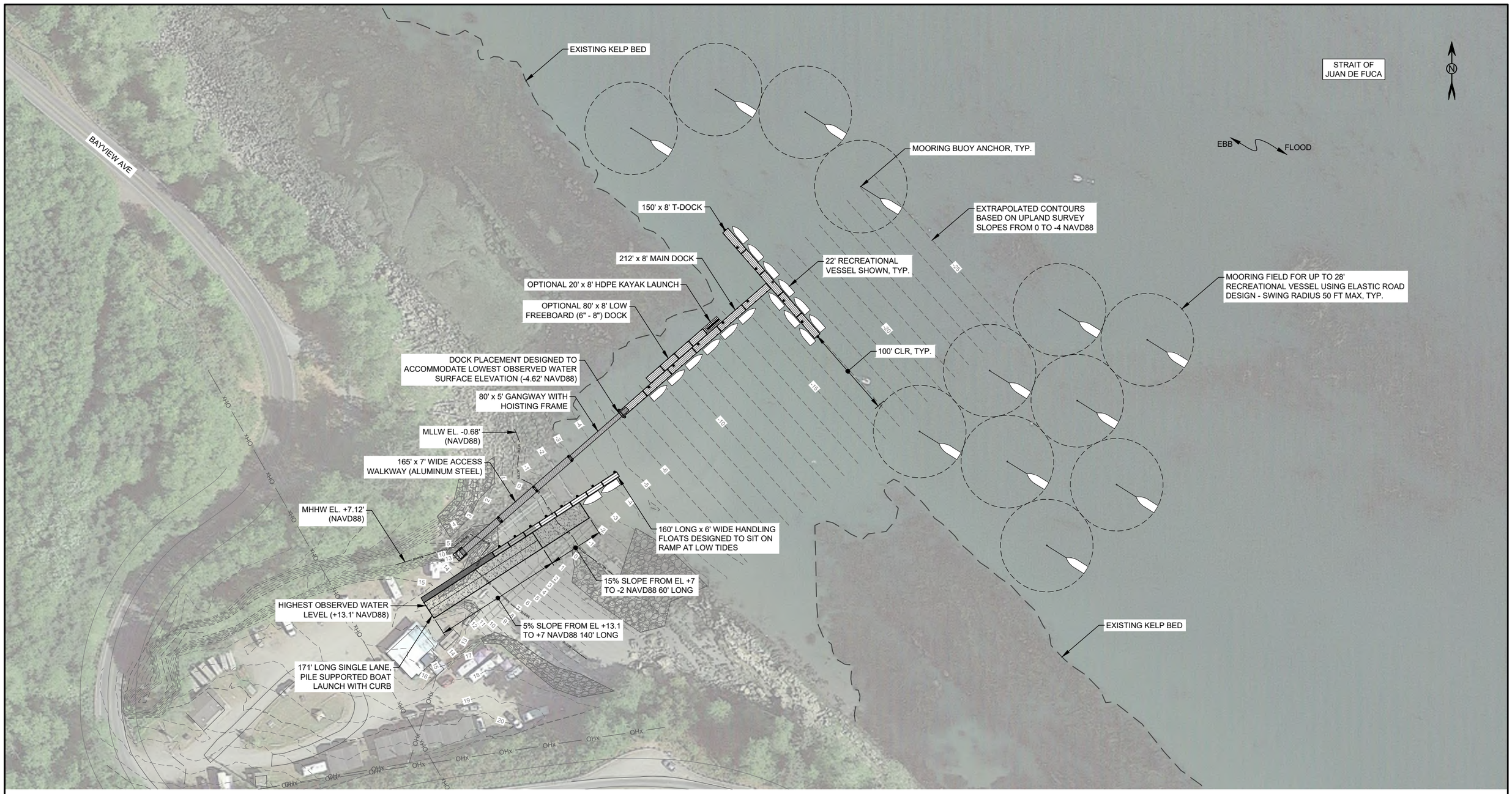
14. Design Standards

The following design standards and guidelines will apply to the feasibility evaluation of boating facility improvements:

- Oregon Marine Board – Design Guidelines for Recreational Boating Facilities, 3rd Edition
- States Organization for Boating Access (SOBA)
- American Society for Civil Engineers Planning & Design of Small Craft Harbors (ASCE)
- International Building Code Requirements (IBC)
- Americans with Disability Act (ADA) Requirements/ ADA Accessibility Guidelines (ADAAG) for boating facilities
- WAC Chapter 220-660; Hydraulic Code Rules

APPENDIX B

Feasibility-Level Plans



CONCEPT 1 - ACCESS PIER WITH ELEVATED BOAT RAMP

0 50 100

SCALE: 1" = 50'

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Client

Rev	Date	Drawn	Description	Ch'k'd	App'd
	8/31/18	TM	CONCEPTUAL DESIGN		

Project Number	B/O	Total
385629	1	3

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at ANSI D	Status		Rev	Security	
Drawing Number					

Title

SNOW CREEK BOATING FACILITY FEASIBILITY ASSESSEMENT

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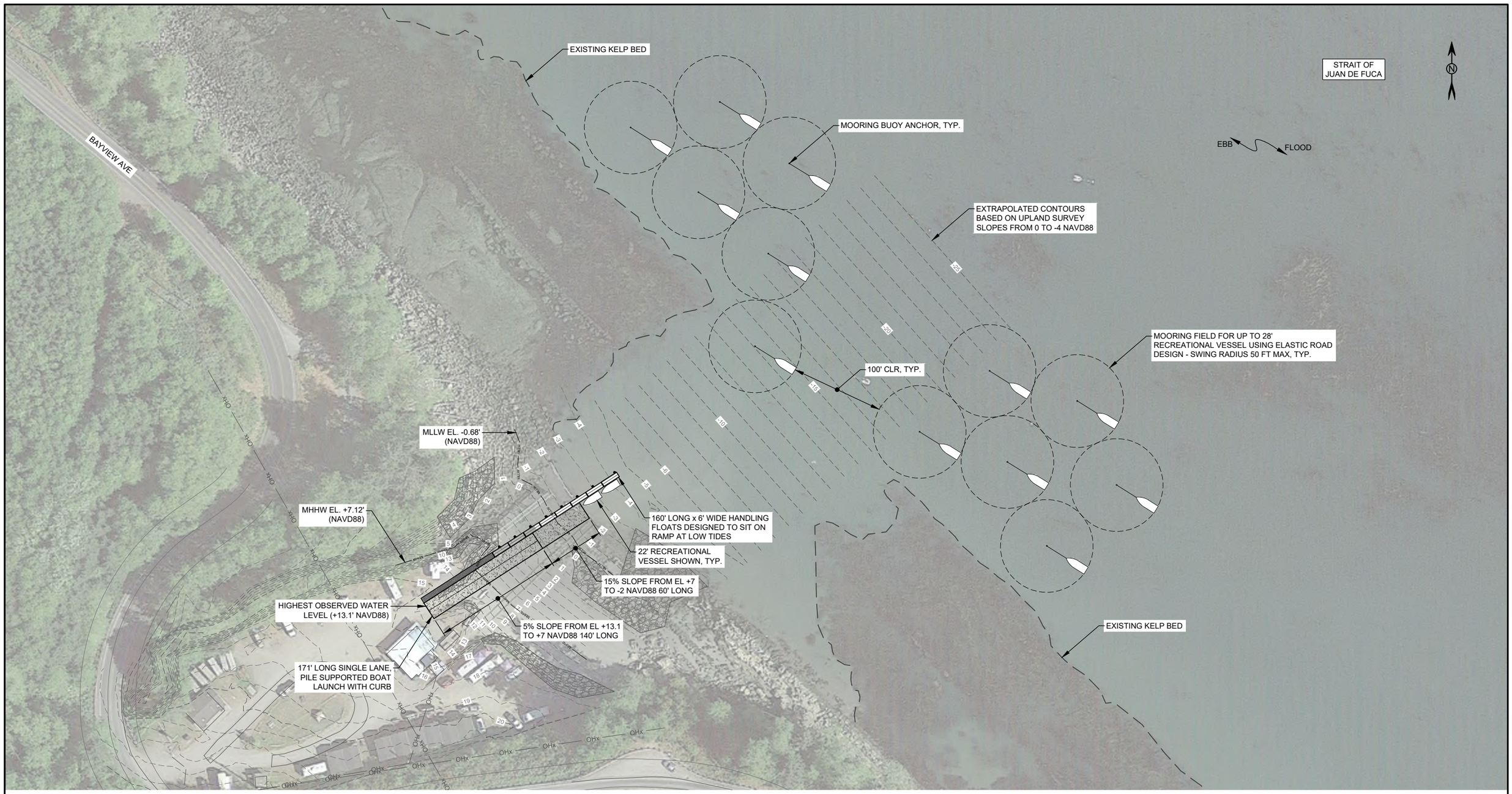

CONCEPT 2 - ELEVATED RAMP WITH MOORING BUOYS

0 50 100

SCALE: 1" = 50'

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Client

Rev	Date	Drawn	Description	Ch'k'd	App'd
	8/31/18	TM	CONCEPTUAL DESIGN		

Project Number	B/O	Total
385629	2	3

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at ANSI D	Status		Rev	Security	

Drawing Number

Title: SNOW CREEK BOATING FACILITY FEASIBILITY ASSESSEMENT

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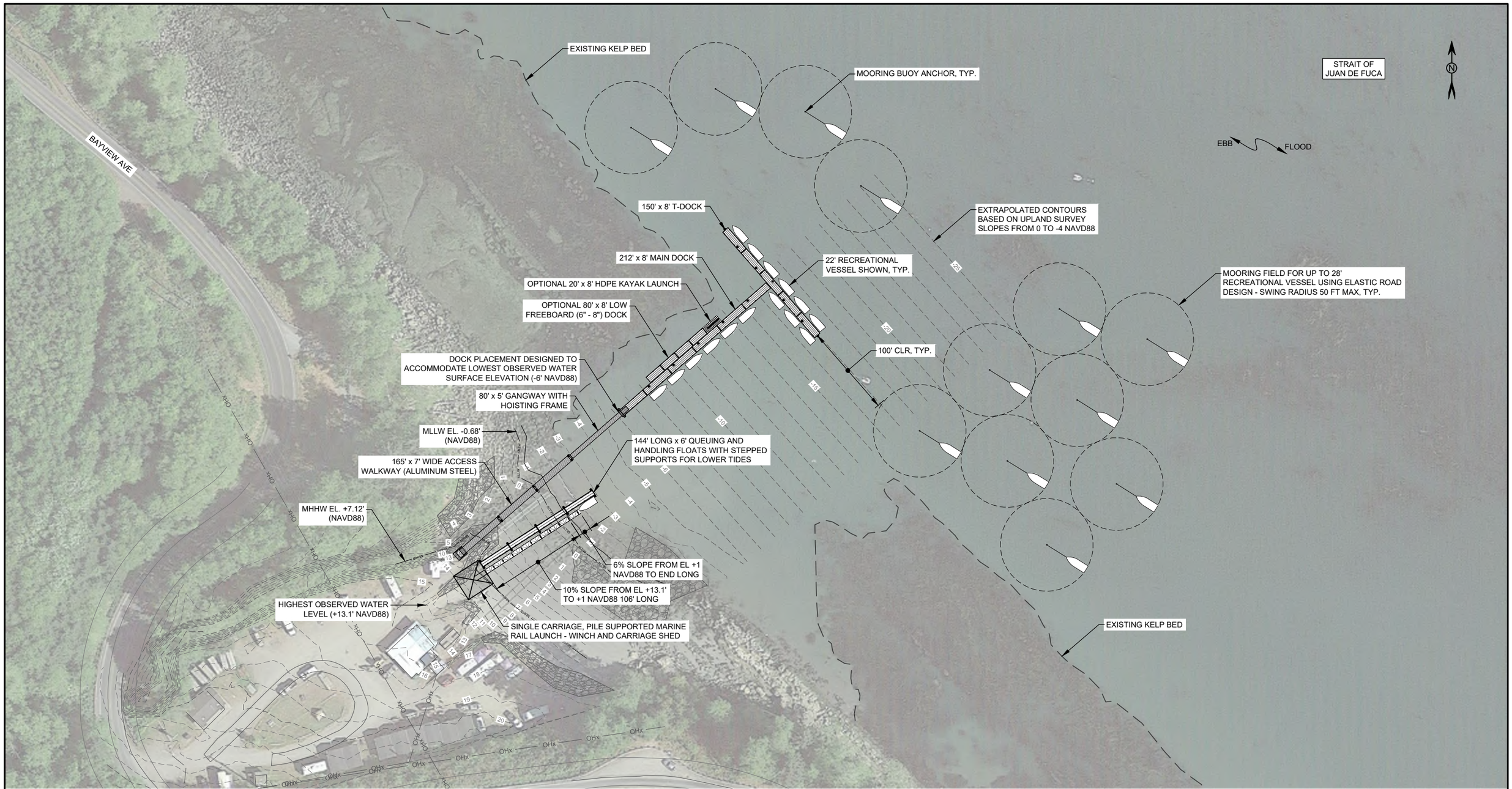

CONCEPT 3 - ACCESS PIER WITH MARINE RAIL LAUNCH

0 50 100

SCALE: 1" = 50'

DRAFT

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Client

Rev	Date	Drawn	Description	Ch'k'd	App'd
	8/31/18	TM	CONCEPTUAL DESIGN		

Project Number	B/O	Total
385629	3	3

Designed			Eng check		
Drawn			Coordination		
Dwg check			Approved		
Scale at ANSI D	Status		Rev	Security	
Drawing Number					

Title: SNOW CREEK BOATING FACILITY FEASIBILITY ASSESSEMENT

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APPENDIX C

Summary of Site Assessment

MOTT MACDONALD

WDFW Snow Creek Boating Facility

Site Assessment – Appendix C
8/31/18

WDFW

Snow Creek Project Area

- 3 miles East of Neah Bay
- On shoreline of Strait of Juan de Fuca

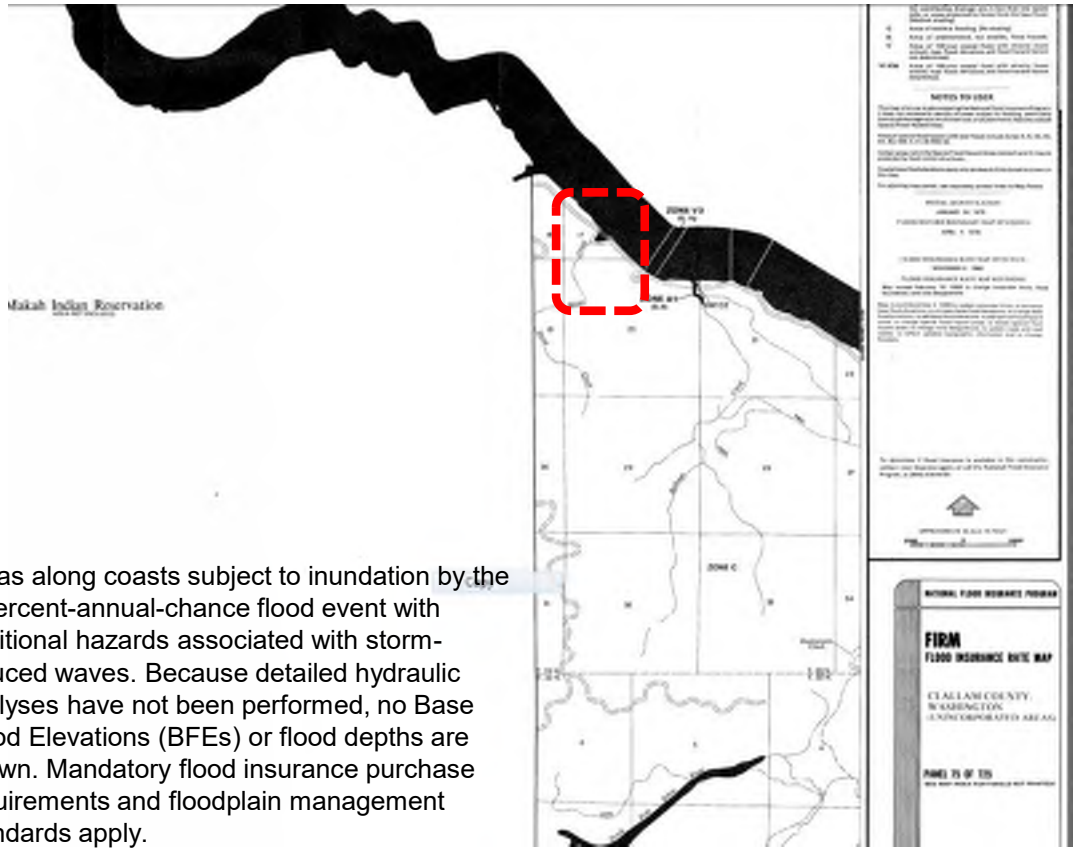
Snow Creek Project Area

- Historically used as boating access site run by private operator under contract of WDFW
- Seasonal Use
- Onsite trailer storage, camping, and cabins
- Use ended approximately 5 years ago

Snow Creek – Clallam County FEMA Flood Map

Circa 1978; revised 1983

- Flood Elevation = +8.1’ NGVD
- V3 = +16’ NGVD, not sure if it applies
- Project site is exposed to coastal flooding but hasn’t been mapped
- Likely somewhere between the 8.1’ and 16.1’ level
- Nearby creek is A1 in the creek estuary



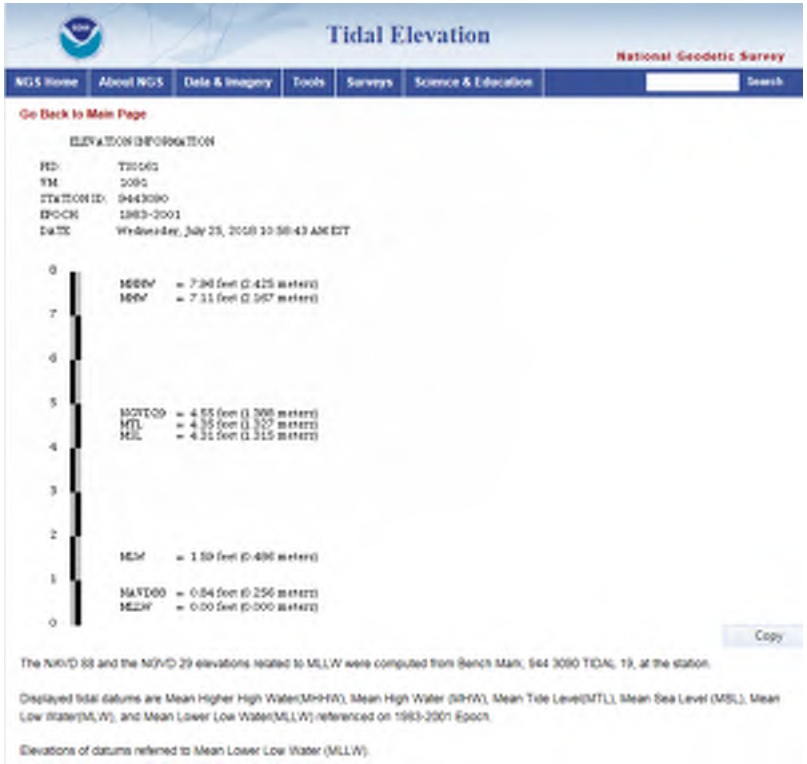
Areas along coasts subject to inundation by the 1-percent-annual-chance flood event with additional hazards associated with storm-induced waves. Because detailed hydraulic analyses have not been performed, no Base Flood Elevations (BFEs) or flood depths are shown. Mandatory flood insurance purchase requirements and floodplain management standards apply.

Snow Creek Water Levels

Source: NOAA Neah Bay

Snow Creek Tidal Datums

Source: NOAA Neah Bay



T I D A L D A T U M S

Tidal datums at NEAH BAY, STRAIT OF JUAN DE FUCA based on:

LENGTH OF SERIES:	19 YEARS
TIME PERIOD:	January 1983 - December 2001
TIDAL EPOCH:	1983-2001
CONTROL TIDE STATION:	

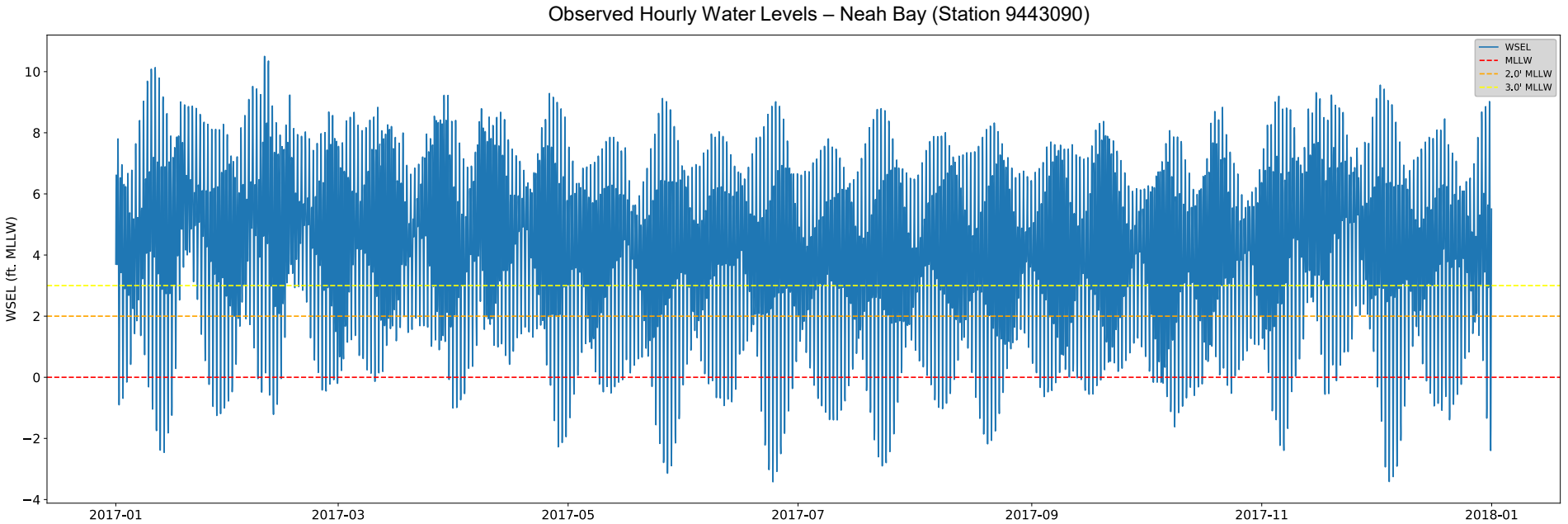
Elevations of tidal datums referred to Mean Lower Low Water (MLLW), in METERS:

HIGHEST OBSERVED WATER LEVEL (11/30/1951)		=	3.749
MEAN HIGHER HIGH WATER	MHHW	=	2.425
MEAN HIGH WATER	MHW	=	2.167
MEAN TIDE LEVEL	MTL	=	1.327
MEAN SEA LEVEL	MSL	=	1.315
MEAN LOW WATER	MLW	=	0.486
North American Vertical Datum	NAVD88	=	0.256
MEAN LOWER LOW WATER	MLLW	=	0.000
LOWEST OBSERVED WATER LEVEL (11/26/2007)		=	-1.202

North American Vertical Datum (NAVD88)

Snow Creek Water Levels

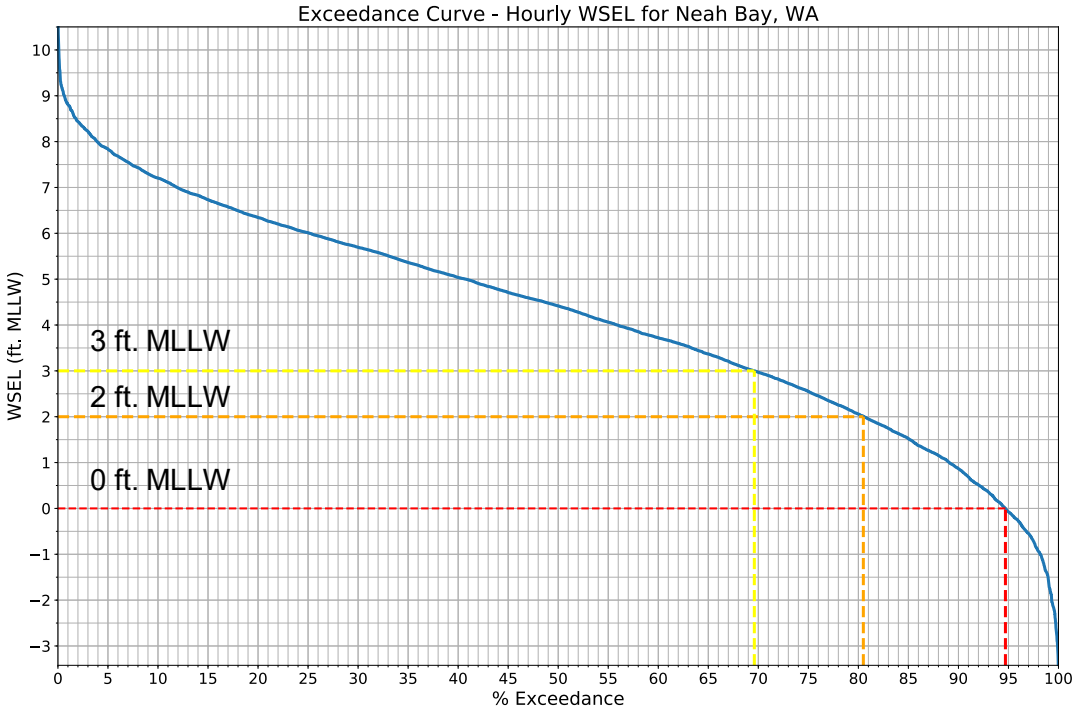
Neah Bay Observed WSEL Calendar Year 2017



Snow Creek Water Levels

Neah Bay – Exceedance Curve (2017)

Water Level (ft. MLLW)	% Exceedance
0.0	94.7
2.0	80.5
3.0	69.6



Wave Climate – 2 Year Return Period

2005-2016, Neah Bay

- Estimated wave heights assuming deep water, as wave growth occurs mainly in channel
- Checked for wave breaking assuming Hb/d = 0.78 at the end of existing float

Return Period	Wind speed (knots)	Wind direction (degrees)	H_s (ft.)	T_p (s)
2 year	24.5	0	3.0	3.1
2 year	28	45	3.7	3.4

*Note: Long period swell not evaluated

Snow Creek – Historical Photographs

Offshore View

- Land-based access pier
- Gangway
- Moorage Floats
- No pile supports
- Marine Rail Launch
- Sandy Beach

Snow Creek – Historical Photographs

Inshore View

- Land-based access pier
- Gangway
- Marine Rail Launch
- Office Building
- RV Parking
- Beach
- Shore Protection

Snow Creek – Historical Photographs

Marine Rail Launch

- Marine Rail Launch
- Sandy Beach
- No pile supports on floats
- Braced piles with minimal embedment

Snow Creek – Historical Photographs

Marine Rail Launch Vessel Loading System

- Lift system required to remove and place vessels to/from trailer to carriage on the rail launch system

Snow Creek – Historical Photographs

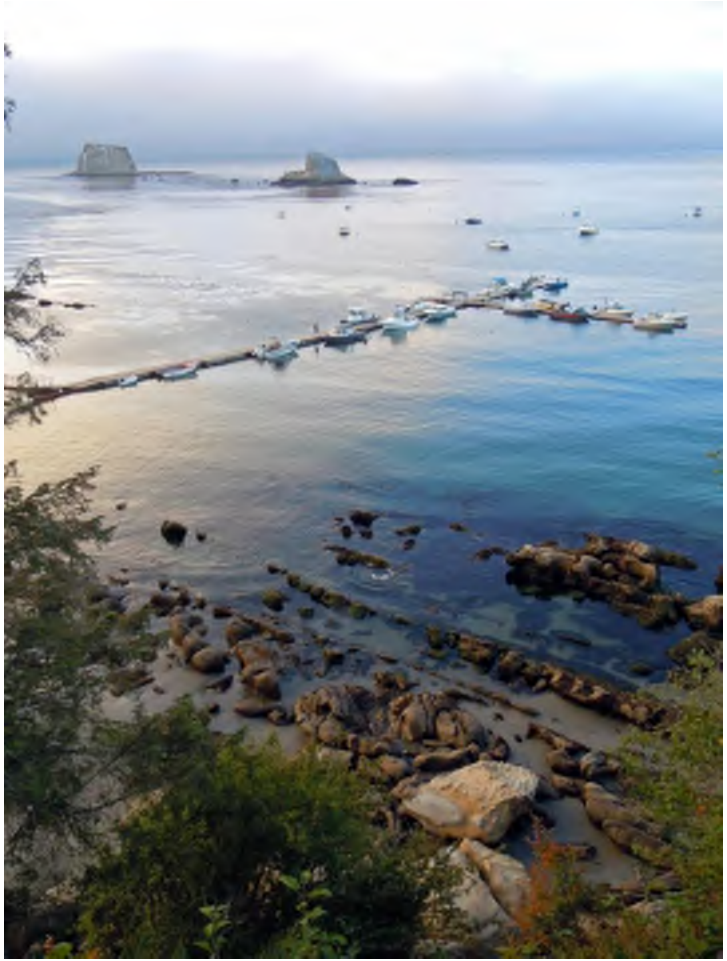
Marine Rail Launch

- Bunk on Rail System
- Vessel Occupant Required during launching
- Tide Dependent Use
- Toe of Rail Launch: -2’ NAVD88

Snow Creek – Historical Photographs

Moorage Area

- Floats – Seasonal, no piles
- Shoreward end of floats
  - Bottom elevation -3.5’ NAVD88
  - Floats grounded at tides less than this level
- Seaward end of floats
  - Bottom elevation -21’ NAVD88



Snow Creek – Historical Photographs

East Shoreline

Snow Creek

Outlet Channel

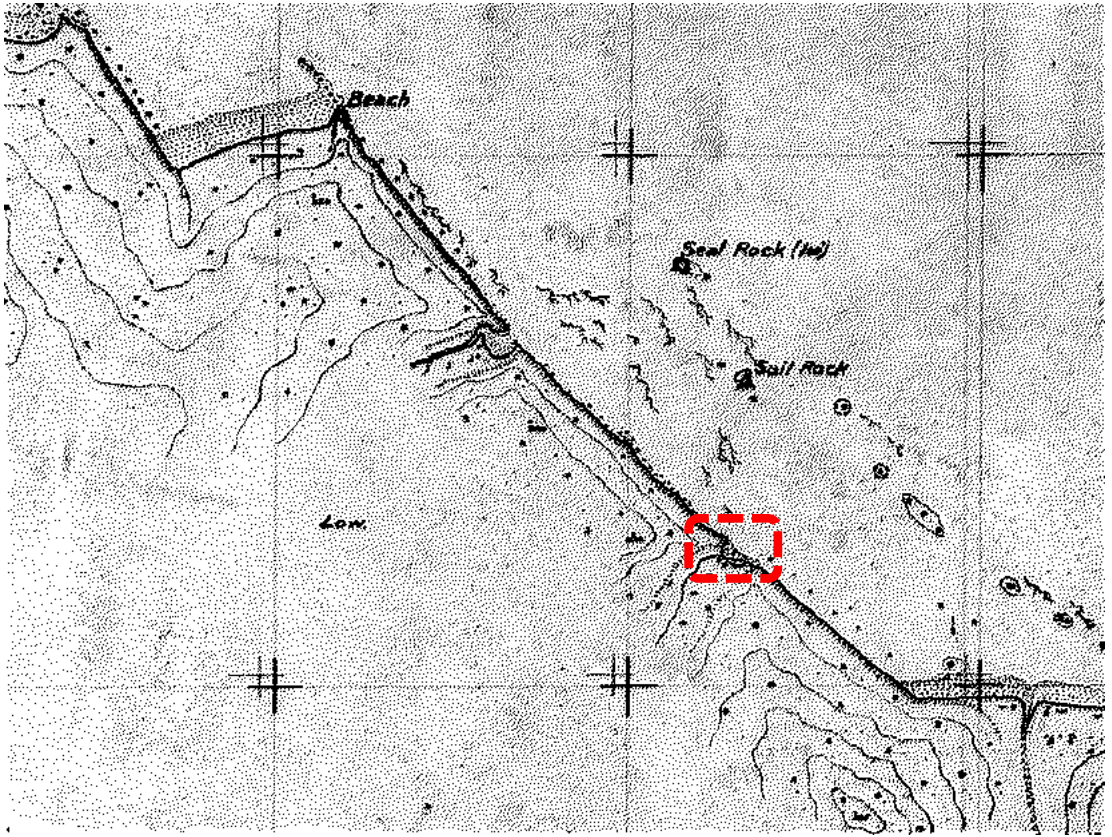
- Channelized Stream
- Likely delivers sediment to beach during high flows

Snow Creek – Current Condition

7/26/18

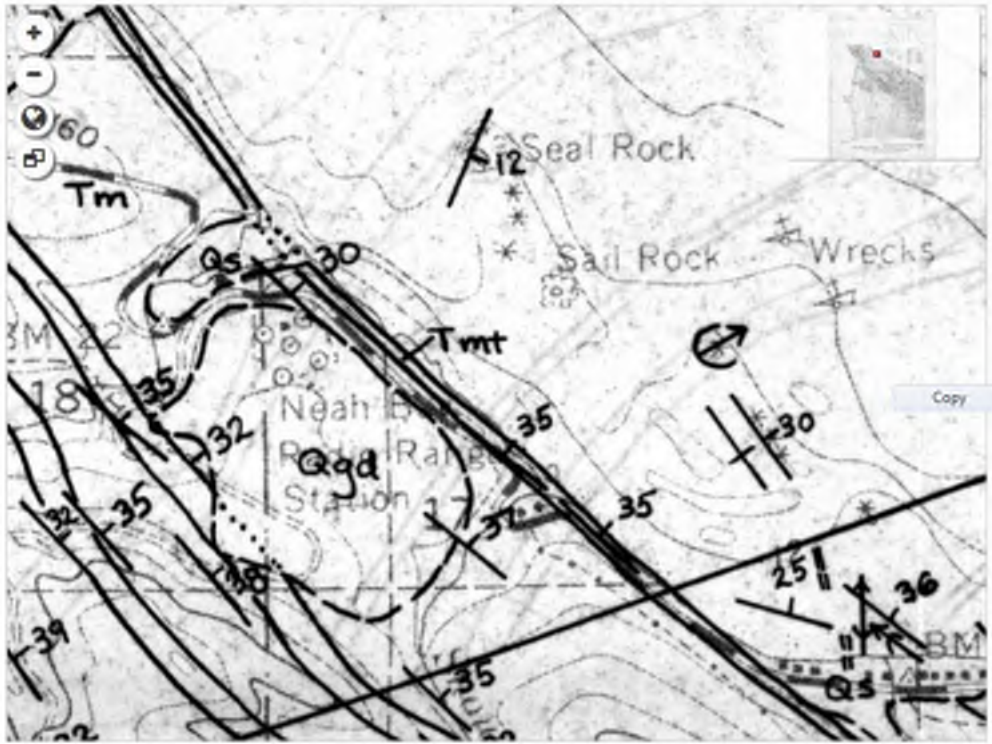
Snow Creek – T-Sheet 2908

- 1908-1909
- Creek outlet into pocket beach
- Creek shifted to west edge of pocket beach and channelized



Snow Creek - Geology

- USGS Geology Map (shown)
- Clallam County WRIA19 assessment
- Basalt Bedrock present at site in nearshore and offshore
- Varying layer thickness of alluvium over bedrock
- Shallow bedrock should be expected at this site



A.4 Geology

Consolidated strata underlying WRIA 19 consist primarily of tertiary (Eocene through Miocene) marine sediments and basalt. In addition, a relatively thin veneer of quaternary glacial deposits and alluvium up to 200 feet thick covers bedrock in 21 percent of WRIA 19 (Figure A-3). Bedrock that underlies the WRIA primarily consists of cemented marine sedimentary deposits of shale (or siltstone and mudstone), sandstone, and conglomerate, for which the sands and gravels represent turbidite deposition from submarine fans. The basalt includes massive flows, pillow basalts, and volcaniclastic sediments.

The marine sediments and basalt have been lithified, uplifted, and rotated such that the original subhorizontal bedding planes of the sediments have been tilted to the north-northeast with a dip of roughly 30 degrees (ranging mostly between 20 degrees and 40 degrees) and a strike (trend) that generally parallels the coastline oriented from N60°W to N90°W.

Snow Creek – Geomorphologic Assessment

- Source: Clallam County Wester Strait Subregion Nearshore Assessment
- Geology: Old marine sediments with alluvial deposits; rock and broken rock present
- Habitat: Nearby kelp beds
- Snow Creek: Onsite creek outlet is tight lined adjacent to old pier, outlet delta “Severely Impaired.” Sand present in substrate
- Nearshore Sediment Drift: No Appreciable Drift – Pocket Beach
- Pockets such as Snow Creek tend to accumulate sediment derived from fluvial sources and very steep adjacent rocky shorelines

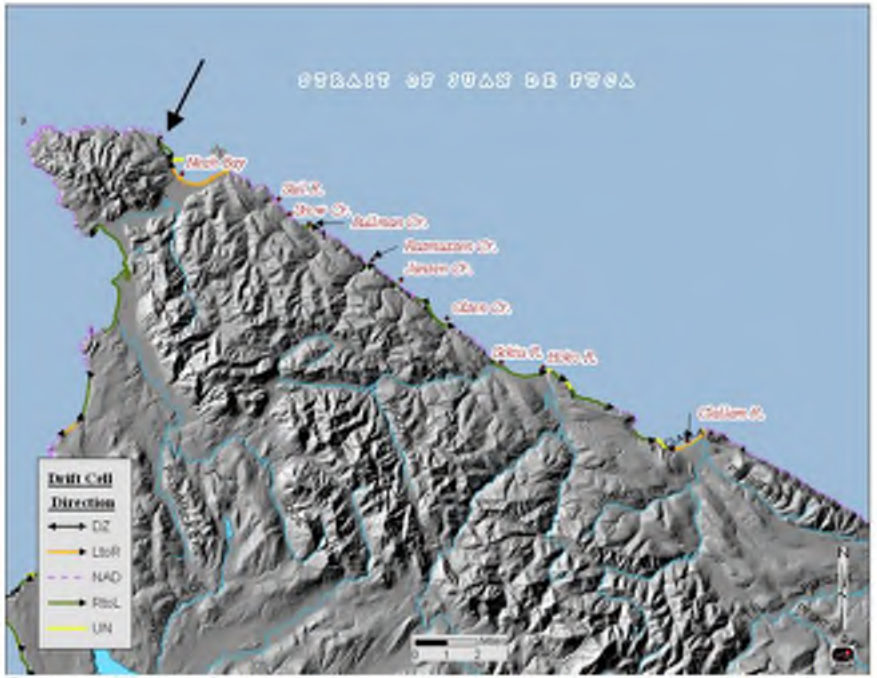


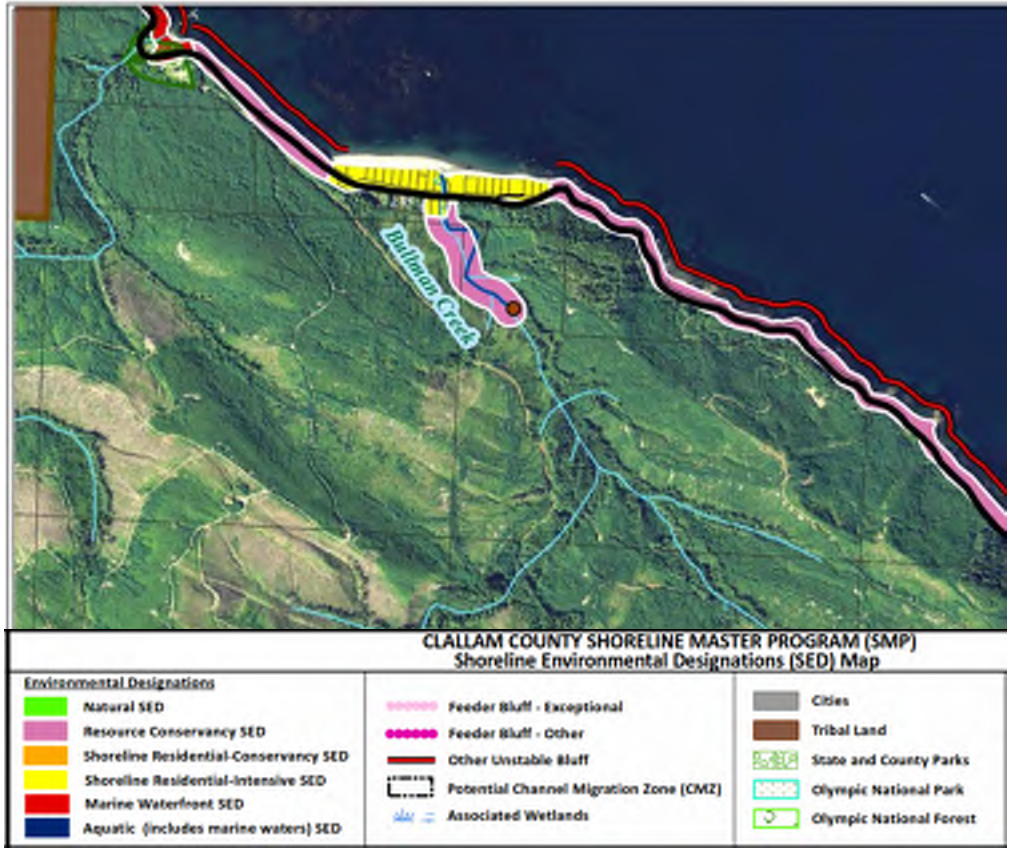
Figure 1. Western Strait sub-region, including habitat complexes and net sediment drift (WDOE 2002, based on Bubnick 1986). The arrow shown just west of Neah Bay points to the western boundary of the sub-region and study area at Koitlah Point. Legend items DZ = “divergence zone”, NAD = “no appreciable drift”, UN = “unknown”, LtoR = “left-to-right”, and RtoL = “right-to-left” (from the perspective of someone in a boat and facing the land).

Snow Creek – Geomorphologic Assessment

- Pocket Beach, sand
- North facing sandy beaches are susceptible to seasonal beach profile changes
- Sand will shift downslope and back upslope, thereby creating challenges for any on grade structures

Snow Creek – Clallam County Shoreline Master Program

- Marine Waterfront SED Designation
- Unstable Bluff
- Resource Conservancy to the east



APPENDIX D

Estimated Construction Cost Summary Sheet

MOTT MACDONALD

WDFW Snow Creek Feasibility Assessment
Cost Estimate Worksheet

Location: **Neah Bay**
Project: **Snow Creek Boater Access Facility**

Prepared By: **SC/JL/SP**
Date: **09/06/18**

Item #	Work Item Description	Quantity/Units	Unit	Unit Cost	Item Cost	Totals
Access Pier, Gangway and Floats						
1	Furnish and Install Transfer Ramp & Upland Footing (15'x7')	1	EA	$16,000	$16,000	
2	Furnish and Install Aluminum Walkways (50x7)	3	EA	$52,500	$157,500	
3	Furnish and Install 80'x5' Aluminum Gangway	1	EA	$60,000	$60,000	
4	Furnish 8'x36' Floats	11	EA	$28,800	$316,800	
5	Transport and Install Supplied Floats	11	EA	$5,000	$55,000	
6	Furnish and Install 16" Steel Piling (floats)	10	EA	$11,000	$110,000	
7	Furnish and Install 16" Steel Piling (walkways)	6	EA	$11,000	$66,000	
8	Rock Sockets for Piles	18	EA	$9,000	$162,000	
9	Furnish and Install Steel Pile Caps for walkways	3	EA	$3,500	$10,500	
10	Furnish and Install Gangway Hoist Head Frame	1	EA	$5,000	$5,000	
11	Furnish and Install Steel Piling (Gangway Hoist)	2	EA	$11,000	$22,000	
12	General Costs (18%)	1	LS	$147,120	$147,120	
					Subtotal	**1,127,920**
					Total incl. 25% Contingency and Sales Tax	**1,468,552**
Elevated Boat Ramp and Boarding Floats						
1	Boarding Floats Anchor Piles - 16" - Furnished & Installed	8	EA	$11,000	$88,000	
2	Rock Socket for Boarding Float Piles	8	EA	$9,000	$72,000	
3	Boat Ramp Piles (20")	30	EA	$15,000	$450,000	
4	Rock Socket for Boat Ramp Piles	30	EA	$9,000	$270,000	
5	Boat Ramp Piles Caps	15	EA	$3,000	$45,000	
6	Furnish and Install Boat Ramp Concrete Deck Planks	4446	SF	$65	$288,990	
7	Furnish 6'x35' Floats	8	EA	$21,000	$168,000	
8	Transport and Install Supplied Floats	8	EA	$5,000	$40,000	
9	CIP Conrete Curb & Topping Slab	1	LS	$30,000	$30,000	
10	General Costs (18%)	1	LS	$213,299	$213,299	
					Subtotal	**1,665,289**
					Total Incl. 25% Contingency and Sales Tax	**2,168,206**
Marine Rail Launch and Boarding Floats						
1	Boarding Floats Anchor Piles - 16" - Furnished & Installed	5	EA	$11,000	$55,000	
2	Rock Socket for Boarding Float Piles	5	EA	$9,000	$45,000	
3	Furnish 6'x36' Floats	4	EA	$21,600	$86,400	
4	Transport and Install Supplied Floats	4	EA	$5,000	$20,000	
5	Furnish and Install Steel Pile Caps for Float support at low tides	10	EA	$3,500	$35,000	
6	Offshore Rails					
	Site Prep	1	Lump	$15,000	$15,000	
	Pile Supply	600	Lin. Ft.	$175	$105,000	
	Rock Socket for Rail Pile	24	Each	$7,000	$168,000	
	Steel Rail Supports	1742	Lbs	$10	$17,420	
	Supply Rails	240	Lin. Ft.	$50	$12,000	
	Install Rails	1	Lump	$15,000	$15,000	
7	Apron Rails & Winch					
	Concrete Casting	1	Lump	$5,000	$5,000	
	Rail Supply	64	Lin. Ft.	$50	$3,200	
	Install Rails	1	Lump	$3,000	$3,000	
	Winch & Cable Supply	1	Each	$15,000	$15,000	
	Carriage & Misc. Supply	1	Each	$18,000	$18,000	
	Installation & Testing	1	Lump	$15,000	$15,000	
8	Lifting Frame					
	Foundations	4	Each	$3,000	$12,000	
	Pipe Supports	50	Lin. Ft.	$60	$3,000	
	Cross Beams	26	Lin. Ft.	$113	$2,925	
	Rail Beam	40	Lin. Ft.	$75	$3,000	
	Hoist & Controls	1	Each	$5,000	$5,000	
	Installation & Testing	1	Lump	$15,000	$15,000	
9	Marine Rail Open sided Shed (30'x32')	960	SF	$75	$72,000	
10	Electrical and controls	1	Lump	$25,000	$25,000	
11	Project Clean-up	1	Lump	$9,750	$9,750	
12	General Costs (18%)	1	LS	$140,525	$140,525	
					Subtotal	**921,220**
					Total Incl. 25% Contingency and Sales Tax	**1,199,429**
Mooring Buoys						
1	Marker Buoys and Hardware	12	EA	$1,200	$14,400	
2	28' Vessel Mooring Buoy Anchor	12	EA	$3,500	$42,000	
3	General Costs (18%)	1	LS	$10,152	$10,152	
					Subtotal	**66,552**
					Total Incl. 25% Contingency and Sales Tax	**86,651**
Non Motorized Low Freeboard Docks and Kayak Launch						
1	Furnish 8'x40' Low Freeboard Floats	4	EA	$28,000	$112,000	
2	Furnish 8'x20' Kayak Launch Floats	1	EA	$14,000	$14,000	
3	Transport and Install Low Freeboard Floats and Kayak Launch	3	EA	$4,000	$12,000	
4	General Costs (18%)	1	LS	$24,840	$24,840	
					Subtotal	**162,840**
					Total Incl. 25% Contingency and Sales Tax	**212,018**

NOTES:
1. General costgs cover mobilization, environmental protection, surveying, and other incidental costs.
2. Engineering, Regulatory Permitting, Data Collection (Geotechnical) and mitigation cossts are not included.
3. No escalaation factors included.
4. Upland Improvements not included.

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

August 24, 2018

Washington Department of Fish and Wildlife
600 Capitol Way North
Olympia, WA 98504

Attn: Ms. Kristen Kuykendall

RE: SNOW CREEK EELGRASS SURVEY, CLALLAM COUNTY, WASHINGTON

Shannon & Wilson, Inc. was contracted by the Washington Department of Fish and Wildlife (WDFW) to provide an eelgrass survey at the old Snow Creek Resort property, located on State Route 112, or the Strait of Juan de Fuca Highway, approximately 2.5 miles southeast of Neah Bay (Figure 1). The property is located on Clallam County parcel number 14331733, within Section 18, Range 14 West, Township 33N of the Willamette Meridian. We understand that WDFW is requesting the eelgrass survey at the old Snow Creek Resort to support a feasibility study evaluating potential shoreline such as a boat ramp, mooring buoys, or kayak launch.

Our scope consisted of (1) reviewing existing eelgrass documentation in the vicinity of the project site and (2) performing the eelgrass survey on the property within the study area you emailed to Katie Walter on July 19, 2018. We understand from the communication that the northern limits of the study area are intended to reach -5 mean lower low water (MLLW). This letter summarizes our findings.

METHODOLOGY

Prior to conducting the survey, we reviewed the Washington Department of Natural Resources (DNR) Puget Sound Eelgrass Monitoring Data Viewer.[1] The DNR map identifies the project site as 'not sampled.' However, approximately 0.5 mile to the southeast of the project site, the map view identifies a stretch of shoreline that contains a mix of eelgrass (*Zostera marina*) and surfgrass (*Phyllospadix* sp.), but describes the area as having "insufficient data." Additionally,

[1] Washington State Department of Natural Resources, 2018, Puget sound eelgrass monitoring data viewer: Olympia, Wash., Washington State Dept. of Natural Resources, available: https://www.dnr.wa.gov/programs-and-services/aquatics/aquatic-science/puget-sound-eelgrass-monitoring-data-viewer, accessed August 2018.

400 NORTH 34TH STREET, SUITE 100
P.O. BOX 300303
SEATTLE, WASHINGTON 98103-8636
206-632-8020 FAX: 206-695-6777
www.shannonwilson.com

the DNR map viewer identifies a large patch of eelgrass (*Zostera marina*) approximately 1.75 miles to the southeast of the project site. This mapped eelgrass bed is identified as growing between -9 ft MLLW and -30.20 MLLW.

The eelgrass survey was performed on August 10 and 11 by Sarah Corbin and Amy Summe, two senior Shannon & Wilson biologists trained in eelgrass delineation by the U.S. Army Corps of Engineers (Corps). On the afternoon of Friday, August 10, we established 12 transects perpendicular to the shoreline, within the study area (Photo 1). A hand-held global positioning system was used to mark the locations of the transects. We also observed the low tide of 2.5 MLLW at 6:37 p.m. on August 10 (Photo 2). On the morning of August 11, we returned to the site to perform the eelgrass survey during the morning's low tide of -2.4 MLLW at 7:43 a.m. We implemented the National Oceanic and Atmospheric Administration 2014 eelgrass survey methodology, wherein the eelgrass patch is identified if any eelgrass shoot within 1 square meter quadrat is within 1 meter of another eelgrass shoot. We surveyed the study area by walking the transects and Amy Summe snorkeled the portion of the study area that remained underwater at the low tide (Figure 2, Photo 3). Based on the low tide water elevation at 7:43 a.m., we estimate that the snorkel survey reached approximately -7.4 MLLW. Amy also extended the snorkel survey to the east and west, beyond the study area to the approximate limits shown in Figure 2. Water clarity allowed approximately 5 feet of visibility during the survey.

RESULTS

No eelgrass beds were observed within the study area or extended snorkel survey area. However, patches of surfgrass (*Phyllospadix* sp.) and a wide variety of macroalgae were observed throughout the intertidal zone. The surfgrass was observed growing on bedrock or large isolated boulders at a variety of elevations (Photos 4, 5, and 6). Seaweeds observed in the intertidal zone included sea lettuce (*Ulva* sp.), rainbow leaf (*Mazzaella* sp.), rock weed (*Fucus* sp.), Turkish towel (*Chondracanthus* sp.), and feather boa kelp (*Egregia* sp.) (Photos 7 and 8).

Substrate within the study area consisted mainly of fine to coarse sands and small gravels. Photos showing substrate conditions along the transects are included as Photos 9, 10, and 11.

CONCLUSIONS

Based on our survey results, there are no eelgrass patches within the study area. However, eelgrass bed boundaries can shift significantly within the span of one year. We understand that

the potential shoreline improvements under evaluation would not be constructed for several years. The Corps requires projects with marine shoreline impacts to include eelgrass survey results that have been completed within one year of application submittal. Therefore, we recommend resurveying the area within one year of permit application submittal to reassess eelgrass presence or absence. Additionally, given that the DNR maps eelgrass beds 1.75 miles to the southeast of the project between elevations -9 MLLW and -30.2 MLLW, a future eelgrass survey may need to extend to deeper elevations if there is a potential for project improvements in the area.

LIMITATIONS

The findings and conclusions documented in this letter have been prepared for specific application to this project and have been developed in a manner consistent with that level of care and skill normally exercised by members of the environmental science profession currently practicing under similar conditions in the area, and in accordance with the terms and conditions set forth in our agreement. The conclusions presented in this letter are professional opinions based on interpretation of information currently available to us and are made within the operational scope, budget, and schedule constraints of this project. No warranty, express or implied, is made.

We appreciate the opportunity to be of service to you. If you have any questions or would like clarification of the information provided herein, please contact me at scc@shanwil.com or (206) 695-6674.

Sincerely,

SHANNON & WILSON, INC.

Sarah Corbin, PWS
Senior Biologist

SCC:KLW/scc

Enc: Site Photos (Photos 1 through 11)
Figure 1 – Vicinity Map
Figure 2 – Eelgrass Survey Map

Photo 1: The top of established transects, marked by orange pin flags (only half are shown in photo); viewing southeast; taken on August 10, 2018.

Photo 2: The Snow Creek Resort eelgrass study area at approximately 2.5 mean lower low water; viewing northwest; taken on August 11, 2018.

Photo 3: Snorkel surveys were completed the morning of August 11; viewing north; taken on August 11, 2018.

Photo 4: A patch of surfgrass (*Phyllospadix* sp.) growing on bedrock within the intertidal zone in the study area; taken on August 11, 2018.

Photo 5: Surfgrass (Phyllospadix sp.) growing on an isolated boulder in the study area; taken on August 11, 2018.

Photo 6: Surfgrass growing on a large rock on the edge of a kelp bed; taken on August 11, 2018.

Photo 7: Macroalgae growing within the intertidal zone in the study area; taken on August 10, 2018.

Photo 8: Macroalgae and surfgrass growing within the intertidal zone in the study area; taken on August 11, 2018.

Photo 9: Substrate along Transect 5, located identified by "P9" on Figure 2; taken on August 11, 2018.

Photo 10: Substrate along Transect 1, located identified by "P10" on Figure 2; taken on August 11, 2018.

Photo 11: Substrate along Transect 12, located identified by "P101" on Figure 2; taken on August 11, 2018.

N
W E
S

Snowcreek Eelgrass Survey
Washington Department of Fish and Wildlife
Clallam County, Washington

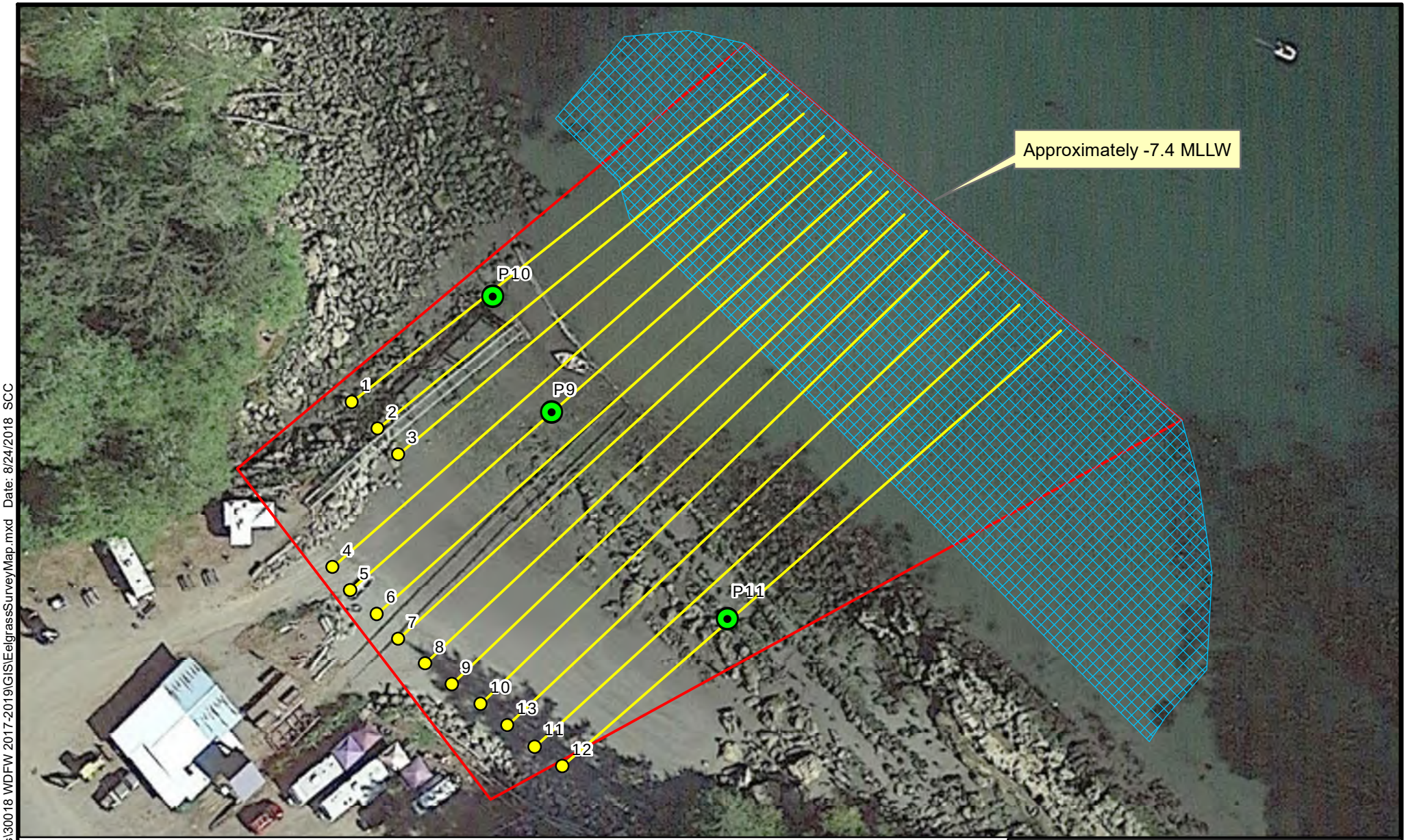
VICINITY MAP

August 2018 21-1-30018-001

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

FIG. 1

Filename: I:\EF\21-1 SEA\30000s\30018 WDFW 2017-2019\GIS\VicinityMap.mxd Date: 8/23/2018 SCC



Legend

- Survey Transects
- Approximate Snorkel Survey Area
- Study Area
- P9 Substrate Photo Point (Photo Number Indicated e.g. P9)

Note: Study area limits were provided by Kristen Kuykendall of Washington Department of Fish and Wildlife via email on July 19th, 2018.

N W E S

80 40 0 80 Feet

Snow Creek Eelgrass Survey
Washington Department of Fish and Wildlife
Clallam County, Washington

EELGRASS SURVEY MAP

August 2018

21-1-30018-001

SHANNON & WILSON, INC.
GEOTECHNICAL AND ENVIRONMENTAL CONSULTANTS

FIG. 2

Filename: I:\EF\21-1 SEA\30000s\30018 WDFW 2017-2019\GIS\EelgrassSurveyMap.mxd Date: 8/24/2018 SCC

STATE OF WASHINGTON
AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Washington Department of Fish & Wildlife
Project Name	Snow Creek Resort
OFM Project Number	

Contact Information	
Name	Aaron Harris
Phone Number	(360)902-8394
Email	aaron.harris@dfw.wa.gov

Statistics			
Gross Square Feet	na	MACC per Square Foot	
Usable Square Feet	na	Escalated MACC per Square Foot	
Space Efficiency		A/E Fee Class	B
Construction Type	Other Sch. B Projects	A/E Fee Percentage	9.14%
Remodel	No	Projected Life of Asset (Years)	50
Additional Project Details			
Alternative Public Works Project	No	Art Requirement Applies	No
Inflation Rate	3.12%	Higher Ed Institution	No
Sales Tax Rate %	8.50%	Location Used for Tax Rate	Clallam Co
Contingency Rate	4%		
Base Month	June-18		
Project Administered By	Agency		

Schedule			
Predesign Start		Predesign End	
Design Start	July-19	Design End	July-21
Construction Start	August-21	Construction End	August-23
Construction Duration	24 Months		

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Project Cost Estimate

Total Project	**$4,564,383**	Total Project Escalated	**$5,143,576**
		Rounded Escalated Total	**$5,144,000**

STATE OF WASHINGTON

AGENCY / INSTITUTION PROJECT COST SUMMARY

Agency	Washington Department of Fish & Wildlife
Project Name	Snow Creek Resort
OFM Project Number	

Cost Estimate Summary

Acquisition			
Acquisition Subtotal	**$0**	**Acquisition Subtotal Escalated**	**$0**

Consultant Services			
Predesign Services	$0		
A/E Basic Design Services	$224,313		
Extra Services	$95,000		
Other Services	$100,778		
Design Services Contingency	$16,804		
Consultant Services Subtotal	**$436,895**	**Consultant Services Subtotal Escalated**	**$474,077**

Construction			
Construction Contingencies	$136,800	Construction Contingencies Escalated	$155,501
Maximum Allowable Construction Cost (MACC)	$3,420,000	Maximum Allowable Construction Cost (MACC) Escalated	$3,868,939
Sales Tax	$302,328	Sales Tax Escalated	$342,078
Construction Subtotal	**$3,859,128**	**Construction Subtotal Escalated**	**$4,366,518**

Equipment			
Equipment	$0		
Sales Tax	$0		
Non-Taxable Items	$0		
Equipment Subtotal	**$0**	**Equipment Subtotal Escalated**	**$0**

Artwork			
Artwork Subtotal	**$0**	**Artwork Subtotal Escalated**	**$0**

Agency Project Administration			
Agency Project Administration Subtotal	$208,360		
DES Additional Services Subtotal	$0		
Other Project Admin Costs	$0		
Project Administration Subtotal	**$208,360**	**Project Administation Subtotal Escalated**	**$236,843**

Other Costs			
Other Costs Subtotal	**$60,000**	**Other Costs Subtotal Escalated**	**$66,138**

Project Cost Estimate

Total Project	**$4,564,383**	Total Project Escalated	**$5,143,576**
		Rounded Escalated Total	**$5,144,000**

Cost Estimate Details

Consultant Services				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Pre-Schematic Design Services				
Programming/Site Analysis				
Environmental Analysis				
Predesign Study				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.0338**	**$0**	Escalated to Design Start
2) Construction Documents				
A/E Basic Design Services	$224,313			69% of A/E Basic Services
Other				
Insert Row Here				
Sub TOTAL	**$224,313**	**1.0661**	**$239,141**	Escalated to Mid-Design
3) Extra Services				
Civil Design (Above Basic Svcs)				
Geotechnical Investigation	$25,000			
Commissioning				
Site Survey				
Testing				
LEED Services				
Voice/Data Consultant				
Value Engineering				
Constructability Review				
Environmental Mitigation (EIS)				
Landscape Consultant	$25,000			
Permits	$45,000			
Insert Row Here				
Sub TOTAL	**$95,000**	**1.0661**	**$101,280**	Escalated to Mid-Design
4) Other Services				
Bid/Construction/Closeout	$100,778			31% of A/E Basic Services
HVAC Balancing				
Staffing				
Other				
Insert Row Here				
Sub TOTAL	**$100,778**	**1.1367**	**$114,555**	Escalated to Mid-Const.
5) Design Services Contingency				
Design Services Contingency	$16,804			
Other				
Insert Row Here				
Sub TOTAL	**$16,804**	**1.1367**	**$19,101**	Escalated to Mid-Const.
CONSULTANT SERVICES TOTAL	**$436,895**		**$474,077**	

Green cells must be filled in by user

Cost Estimate Details

Construction Contracts				
Item	**Base Amount**	**Escalation Factor**	**Escalated Cost**	**Notes**
1) Site Work				
G10 - Site Preparation	$175,000			
G20 - Site Improvements	$150,000			
G30 - Site Mechanical Utilities	$75,000			
G40 - Site Electrical Utilities	$75,000			
G60 - Other Site Construction				
Other				
Insert Row Here				
Sub TOTAL	**$475,000**	**1.1023**	**$523,593**	
2) Related Project Costs				
Offsite Improvements				
City Utilities Relocation				
Parking Mitigation				
Stormwater Retention/Detention	$65,000			
Other				
Insert Row Here				
Sub TOTAL	**$65,000**	**1.1023**	**$71,650**	
3) Facility Construction				
A10 - Foundations	$35,000			
A20 - Basement Construction				
B10 - Superstructure	$135,000			
B20 - Exterior Closure				
B30 - Roofing				
C10 - Interior Construction				
C20 - Stairs				
C30 - Interior Finishes				
D10 - Conveying				
D20 - Plumbing Systems	$35,000			
D30 - HVAC Systems				
D40 - Fire Protection Systems				
D50 - Electrical Systems				
F10 - Special Construction	$2,600,000			
F20 - Selective Demolition	$75,000			
General Conditions				
Other				
Insert Row Here				
Sub TOTAL	**$2,880,000**	**1.1367**	**$3,273,696**	
4) Maximum Allowable Construction Cost				
MACC Sub TOTAL	**$3,420,000**		**$3,868,939**	

This Section is Intentionally Left Blank

7) Construction Contingency				
Allowance for Change Orders	$136,800			
Other				
Insert Row Here				
Sub TOTAL	**$136,800**	**1.1367**	**$155,501**	
8) Non-Taxable Items				
Other				
Insert Row Here				
Sub TOTAL	**$0**	**1.1367**	**$0**	
Sales Tax				
Sub TOTAL	**$302,328**		**$342,078**	
CONSTRUCTION CONTRACTS TOTAL	**$3,859,128**		**$4,366,518**	

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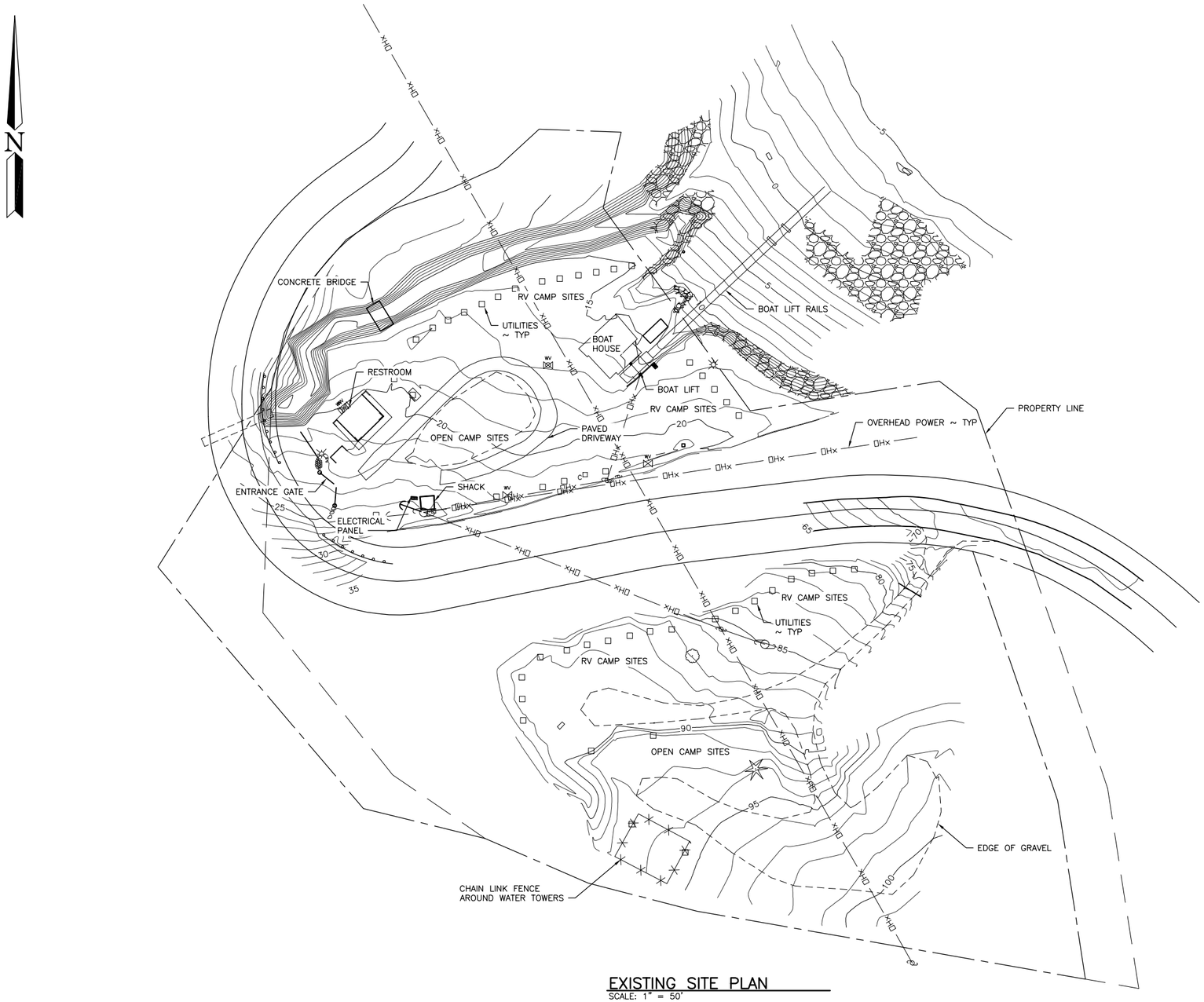


EXISTING SITE PLAN

SCALE: 1" = 50'

0 20 40 75 150
10 30 50 100
SCALE: 1" = 50'

NOT APPROVED FOR CONSTRUCTION

WASHINGTON STATE
DEPARTMENT OF FISH AND WILDLIFE

SYM	DATE	REVISION DESCRIPTION	BY

APPROVED AND RELEASED FOR CONSTRUCTION

CHIEF ENGINEER ..... DATE: .....

PROGRAM ..... DATE: .....

0 —— 1"
BAR MEASURES ONE INCH ON ORIGINAL DRAWINGS

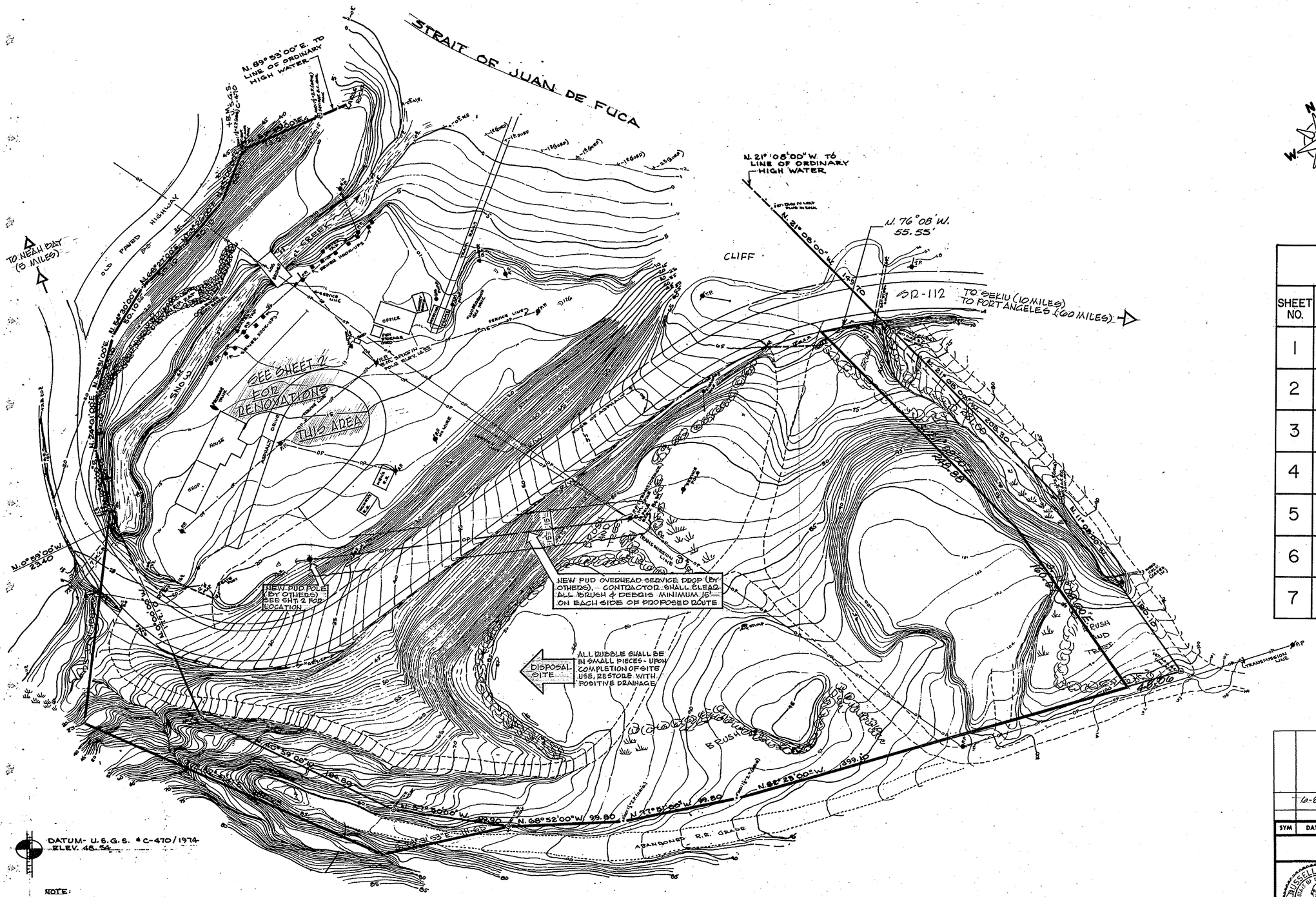
DESIGNED BY _____
CHECKED BY _____
DRAWN BY _____
DATE _____

SNOW CREEK RESORT

EXISTING SITE PLAN

PROJECT NO.

SHEET | OF



GOVERNMENT LOTS 2 & 3 OF SECTION 17, TOWNSHIP 33 NORTH, RANGE 14 WEST

MERIDIAN - TRUE BY SOLAR OBSERVATION

PLAN LIST

SHEET NO.	TITLE
1	LOCATION PLAN
2	SITE PLAN
3	FLOOR-FOUNDATION PLANS
4	SECTIONS-DETAILS
5	ELEVATIONS-DETAILS
6	ELECTRICAL-PLUMBING
7	PLUMBING-SCHEMATIC

SYM	DATE	REVISION	BY	APP'D
	6-86	RE-SITED COMFORT STATION AND CARPORT BACK, RELOCATED UTILITY SYSTEMS.	DA	TB
		Released for construction		

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES

RUSSELL D. WEBB — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

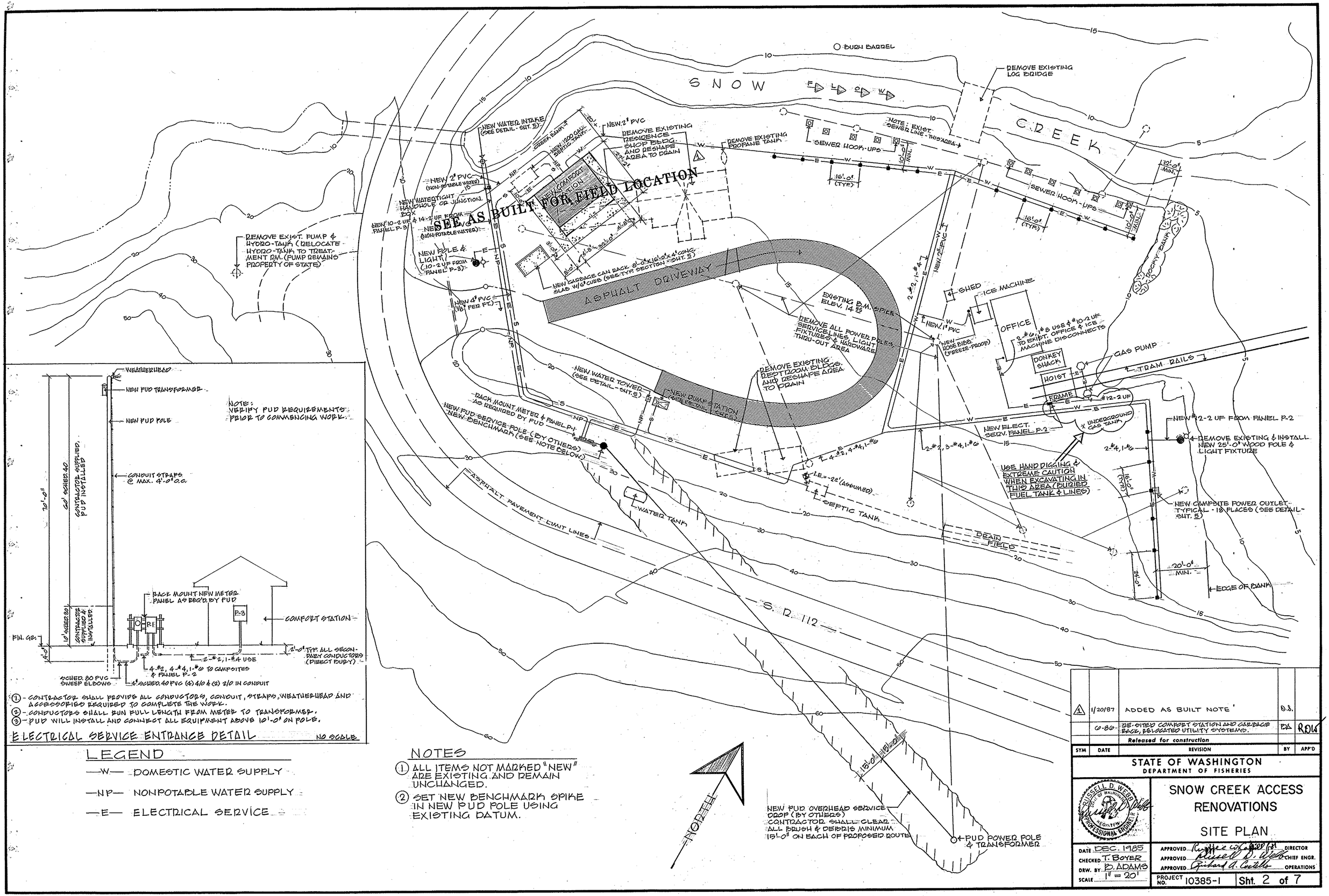
SNOW CREEK ACCESS RENOVATIONS

LOCATION PLAN

DATE DEC. 1985
CHECKED J. BOYER
DRW. BY SCJ/DA.
SCALE 1" = 40'

APPROVED Rupert W. Calvin Jr. DIRECTOR
APPROVED Russell D. Webb CHIEF ENGR.
APPROVED Richard L. Conklin OPERATIONS

PROJECT NO. 10385-1 | Sht. 1 of 7



NOTE: VERIFY PUD REQUIREMENTS PRIOR TO COMMENCING WORK.

① - CONTRACTOR SHALL PROVIDE ALL CONDUCTORS, CONDUIT, STRAPS, WEATHER-HEAD AND ACCESSORIES REQUIRED TO COMPLETE THE WORK.
② - CONDUCTORS SHALL RUN FULL LENGTH FROM METER TO TRANSFORMER.
③ - PUD WILL INSTALL AND CONNECT ALL EQUIPMENT ABOVE 10'-0" ON POLE.

ELECTRICAL SERVICE ENTRANCE DETAIL — NO SCALE

LEGEND

—W— DOMESTIC WATER SUPPLY
—NP— NONPOTABLE WATER SUPPLY
—E— ELECTRICAL SERVICE

NOTES

① ALL ITEMS NOT MARKED "NEW" ARE EXISTING AND REMAIN UNCHANGED.
② SET NEW BENCHMARK SPIKE IN NEW PUD POLE USING EXISTING DATUM.

SYM	DATE	REVISION	BY	APP'D
4	1/20/87	ADDED AS BUILT NOTE	D.S.	
	6-86	RE-SITED COMFORT STATION AND GARBAGE RACK, RELOCATED UTILITY SYSTEMS.	DA	RDW
		Released for construction		

STATE OF WASHINGTON
DEPARTMENT OF FISHERIES

RUSSELL D. WEBB — STATE OF WASHINGTON — REGISTERED PROFESSIONAL ENGINEER

SNOW CREEK ACCESS RENOVATIONS

SITE PLAN

DATE DEC. 1985
CHECKED T. BOYER
DRW. BY D. ADAMS
SCALE 1" = 20'

APPROVED ..... DIRECTOR
APPROVED Russell D. Webb ..... CHIEF ENGR.
APPROVED Richard A. Smith ..... OPERATIONS

PROJECT NO. 10385-1 | Sht. 2 of 7

Small Water System Start-up Shut-down Self-Inspection Checklist

October 2010
DOH 331-312
Updated

This checklist will help you to identify potential problems with your water system that may allow contamination to enter. If any item below is checked "No" it means improvements need to be made. If you are unsure what improvement to make, contact your Office of Drinking Water regional engineer.

Completion of this form will document you've checked the following components of your water system during start-up and shut-down for one year of operation. It is recommended you write in the date you complete each item and keep this record.

	Start-up _____		**Shut-down _____**	
	Check one	**Date**	**Check one**	**Date**
Well Source and Pumphouse				
Is the pumphouse locked and protected from trespassers?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the well protected from tampering?	☐ Yes ☐ No		☐ Yes ☐ No	
Are all chemicals (pesticides, gas, herbicides, paints, solvents, etc.) more than 100 feet away from the well?	☐ Yes ☐ No		☐ Yes ☐ No	
If there are any signs of animal activity, are they at least 100 feet away from the well?	☐ Yes ☐ No		☐ Yes ☐ No	
If you have a back-up generator, is the fuel and generator stored so any fuel leaks will be captured in a secondary (back-up) containment area?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the well cap free of openings that would allow an insect to crawl into the well?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the well casing vent inverted and is the screen intact?	☐ Yes ☐ No		☐ Yes ☐ No	
Are rodents or insects being kept out of the well house and away from the well head? *Look for droppings, chewed papers, or nesting materials.*	☐ Yes ☐ No		☐ Yes ☐ No	

	Start-up _____		Shut-down _____	
	Check one	**Date**	**Check one**	**Date**
Is the sample tap working properly?	☐ Yes ☐ No		☐ Yes ☐ No	
Do you have a water meter for the well and is it working?	☐ Yes ☐ No		☐ Yes ☐ No	
Meter Readings: Start-up: _____ on _____ (date) Shut-down: _____ on _____ (date)				
Are you recording water use on a routine basis when you are open?	☐ Yes ☐ No		☐ Yes ☐ No	
In the past year, have you verified your water meter is accurately measuring the water pumped by the system? *You can verify this by pumping into a bucket or barrel of known volume and comparing it to the meter readings.*	☐ Yes ☐ No		☐ Yes ☐ No	
Did you measure and record the static water level? Static water level: _____ on _____ (date) *Disinfect the probe prior to measuring the static water level.*	☐ Yes ☐ No		☐ Yes ☐ No	

Chlorination

Make sure the chlorinator is pumping chlorine at an adequate dose throughout distribution.
Test the free chlorine residual at least twice on separate days and evaluate results. Make adjustments as needed.

Is the treatment working properly?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the chlorine residual test kit working and are the reagents fresh?	☐ Yes ☐ No		☐ Yes ☐ No	
Have you replaced all of the chlorinator tubing within the last year?	☐ Yes ☐ No		☐ Yes ☐ No	
Have you checked the chemical injection point and cleaned it?	☐ Yes ☐ No		☐ Yes ☐ No	
Have you verified the chemical feed pump is working properly?	☐ Yes ☐ No		☐ Yes ☐ No	
Did you buy new chlorine solution (bleach) and discard last year's supply?	☐ Yes ☐ No		☐ Yes ☐ No	
Start-up: Do you have enough Chlorination Report forms for this year?	☐ Yes ☐ No			
Shut-down: Were all Chlorination Reports submitted to your Office of Drinking Water regional office for the operating season?			☐ Yes ☐ No	

	Start-up _____		Shut-down _____	
	Check one	**Date**	**Check one**	**Date**

Other Treatment

Make sure the treatment unit is actually adding or removing the water quality parameter (for example, iron) in question.
You need to measure the parameter at least twice on separate days.
If you have specific questions about how to do this, contact the manufacturer or call your Office of Drinking Water regional engineer.

Pressure Tanks

Can you ensure none of your pressure tanks are waterlogged?	☐ Yes ☐ No		☐ Yes ☐ No	
Do the air/water level controls function properly?	☐ Yes ☐ No		☐ Yes ☐ No	
Is there a pressure relief valve on each tank?	☐ Yes ☐ No		☐ Yes ☐ No	

Storage Tanks

Have you cleaned the inside of the tank within the last five years?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the tank overflow pipe screened and is the screen intact?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the access hatch locked?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the tank vent properly screened and is the screen fully intact?	☐ Yes ☐ No		☐ Yes ☐ No	
Are birds or bats being kept out of the tank?	☐ Yes ☐ No		☐ Yes ☐ No	
Are insects and spiders being kept out of the hatch area, especially on the inside of the lid?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the bottom of the tank free from sediment build-up?	☐ Yes ☐ No		☐ Yes ☐ No	
Are the storage tank roof and sides structurally intact without holes and cracks?	☐ Yes ☐ No		☐ Yes ☐ No	
Are the water level controls functioning properly?	☐ Yes ☐ No		☐ Yes ☐ No	
Is the coating on the inside or outside of the tank in good condition?	☐ Yes ☐ No		☐ Yes ☐ No	

	Start-up _____		Shut-down _____	
	Check one	**Date**	**Check one**	**Date**
Distribution Lines				
When you walk the lines, can you ensure none of them is exposed?	☐ Yes ☐ No		☐ Yes ☐ No	
Have you located each valve and shut down and re-opened each one to ensure they all work?	☐ Yes ☐ No		☐ Yes ☐ No	
Have you checked your system for leaks? *You can read the source meter when the system use should be zero, such at 2 a.m., to get an estimate of leaks.*	☐ Yes ☐ No		☐ Yes ☐ No	
Are you avoiding 'frost-free' hydrants for water service? *The weep hole in frost-free hydrants can allow potential contaminants to enter the system.*	☐ Yes ☐ No		☐ Yes ☐ No	
Are all outdoor hose bibs provided with vacuum breakers?	☐ Yes ☐ No		☐ Yes ☐ No	
Have you had all of your cross-connection control devices tested and did they pass?	☐ Yes ☐ No		☐ Yes ☐ No	
If you have an RV dump station, can you ensure the drinking water line can't reach the sewer pad?	☐ Yes ☐ No		☐ Yes ☐ No	

For more information

Call your Office of Drinking Water regional office:

Eastern Region: Spokane Valley 509-329-2100

Northwest Region: Kent 253-395-6750

Southwest Region: Tumwater 360-236-3030

PUBLIC HEALTH
ALWAYS WORKING FOR A SAFER AND HEALTHIER WASHINGTON

For people with disabilities, this document is available on request in other formats. To submit a request, please call 1-800-525-0127 (TDD/TTY call 711).

S F NO. 369—1-57 -551 67879 O S

CERTIFICATE RECORD NO. 17, PAGE NO. 8408

STATE OF WASHINGTON, COUNTY OF Clallam

1643

CERTIFICATE OF SURFACE WATER RIGHT

(In accordance with the provisions of Chapter 117, Laws of Washington for 1917, and amendments thereto, and the rules and regulations of the State Supervisor of Water Resources thereunder.)

This is to certify that JOHN and ELEANOR HATTON

of Neah Bay, *State of* Washington, *has made proof to the satisfaction of the State Supervisor of Water Resources of Washington, of a right to the use of the waters of* Sweet Ck. and an unnamed stream *tributary of* Strait of Juan de Fuca, *with point or points of diversion within the* Govt. Lot 2 *Sec.* 17, *Twp.* 33 *N., R.* 14 W. *W. M., under and subject to provisions contained in* Appropriation *Permit No.* 12249 *issued by the State Supervisor of Water Resources, and that said right to the use of said waters has been perfected in accordance with the laws of Washington, and is hereby confirmed by the State Supervisor of Water Resources of Washington and entered of record in Volume* 17 *at Page* 8408, *on the* 23rd *day of* April, 19 62, *that the priority date of the right hereby confirmed is* October 21, 1960; *that the amount of water under the right hereby confirmed, for the following purposes is limited to an amount actually beneficially used and shall not exceed* 0.05 of a cubic foot per second, for group domestic supply.

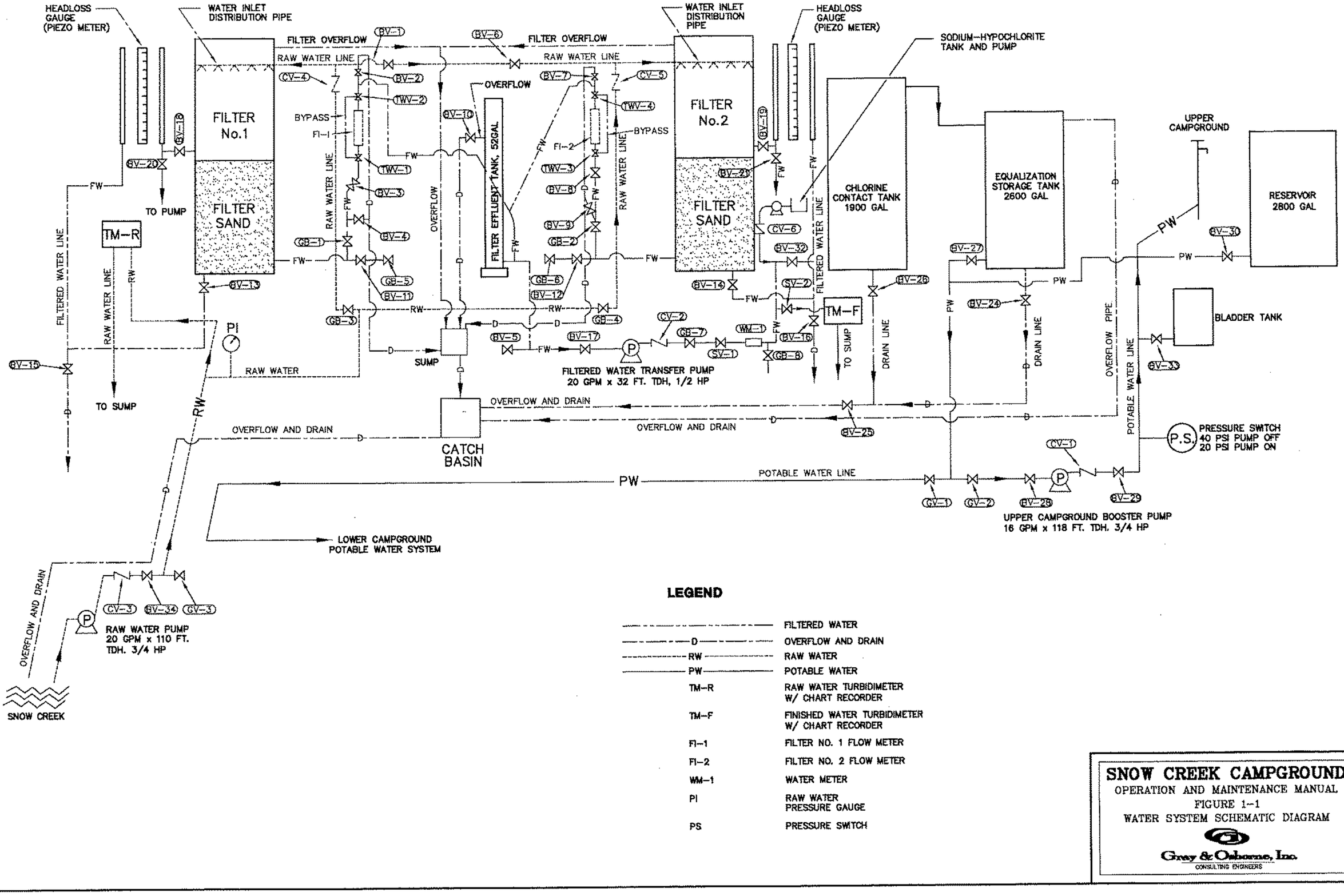
A description of the lands under such right to which the water right is appurtenant, and the place where such water is put to beneficial use, is as follows:

Commencing at a point which is 1919.5 feet east and 240.0 feet due north of the section corner common to Sections 17, 18, 19, 20, T. 33 N., R. 14 W.W.M.; thence north 42°23' west 399.1 feet; thence north 77°51' west 99.8 feet; thence north 68°52' west 99.8 feet; thence north 57°30' west 99.9 feet; thence north 40°59' west 186.8 feet; thence north 177.1 feet; thence around a curve to the right on the following distances and bearings: north 38°45' east 50.1 feet; thence north 24°02' east 50.1 feet; thence north 38°51' east 50.1 feet; thence north 54°30' east 50.1 feet; thence north 68°27' east 50.1 feet; thence north 63°26' east 50.1 feet; thence north 45° east 50.1 feet; thence leaving said road north 89°53' east 73.0 feet; thence south 11°05' west 69.2 feet; thence south 38°14' east 229.0 feet; thence north 78°45' east 170.3 feet; thence south 54°40' east 42.0 feet; thence south 21°08' east 358.0 feet; thence south 11°08' east 180.1 feet to the point of beginning.

The right to the use of the water aforesaid hereby confirmed is restricted to the lands or place of use herein described, except as provided in Sections 6 and 7, Chapter 122, Laws of 1929.

WITNESS the seal and signature of the State Supervisor of Water Resources affixed this 23rd *day of* April, 19 62

State Supervisor of Water Resources.



LEGEND

———————	FILTERED WATER
——D———	OVERFLOW AND DRAIN
——RW———	RAW WATER
——PW———	POTABLE WATER
TM-R	RAW WATER TURBIDIMETER W/ CHART RECORDER
TM-F	FINISHED WATER TURBIDIMETER W/ CHART RECORDER
FI-1	FILTER NO. 1 FLOW METER
FI-2	FILTER NO. 2 FLOW METER
WM-1	WATER METER
PI	RAW WATER PRESSURE GAUGE
PS	PRESSURE SWITCH

SNOW CREEK CAMPGROUND

OPERATION AND MAINTENANCE MANUAL

FIGURE 1-1

WATER SYSTEM SCHEMATIC DIAGRAM

Grey & Osborne, Inc.
CONSULTING ENGINEERS

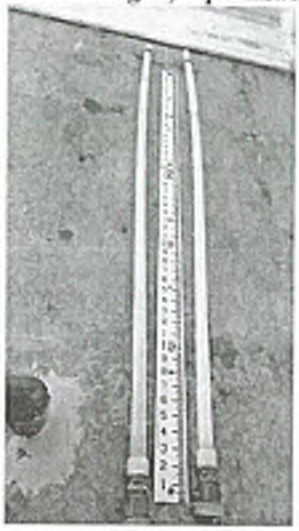
Well Screen (right) and suction piping for raw water intake

Raw Water Lift Pump

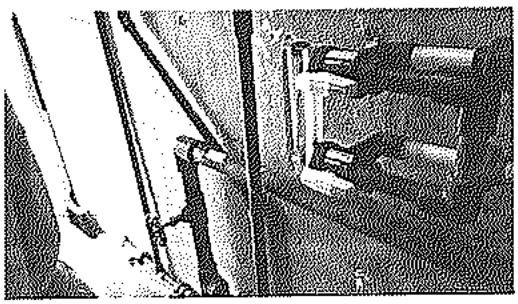
Water Treatment Plant

Contact tanks, left and right; equalization tank, center

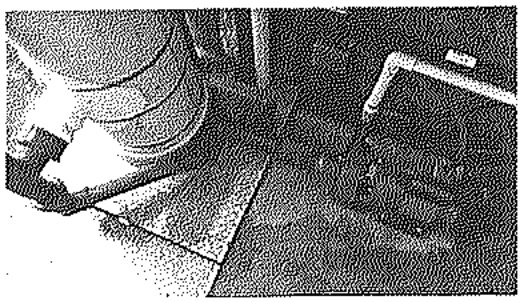
Looking into WTP control room



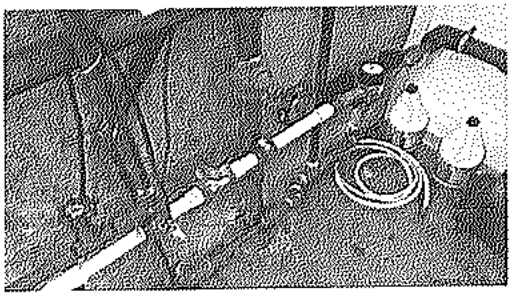
Filter pressure differential manometers



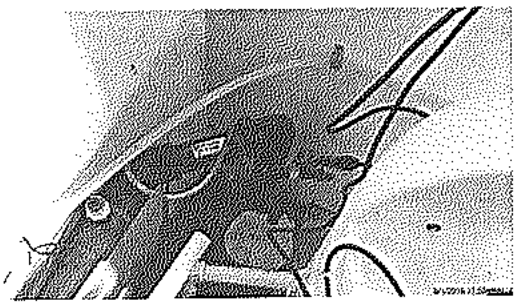
Filter flow meter



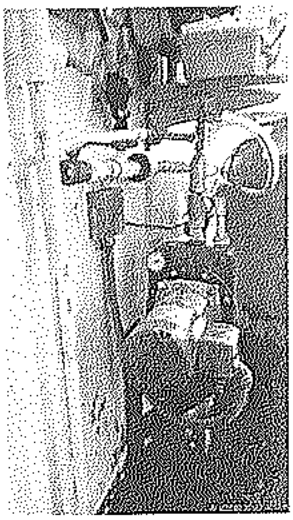
Filtered water transfer pump



Solenoid valve and source meter on filtered water transfer line



Chlorine injection point



Upper pressure zone pressure pump

Motorhomes in the upper pressure zone

WASHINGTON STATE DEPARTMENT OF
NATURAL RESOURCES

Guidelines for Licensing a Recreational Mooring Buoy or Boatlift on State-Owned Aquatic Lands

Note: To apply for a mooring buoy or boat lift authorization for **Quartermaster Harbor ONLY**, please use the form available at:
www.dnr.wa.gov/Publications/aqr_mooringbuoy_app_qtrmstrhbr.pdf

If you already have or plan to install a mooring buoy or boat lift on state-owned aquatic lands*, you will need authorization from the Washington State Department of Natural Resources (DNR). In addition, you may also need to obtain permits from other agencies, depending on the location of your project.

All the applications are available online at one location under the **Joint Aquatic Resources Permit Application** (JARPA). A complete DNR application must also include **Attachment E** of the JARPA. (Go to http://tinyurl.com/jarpa-wa)

◗ The following guidelines will help you in preparing the main JARPA form:

Under question 6b "Describe the purpose of the project and why you want or need to perform it," include the following:

1. The point of access, parking, and dinghy storage locations.
2. Depth of water at buoy or boatlift location at mean lower low water (MLLW).
3. Length of vessel(s).
4. Vessel(s) registration number.
5. Describe in detail your plan for operating and maintaining the mooring buoy or boatlift and anchoring system. (See pages 2-3 of these guidelines for more information.)

BOATLIFT application only—include the following information:

1. What the boatlift is secured to (ex. recreational dock, bulkhead, buoy, anchor, freestanding, or other).
2. What the boatlift is made of (ex. steel, aluminum, polyethylene, wood, or other).
3. Whether or not the boatlift will remain in place year round. If not, identify the dates in which you will remove it from state-owned aquatic land.

* DNR is steward of 2.6 million acres of **state-owned aquatic lands.** On behalf of the people of Washington, we manage the resources attached to or embedded in aquatic lands (ex. seaweed, shellfish, sand, minerals and oil), as well as the man-made structures in the water and air space above these lands.

Attach an 8-1/2 x 11-inch vicinity map that clearly shows:

1. The proposed or existing GPS position of the buoy or boatlift.
2. The position of the buoy or boatlift in relation to its anchor—if not directly below.
3. The extent of the swing of the vessel using a full circle (buoy only). This circle must be free from all obstacles including buoys, docks, or other hazards (e.g., other vessel swing circles).
4. The nearest upland parcel and distance to the ordinary high water mark (line of vegetation).
5. The distance from the appropriate line of state ownership (e.g., mean high tide, extreme low tide, the line of ordinary high water, or the line of navigability—freshwater).
6. The distance from other mooring anchors, structures and/or any hazards or obstructions in the vicinity.
7. The distance to and location of navigation channels.
8. The tidal correction and the depth to the anchor of the buoy or boatlift and how you determined it.

If you have any questions about the information requested in the JARPA, contact the DNR's Mooring Buoy Program in Olympia, Washington, at buoy@dnr.wa.gov or 360-902-1074.

◗ DNR requirements: Plan of operations

You must meet all the requirements outlined in the appropriate plan of operations below before DNR will authorize your new or existing mooring buoy or boatlift.

MOORING BUOY: Plan of Operations and Maintenance

1. Mooring buoys must be anchored where the water will be deeper than 7 feet at Extreme Low Tide or 11.5 feet at Mean Lower Low Water.
2. The buoy must meet or exceed all United States Coast Guard regulations.
3. For visibility and identification:
   a. The buoy must float at least 18 inches above the surface of the water.
   b. The buoy must be reflective white with a blue stripe.
   c. Mark the buoy with the DNR license numbers so that they are visible from 20 feet.
4. For anchor design:
   a. The anchor must be sufficient to hold the vessel in all weather.
   b. The licensee is responsible to ensure the anchor does not move.
   c. If the anchor moves offsite, DNR may terminate this license and require removal of the buoy and anchor.
   d. Use an anchor system that prevents vessel and line dragging and minimizes impacts to the bottom. DNR prefers embedded anchors unless not feasible due to substrate or other site-specific conditions.
   e. DNR does not allow a midline weight used as part of the anchoring system.
5. For buoy design:
   a. All buoys shall have a mid-line float system installed.
   b. The mid-line float must hold the tether line off the bottom at all tides.
   c. Locate the mid-line float at a distance from the anchor that is equal to 1/3 of the water depthat mean high water (MHW).

BOAT LIFT: Plan of Operations and Maintenance

1. Boatlifts used for boat moorage must be anchored where the water will be deeper than 7 feet at the Extreme Low Tide or 11.5 feet at Mean Lower Low Water.
2. The licensee/owner shall inspect the boatlift and anchor annually and maintain them in good working condition. The lifts may not be used:
   - To house vessels during refueling.
   - For vessel maintenance of any kind including washing.
   - To store fuels or oils that may enter onto state-owned aquatic lands.

ADDITIONAL INFORMATION

You may apply for a **no-fee mooring buoy registration** under the following conditions:

- You own the property that abuts State-owned Aquatic Lands and that property is developed with a residence, AND
- Your boat is **NOT** more than 60-feet long, AND
- You use your boat only for recreational purposes.
- Mail your no-fee mooring buoy registration application to DNR Aquatic Resources districts

  For a map of DNR Aquatic Resources districts: https://www.dnr.wa.gov/programs-and-services/aquatics/aquatic-districts-and-land-managers-map

For a no-fee mooring buoy registration, you will not be required to pay the $25 non-refundable application-processing fee. Please see RCW 79.105.430 for additional details on no-fee mooring buoy registration.

You must apply for a **license** (with an annual fee based on vessel length) if:

- You do not own the abutting residential property, OR
- Your boat is more than 60-feet long, OR
- You plan to install a boatlift.

Completing the JARPA and Attachment E

To submit your **license** application to DNR, send the JARPA, Attachment E, vicinity maps, and a $25 non-refundable application-processing fee to the below address. (Agencies, political subdivisions, or municipal corporations of this state or the United States are exempt from the application fee per WAC 332-10-190).

Department of Natural Resources
Aquatic Resources Division
1111 Washington St. SE
MS 47027
Olympia, WA 98504-7027

Aquatic Resources District Offices

DNR manages the 2.6 million acres of State Aquatic Lands statewide—lands under the marine and fresh waters, and beaches. These mostly-submerged lands offer aquatic habitat, navigation, commerce, and public use and access. DNR's aquatic districts provide on-the-ground management.

Orca Straits District Aquatic Resources
919 N. Township St.
Sedro Woolley, WA 98284
(360) 856-3500
Fax (360) 856-2150

Shoreline District Aquatic Resources
950 Farman Ave.
Enumclaw, WA 98022
(360) 825-1631
Fax (360) 825-1672

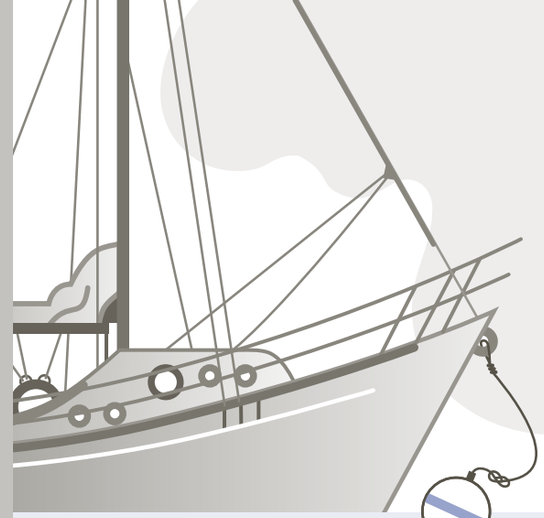
Rivers District Aquatic Resources
601 Bond Rd.
P.O. Box 280
Castle Rock, WA 98611
(360) 577-2025
Fax (360) 274-4196

Mooring buoy information and application are online at www.dnr.wa.gov — Type 'mooring buoy' in the upper right search tool.

Need Help With Your Permits?
For assistance preparing permits, contact the **Office of Regulatory Assistance**. They provide statewide environmental permit information, at **(360) 407-7037** or **1-800-917-0043**

WASHINGTON STATE DEPARTMENT OF
Natural Resources

UPDATED 10/14



Recreational Mooring Buoys

For Residential Owners Next to State-Owned Aquatic Lands

WASHINGTON STATE DEPARTMENT OF
Natural Resources

Shoreline Residents May Moor a Boat on State Aquatic Lands

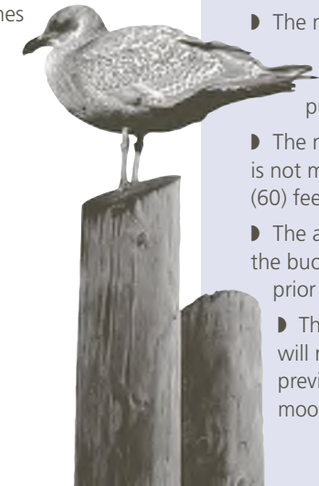
Laws Change for Recreational Mooring Buoys

The 2001 and 2002 Legislatures passed laws about recreational mooring buoys. Individuals who own residential property abutting state-owned aquatic lands may install a mooring buoy on those public lands for recreational purposes without charge.

The law prohibits commercial and transient uses, and living on boats moored to recreational buoys on state lands. It limits boats to sixty feet or less in length, and allows for a second buoy to help secure moorage to the first buoy.

It directs disputes over the assertion of rights to superior court, and it defines the circumstances around which Washington's Department of Natural Resources (DNR) may require a buoy to be relocated or removed:

- To protect access of other landowners;
- If it poses a hazard to or obstructs navigation or fishing;
- If it contributes to degradation of aquatic habitat;
- If it contributes to decertification of shellfish beds.



Qualifying for Free Use of State Lands for Your New Mooring Buoy

Residential owners of "uplands" next to state aquatic lands might qualify for free use of the state lands to install a recreational buoy.

A mooring buoy qualifies for free use if the conditions meet all of these criteria:

- The applicant owns residential property next to state-owned shorelands, tidelands, or related beds of navigable waters (other than harbor areas);
- The moored boat is used for private recreational purposes;
- The moored boat is not more than sixty (60) feet in length;
- The area being used for the buoy is not subject to prior rights;
- The mooring buoy will not obstruct use of previously authorized mooring buoys;
- The mooring buoy is located on state aquatic lands, but as near to the shore of residence as practical; and
- All applicable local, state, and federal rules and regulations have been met.

If your buoy meets these criteria, fill out the mooring buoy/boatlift application at www.dnr.wa.gov. Mail it to DNR's Aquatic District Office in your area, listed here.

Boatlifts on state aquatic lands require the same application. Boatlifts have a yearly fee.

ABOVE PHOTO: LEIGH ESPY / DNR

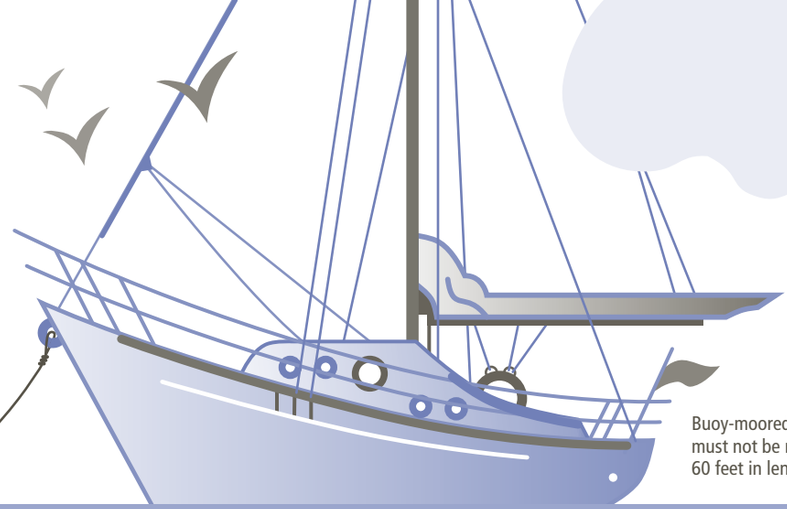
USE REQUIREMENTS

Although residential landowners whose property abuts state aquatic lands may use a recreational mooring buoy for free, they are still responsible for meeting requirements for the installation of the buoy, including:

- **State Registration with DNR**
  Complete an application.
- **City Restrictions**
  If you live within city limits, allowable uses vary. Contact your city's planning office for requirements.

Contact the following agencies to determine if a permit or authorization is required:

- **WA Department of Fish and Wildlife Hydraulic Project Approval**
  (360) 902-2534
- **WA Department of Ecology**
  (360) 407-6400
- **U.S. Army Corps of Engineers (Permit)**
  (206) 764-3495
- **Shoreline Master Program (Permit or Exemption)**
  Requirements differ by county, addressed through your local county planning office.



Buoy-moored boat must not be more than 60 feet in length.

PLEASE NOTE

Private recreational mooring buoys are not authorized for residential (living on the boat) or commercial purposes.

FOR RESIDENTIAL PROPERTY OWNERS

How to Moor Your Boat On State-Owned Aquatic Lands

CHOOSE A MOORING SYSTEM DESIGN

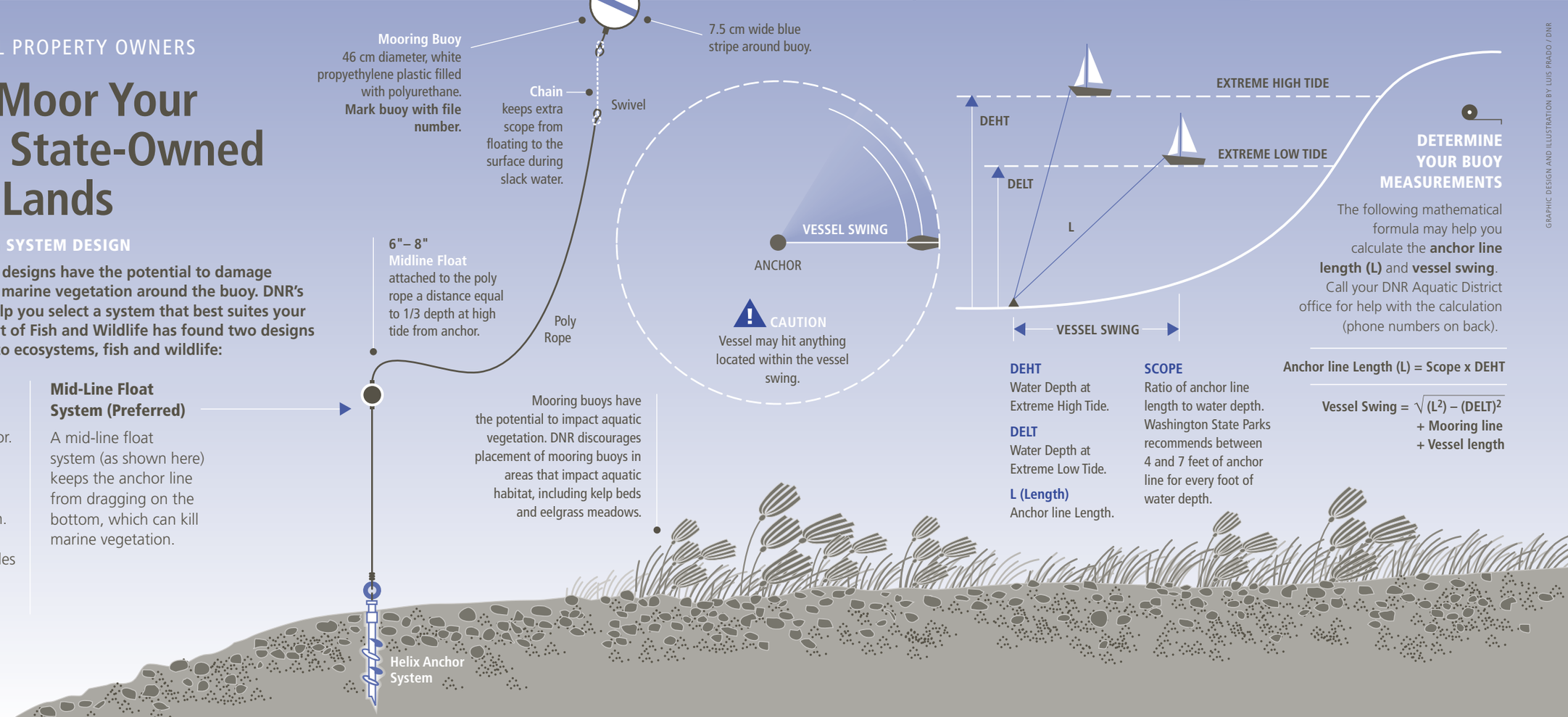
Some mooring system designs have the potential to damage underwater lands and marine vegetation around the buoy. DNR's Land Managers can help you select a system that best suites your area. State Department of Fish and Wildlife has found two designs to be less destructive to ecosystems, fish and wildlife:

All-Rope System

High-strength nylon rope joins buoy to anchor. The rope's buoyancy keeps it from dragging along the bottom and killing marine vegetation. Regular maintenance is required to keep barnacles and mussels from colonizing on the rope and weighing it down to scour the area.

Mid-Line Float System (Preferred)

A mid-line float system (as shown here) keeps the anchor line from dragging on the bottom, which can kill marine vegetation.



DETERMINE YOUR BUOY MEASUREMENTS

The following mathematical formula may help you calculate the **anchor line length (L)** and **vessel swing**. Call your DNR Aquatic District office for help with the calculation (phone numbers on back).

Anchor line Length (L) = Scope x DEHT

Vessel Swing = $\sqrt{(L^2) - (DELT)^2}$ + Mooring line + Vessel length

DEHT
Water Depth at Extreme High Tide.

DELT
Water Depth at Extreme Low Tide.

L (Length)
Anchor line Length.

SCOPE
Ratio of anchor line length to water depth. Washington State Parks recommends between 4 and 7 feet of anchor line for every foot of water depth.

GRAPHIC DESIGN AND ILLUSTRATION BY LUIS PRADO / DNR

Tab C – All Programmatic Projects

Not Used

Tab D – Grant and Loan Programs

Not Used

Tab E – Certificates of Participation (COPs)

Not Used

Tab F – Direct Pay Form

Not Used