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HOOD CANAL COORDINATING COUNCIL

WETLANDS IDENTIFICATION PROJECT CZM 89063

FINAL REPORT 1989

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1989

KITSAP COUNTY DEPARTMENT OF COMMUNITY DEVELOPMENT
614 DIVISION STREET · PORT ORCHARD , WASHINGTON 98366 · (206) 876-7181

QH87.3 W48 1989

ABSTRACT

1. Title: Volunteer Wetlands Inventory Project

2. Author: Hood Canal Coordinating Council and Adopt-A- Beach with Esther Howard, Biologist

3. Subject: Wetland Identification skills

4. Date: June 30, 1989

5. Department: Department of Ecology, Kitsap County Department of Community Development, Mason County Planning Department, Jefferson County Planning Department, Point No Point Tribal Council, Skokomish Tribe, Port Gamble-Clallum Tribe.

6. Copies: Kitsap County Department of Community Development
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Port Orchard, WA 98366

7. Project No. CZM G0089063

8. Series No. 1

9. Pages: 96 pages/with large maps

10. Abstract: This report is a Final report of the Hood Canal Coordinating Council's 1989 Volunteer Wetland Inventory Project. The Council obtained the services of a professional biologist to inventory three wetlands one in each participating County. The wetlands included Shine Creek in Jefferson County, Miller Creek in Kitsap County and a tributary of the Tahuya River in Mason County. The Biologist worked with a citizen organizing group, Adopt-A-Beach to identify, train and utilize volunteers in wetland identification. The biologist and volunteers used the United States Fish and Wildlife Definition of wetlands. The Biologist reviewed all inventoried sites and made final determinations. The report discusses work of the Biologist and volunteers; quality of the work; usefulness of training sessions, field trips; efforts of the volunteers, and makes recommendations for improved use of wetland volunteers in the future. The results of the Mapping and inventory exercise and inventory sheets are included in the appendix.

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VOLUNTEER WETLANDS INVENTORY PROJECT

HOOD CANAL COORDINATING COUNCIL

FINAL REPORT

June 1989

PURPOSE

The purpose of the Volunteer Wetlands Inventory Project was to implement a program of citizen stewardship and public education for inadequately protected or documented wetlands in Hood Canal drainages. The selected drainages were Shine Creek (Jefferson County), Miller Creek (Kitsap County) and Tahuya Creek (Mason County). The project was operational between January 1989 and June 1989. Field work began in April and ended by mid-June.

OBJECTIVES

1. To recruit citizens and train them to visually assess wetland types and functions.

2. To coordinate citizens who will be conducting a wetland baseline survey of undocumented or poorly documented wetlands. The survey results will help classify these wetlands for long term and short term land use decisions.

3. To educate the public and local decision makers on the state of wetlands in the target areas.

PRINCIPALS

Hood Canal Coordinating Council (HCCC): Project sponsor and coordinator, technical support and technical report

Washington State Department of Ecology (Ecology): Project funder, training assistance

Adopt a Beach (AAB): Volunteer recruitment and coordination, public education

REPORT FORMAT

- Work Element
  - Task
    - Task description and evaluation (Note: APPENDIX 1 is the results of the participants survey)
- SUMMARY
- RECOMMENDATIONS

WORK ELEMENT #1
Recruit citizens and train them to visually assess wetland types and functions.

TASK #1: Development of a field methodology in cooperation with the Field Biologist hired by the Hood Canal Coordinating Council.

Esther Howard (HCCC, Field Biologist) and Ken Pritchard (AAB, Volunteer Coordinator) reviewed various field formats in use in Puget Sound Counties and based on Lewis M. Cowardin et al., CLASSIFICATION OF WETLANDS AND DEEPWATER HABITATS OF THE UNITED STATES, Office of Biological Services, Fish and Wildlife Service, 1979. The final format was an adaptation of the Pierce County field forms. The Department of Ecology Wetlands Section (Ecology) approved the HCCC format. The technicality of the form precluded its independent use by volunteers not professionally trained (see APPENDIX 2).

TASK # 2: Recruit five to ten citizens in each of the following areas: Shine Creek, Miller Creek and Tahuya Creek.

1) Outreach

People learned about the project in the following ways:

Solicitation in articles and announcements: Ecology's *Coastal Currents*, Puget Sound Water Quality Authority's *Sound Waves*, Kitsap Audubon's *Kingfisher* and the HCCC newsletter announced the project to their readers. Press releases were sent to the *Bremerton Sun, Kitsap County Herald* and *Port Townsend Penninsula Leader* . An article appeared in the *Bremerton Sun* and may have appeared in the other newspapers.

Meetings: People learned about the program at such meetings as the HCCC Lecture Series (organized by AAB) and at Audubon meetings. Lois Sherwood, Program Director of the HCCC, announced the programs at several meetings.

Mailings and word-of-mouth: Lois Sherwood also provided the names of potential volunteers from various HCCC mailing lists. Local agency staff also helped spread the word about the project.

Most respondents to the evaluation indicated that they had heard about the project through word-of-mouth; next were those who learned about it through presentations. Some respondents indicated that, judging from their friends and neighbors, outreach had been insufficient. The effectiveness of outreach is often a hit-and-miss proposition. One of the best ways to recruit volunteers is through appeals to groups and individuals likely to support a project, thus the announcement at lectures and articles in newsletters. Please refer to the section on outreach in *Recommendations* at the end of this report.

2) Recruitment

Prospective volunteers were sent an information packet . Forty six people expressed initial interest in the project.

Forms were mailed to prospective volunteers to record their interest, background, schedule preference and watershed selection (see APPENDIX 3). Fifteen volunteers returned the forms. Some volunteers who returned the form did not actually participate in field work while others who did never sent back the form.

The number of volunteers assigned to the three drainages were as follows:

- SHINE: 4
- MILLER: 5
- TAHUYA: 9 (Actual participation was somewhat lower)

Note that some volunteers chose to work on two drainages.

3) Volunteer information

a) Reason for volunteering: The project evaluation asked respondents to state their purpose for participating. The three most common responses were: learning about wetlands, personal commitment to protect the environment and usefulness to job or to other volunteer work.

b) Qualifications and experience: At least four volunteers were trained biologists or shoreline planners and were professionally equiped to conduct the surveys. Most of the other volunteers had considerable plant identification or birding background, being local leaders of such groups as the Washington Native Plant Society, the Audubon Society or the Master Gardeners. In this respect their knowledge of local flora and fauna was tremendously useful to the project. Other volunteers indicated that the project provided the field experience to complement their job (e.g. a section head at EPA Region X). Two volunteers with considerable wetlands experience could easily have served as assistant group leaders.

TASK # 3: Train citizens and conduct field trips to the types of marshes they will help inventory and monitor

1) Workshop

Ecology conducted a two-day wetlands inventory Workshop. The workshop was conducted on February at the Tri-Area Community Center in Chimacum and a field trip was held (in the snow) at an intertidal wetland in Discovery Bay. Though the workshop was more geared to county planning staff, volunteers were also invited and seventeen did attend.

While most of the volunteers felt that the content was excellent, many wished that the workshop should have been more directly applicable to the field work. February was also a wrong month for learning about wetlands. However, many respondents praised the workshop leaders for their knowledge and enthusiam.

2) Field Orientation

New volunteers, those who hadn't attended the workshop and those who desired a field refresher, attended one of three field orientations designed to introduce them to the watershed of their choice. Esther Howard led these trips. The schedule was as follows

- Shine Creek (the intertidal wetlands): 4/1/89 (2 volunteers)
- Miller Creek (the wetland on 288th St.): 4/1/89 (4 volunteers)
- Tahuya Creek (Tahuya Lake area): 4/2/89 (7 volunteers)

Some volunteers felt that the field orientation somewhat duplicated what they had learned in the workshop while others wished that they should have served more as a practicum.

3) Supplemental orientation

Two indoor sessions were held for volunteers who were unable to attend the first training. Their purpose was to explain how the field work would be conducted. Esther Howard led these sessions. There schedule was as follows:

- Tri-Area Community Center, Chimacum: 4/4/89
- Timberline Library, Belfair: 4/9/89

The Belfair session was very well attended since half the audience consisted of members of the Hood Canal Land Trust. Again, some volunteers felt that some of the same ground was being revisited (which was precisely the function of these sessions). An unplanned benefit of these sessions was the opportunity to meet among volunteers and fruitful discussions on wetlands preservation in the Hood Canal drainages.

4) Field training

While the workshops and field and indoor orientations were useful in describing to the volunteers the purpose of the project and the type of work they would be doing, the bulk of the learning took place in the field while the volunteers were assisting Esther Howard.

WORK ELEMENT #2
Coordinate citizens who are conducting a wetland baseline survey.

TASK # 1: Develop an assignment schedule based on photo reconnaissance and map surveys

Esther Howard researched the photo and map documentation for all three drainages and interviewed wetland specialists for additional data. The Shine and Miller drainages are small and well defined and did not require an extensive paper inventory. Only the Mason County portion of Tahuya Creek was explored (most of it being intertidal wetlands). Though project plans called for volunteer assistance during the inventory phase, few volunteers participated. This was due to the lack of available training and supervision as

well as to the lack of volunteers able to participate during weekday working hours.

The field schedule included mostly weekend trips when most of the volunteers would be available. Field work was conducted in all three drainages at the same time to eliminate the potential for several weeks of waiting time between the training of volunteers and their assignments.

TASK # 2: Coordinate citizen baseline survey and help evaluate findings with citizens and Field Biologist

Volunteers were first notified of the date of field trips via letters and post cards (usually with a return coupon (see APPENDIX 3). This was followed by phone calls, either to confirm pre-registered volunteers or to solicit greater participation.

A field day usually started at 8 am at a rendez vous spot and ended around 2 or 3 pm. Volunteers assisted in all phases of the inventory, from identifying plants and birds to estimating cover and height or verifying wetland boundaries. All the field trips were supervised by Esther Howard and the volunteers never worked on their own.

The number of scheduled trips were as follows:

- Shine: 5 trips
- Miller: 10 trips
- Tahuya: 6 trips

The actual number of trips was lower on account of cancellations.

1) Evaluation of the field trips

The field trips were the highlight of the volunteer experience with most of the respondents indicating that they learned a lot about wetlands. On the down side, volunteers usually felt that their contribution in the field was somewhat limited. The coordination of the volunteers somewhat suffered in that the project did not operate from a central place. Recruitment was conducted from Seattle (Ken Pritchard, AAB) and Port Townsend (Lois Sherwood), field assignments were conducted from Seattle (Ken Pritchard, AAB) and later from Hoodsport (Donna Simmons, AAB) and the Field Biologist (Esther Howard) operated from her house in Olympia. This resulted in an insufficient number of staff meetings and occasional mixed signals such as unannounced cancelled field trips. One of the most precarious aspect of the project was the absence of back-up personnel in the field.

WORK ELEMENT # 3
Develop a public education component to the wetlands project

TASK #1: Organize and conduct wetland tours for the general public and local decision makers.

Three wetland tours were organized. Elected officials, county and tribal planners, private land managers, real estate brokers and other representatives of the business community and the press were invited. However, the general public was not invited. Project representatives explained the project and volunteers served as field guides. Here is a short description of each trip:

•Tahuya (6/9/89): This trip was organized in conjunction with an HCCC meeting and was attended by members of the Council, Council staff and volunteers.

•Miller (6/27/89): This trip was attended by 15 participants including a Kitsap County Commissioner, a representative from Pope and Talbot Resources, tribal representatives, Kitsap County planners and reporters from the *Bremerton Sun.* (see APPENDIX 4)

•Shine(6/29/89): This trip was attended by 7 participants including a Jefferson County Commissioner, a representative from the Jefferson County Board of Realtors, staff members of the HCCC and volunteers.

Task # 2: Publicize the project in an article for the Hood Canal Coordinating Council and other newsletters

Donna Simmons, on contract with AAB, wrote an article which was also to serve as a press release (see APPENDIX 5). It was published in the HCCC newsletter and given to Ecology's *Coastal Currents* as well as to the Puget Sound Water Quality Authority's newsletter. It was also sent to area newspapers and served as background information for the *Bremerton Sun* story (see above).

Other educational items

1) Slide show presentation

A slide show presentation is currently being assembled in response to the volunteers' desire to discuss this project at community group and club functions. Five volunteers agreed to serve in this capacity.

2) Field Manual

Since no narrative to the field form exists, a field manual is currently being edited to assist volunteers in completing the form. It is to be understood that this field manual is not a substitute for formal training in wetlands inventory. The field information gathered by unsupervised volunteers can only serve as preliminary information which needs professional verification in order to qualify for the formal record.

SUMMARY

How well did the project meet its objectives?

1) Recruit citizens and train them to visually assess wetland types and functions.

The goal of recruiting between 5 and 10 volunteers per drainage was by-and-large met and this was sufficient for the task at hand. Larger drainages and projects lasting more than six months would require a much larger pool of volunteers. However, the optimal number of people characterizing a wetland should not exceed three or four. Three or four groups of volunteers working simultaneously would require as many paid or pro-bono professionals to supervise them.

While the volunteers received an adequate amount of training to work under supervision, it is doubtful that those without anterior or supplemental training could be self-sufficient, even if the result of their field work was informal. The project was simply too short. However, there now exists a pool of volunteers in Jefferson, Kitsap and Mason County who have acquired a basic wetlands literacy. All the respondents to the evaluation who have not moved out of the area indicated that they would continue volunteering if asked. With another six month practicum their knowlegde of wetlands characterization should make them self-sufficient at least for informal wetlands inventory and especially for testifying knowlegeably at hearings.

2) To coordinate citizens who will be conducting a wetland baseline survey of undocumented or poorly documented wetlands.

Shine and Miller Creek wetlands were completely inventoried and the portion of Tahuya Creek to be inventoried was also completed. It is to be seen whether the work of the volunteers did not duplicate previous efforts such as those of the Natural Heritage Program for lower Shine Creek and lower Tahuya Creek. The upper drainage of Shine Creek being on the Pope and Talbot tree farm, the usefulness of an HCCC wetlands inventory is questionable. However, Miller Creek is an excellent example of a drainage threatened by development and an inventory of its wetlands is timely.

The short duration of the project barely puts a dent in the wetlands inventory needs of Hood Canal drainages. In this sense the project succeeds best as a demonstration of the feasibility of a volunteer aided inventory.

3) To educate the public and local decision makers on the state of wetlands in the target areas.

To date, project exposure is limited to the readership of agency newsletters and to the readers of the *Bremerton Sun* article of 6/28/89. The public also learned about the project before it became operational at a number of lectures and presentations. Once the slide show about the project is completed, a number of volunteers (who have agreed to do so) can make short presentations at their clubs or community groups.

Hopefully, if the project is resurected in one form or another, there will be new opportunities to educate the general public.

Local decision makers, and also tribal representatives and local business leaders became acquainted with the project. Thirty percent of those invited to the Miller Creek field trip did attend. Though fewer were invited, the same percentage did attend the Shine Creek field trip.

RATING THE PROJECT

Respondents to the evaluation gave the project the following grades:

	GRADE	RESPONSES
Training and orientation:	B	12
Field trips:	B+	9
Volunteer coordination:	B+	8
Field biologist:	B+	8
Learning experience:	B-	10
Usefulness of volunteers:	B-	8

CONCLUSION

It is remarkable that a project that had so little planning and implementation time and had so few resources and models to draw from nontheless received such high marks from the volunteers and staff associated with it. It is a testimony that the public concern for wetlands protection and the demand for constructive outlets like this project.

The project's success as an information gathering tool was more limited. Its success there lies in its demonstrative quality. The answer is that volunteers, when given enough time and when properly trained and supervised, can effectively assist a local jurisdiction in its inventory ofwetlands. There are some important ingredients to include in such a project; these are treated in *Recommendations* below.

RECOMMENDATIONS

Field Methodology: Demystify the methodology. Wetlands terminology can easily be translated into English when being used as a field tool for volunteers and then back into jargon for the official record.

Recruiting Volunteers:

- High caliber volunteers vs. neophytes: Volunteers with proper professional background or with a commensurate avocation are easily attracted to this type of project. Encourage their participation. But do not overlook less qualified, but equally interested volunteers, especially those residing near wetlands.

- Groom those volunteers with the proper credentials to serve as assistant field leaders and put them in charge of two or three volunteers rather than have them work along the field leader.

•Publicize the project in the respective watersheds and maximize recruiting efforts there.

Training: Two or three sessions do not constitute adequate training. When designing the training, ensure the following:

•The content of the classroom training must be directly applicable to the field work.

•Provide for adequate field practicum time followed by classroom debriefings in order to ease volunteers into the field work. Provide plenty of support material.

•Field practicums are best held in spring and summer.

Field work:

•Include riparian corridors to the survey since they affect the health of wetlands.

•Provide an adequate support system and maintain a close relationship between the volunteer organizers and field staff on one hand, and the end users of the information on the other.

•The project should last a minimum of one year and preferably two before there can be an adequate return on investment.

•Ensure that the volunteer project systematically covers a given geographic area. This will help avoid coverage gaps or taking a hit-and-miss approach to wetlands reconnaissance. Focus on areas most at risk: this is the best way toi develop knowledgeable advocay for thir protection.

Public education:

•Involve decision makers and planners in the field and throughout the duration of the project, not just at the end like a valedictory. The interaction between decision makers and citizens in the field is high productive. Furthermore brief these decision makers about the purpose of the project early in the game.

•Use your volunteers to educate the general public and provide them with resources to back them up.

•Arrange for volunteers to educate decision makers; for instance, encourage them to testify at hearings.

APPENDIX #1
VOLUNTEER EVALUATION

HOW DID YOU LEARN ABOUT THIS PROJECT?
Word-of-mouth: 6, presentations: 4, flyer: 2, newspaper: 1

WHAT MADE YOU DECIDE TO BE A WETLANDS VOLUNTEER?
(Multiple answers)
Personal commitment: 6, personal interest in wetlands: 5, job related or community involvement related: 3, taking the training: 1

ECOLOGY WETLANDS CHARACTERIZATION WORKSHOP
Best aspects:
Format: 4, content: 3, style of presenters: 3, materials: 1, field demonstration: 1

Worst aspects:
Wrong time of year: 2, too much content/wrong content: 2, location: 1, lack of materials, presenters' style was too loose: 1, should have been done on a weekend: 1

ORIENTATION FIELD TRIPS TO THE WATERSHEDS
Best aspects:
Style of presenters: 2, interaction with other volunteers: 2, getting out: 1, hands on aspect: 1

Worst aspects:
Not enough practical information: 3, lack of organization: 1

SUPPLEMENTAL ORIENTATION SESSION
Best aspects:
Meeting the other volunteers: 2, participants' interest in the project: 1, high attendance: 1, practical learning: 1, received good resource information:1

Worst aspects:
Redundancy w/ Ecology workshop: 3, day and time: 1, pressure to sign up for field work: 1,

FIELD TRIPS
Participated: 8
Did not participate: 4

Reasons for not participating:
Timing: 2, lack of advance notification: 1, overcommitment: 1

Best aspects of the field trips:
Learned a lot: 4, teaching/learning interaction with all involved: 4, learning about the project itself: 1, leadership: 1, putting learning into practice: 1,

Worst aspects:
Cancelled trip: 3, not enough practice with map interpretation: 1, , could have covered more territory: 1, weather: 1

RATING THE PROJECT

	GRADE	RESPONSES
Training and orientation:	B	12
Field trips:	B+	9
Volunteer coordination:	B+	8
Field biologist:	B+	8
Learning experience:	B-	10
Usefulness of volunteers:	B-	8

RECOMMENDATIONS FOR THE FUTURE

More field biologists (staff and volunteer): 3, more lead time before actual participation: 2, better outreach: 2, more field training: 2, more map training: 1, more information on wetlands chemistry: 1, shorter field days: 1, more sites to characterize: 1, mix planners and policy makers with volunteers on field trips: 1, recruit less environmentally minded volunteers: 1, Distinguish HCCC/AAB projects so that volunteers clearly know which ones they are involved with: 1, train volunteers as informed watchdogs, not as adjunct technicians: 1, prioritize inventories of Clear Creek, Chico Creek and Blackjack Creek in future projects

CONTINUED INVOLVEMENT WITH THE PROJECT

Plan to continue: 9

Role: Do more field work: 3, advocacy: 1, make it part of job:1, provide technical assistance: 1, provide more training assistance: 1

Do not plan to continue: 3

Reasons: moved: 3

OTHER COMMENTS AND SUGGESTIONS

It was a great idea.

Train some of the volunteers to be proficient in the entire process, from paper inventory to field inventory and field report.

It was a good exchange among the participants.

It was a good learning experience.

We all deserve a pat on the back.

This project should continue, it was a great experience.

The HCCC Lecture Series and the wetlands project complemented each other well.

The public information trip at Miller Creek was a great way to sum-up the project.

Appendix 2

Hood Canal Coordinating Council Wetland Inventory Data Form

	1/4	1/4	1/2	S	T	R
1. Wetland No. MI 1727ZE-1						
1/4 Township No. SW 1/4 of T27, R2E	SE	SE	E	17	27	2E
Wetland Name	—	—	—	—	—	—
Size (Acres)	—	—	—	—	—	—

2. Team Leader Esther Howard
   Team Members Ruth Schaffer
   Date 10 June 1989 Time Begin 1315 Time End 1430
   Access Points
   Landowner Phone
   Parcel No. Weather sunny & warm

3. FWS Wetland Type:

A. System PALUSTRINE
   1. Class
      A-1 Subcl./Dom.
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   2. Class
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   3. Class
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   4. Class
      D-1 Subcl./Dom.
      D-2 Subcl./Dom.
      D-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

B. System RIVERINE
   1. Subsyst./Cl.
      A-1 Subcl./Dom.
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   2. Subsyst./Cl.
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

C. System LACUSTRINE
   1. Subsyst./Cl
      A-1 Subcl./Dom
      A-2 Subcl./Dom
      A-3 Subcl./Dom
      Special Modifier
      Codes Cl%
   2. Class
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   3. Class
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

D. System ESTUARINE
   1. Subsyst./Cl. intertidal/unconsolidated shore
      A-1 Subcl./Dom. mud
      A-2 Subcl./Dom. cobble-gravel
      A-3 Subcl./Dom.
      Special Modifier
      Codes E2US3 Cl% 95
   2. Subsyst./Cl. intertidal/emergent
      B-1 Subcl./Cl. pcwis/Salicornia virginic
      B-2 Subcl./Cl.
      B-3 Subcl./Cl.
      Special Modifier
      Codes E2EM1 Cl% 5
   3. Subsyst./Cl.
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

Wetland ID M117272E-1 Date 10 June 1989

Appendix 2.

Additional Plant Species:	Indicator Status:
Jaumea carnosa	OBL
Enteromorpha sp.	

Soils:

Soil type according to SCS: _____

Hydric? (YES) NO

Soil samples (Munsell Classification) 1.

2.

3.

No samples were necessary, as the soils were intertidal.

Wetland ID M1172726-1 Date 10 June 1989

Hydrology:

	Yes	No	Depth
1. Standing water		✓	
2. Running water		✓	
3. Saturated soils	✓		
4. Tidal influence	✓		

Type Of Outlet:

1. None
2. Overland: constricted unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
4. Pipe: type
   diameter_____ not measured_____
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. Stream or river
6. Storm water drainage pipe
7. Other
8. Unknown

Impoundment Capacity:

1. Flat wetland with impoundment capability (describe)
2. Flat wetland without impoundment capability (describe) drains into Port Townsend Bay
3. Sloped wetland without impoundment capability (describe)

Wetland ID MI17212E-1 Date 10 June 1909

Habitat Features:

		Percent Cover	Number
1.	Snags		
2.	Perches		
3.	Logs		
4.	Rock Outcrops		
5.	Cliffs		
6.	Island		
7.	Other overhanging vegetation		
8.	None		
9.	Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

deer tracks

Wetland ID M117272E-1 Date 10 June 1989

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: filling, clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, garbage, sewage
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. Other

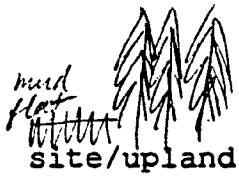
Buffers:

Land use within 200 feet

N upland forest
S open water
E upland forest, residential
W upland forest, residential

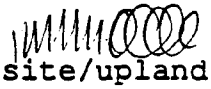
Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

1. 

a. site/upland
b. upland/site
%. 100

2.
a. site/upland
b. upland/site
%. _____

3. 
a. site/upland
b. upland/site
%. _____

Similar:

1.
a. site/upland
%. _____

2.
a. site/upland
%. _____

3.
a. site/upland
%. _____

Wetland ID M117272E-1 Date 10 June 1989

SUMMARY

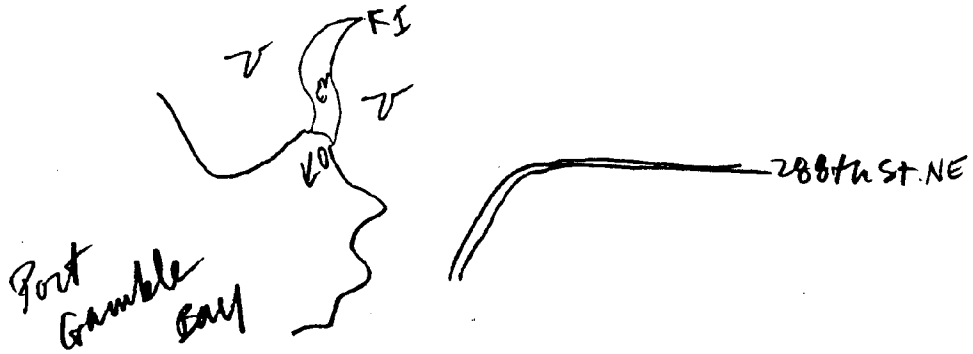
	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?	✓	
4. Is the site a wetland?	✓	

5. Summary paragraph (by EH): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This is a small estuary which is valuable fisheries habitat. It is primarily sloped mud flats with overhanging upland vegetation. It has no function as a biofilter or stormwater detainer, but appears very productive & provides habitat for marine animals and waterfowl.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.
Scale= 1" = 1000' North ↑



Hood Canal Coordinating Council Wetland Inventory Data Form

1. Wetland No. M12127ZE-2 | 1/4 | 1/4 | 1/2 | S | T | R
   1/4 Township No. SW1/4 OF T27N R2E | NW | NW | W | 21 | 27 | 2E
   Wetland Name (includes Miller Lake) | | | | | | |
   Size (Acres) | | | | | | |
2. Team Leader Esther Howard
   Team Members Shane Wilson, Tom Wilson
   Date 13 April 1989 Time Begin 0800 Time End 1145
   Access Points 288th St NE
   Landowner _____ Phone _____
   Parcel No. _____ Weather cloudy cool
3. FWS Wetland Type:

A. System PALUSTRINE
   1. Class scrub-shrub
      A-1 Subcl./Dom. BL decid/Spirea douglasii
      A-2 Subcl./Dom. _____
      A-3 Subcl./Dom. _____
      Special Modifier _____
      Codes PSS1 Cl% 20
   2. Class forested
      B-1 Subcl./Dom. BL decid/Alnus rubra
      B-2 Subcl./Dom. _____
      B-3 Subcl./Dom. _____
      Special Modifier _____
      Codes PFO1 Cl% 50
   3. Class emergent
      C-1 Subcl./Dom. grass/Oenanthe sarmentosa
      C-2 Subcl./Dom. _____
      C-3 Subcl./Dom. _____
      Special Modifier _____
      Codes PEM1 Cl% 10
   4. Class open water
      D-1 Subcl./Dom. _____
      D-2 Subcl./Dom. _____
      D-3 Subcl./Dom. _____
      Special Modifier _____
      Codes POW Cl% 20

B. System RIVERINE
   1. Subsyst./Cl. _____
      A-1 Subcl./Dom. _____
      A-2 Subcl./Dom. _____
      A-3 Subcl./Dom. _____
      Special Modifier _____
      Codes _____ Cl% _____
   2. Subsyst./Cl. _____
      B-1 Subcl./Dom. _____
      B-2 Subcl./Dom. _____
      B-3 Subcl./Dom. _____
      Special Modifier _____
      Codes _____ Cl% _____

C. System LACUSTRINE
   1. Subsyst./Cl _____
      A-1 Subcl./Dom _____
      A-2 Subcl./Dom _____
      A-3 Subcl./Dom _____
      Special Modifier _____
      Codes _____ Cl% _____
   2. Class _____
      B-1 Subcl./Dom. _____
      B-2 Subcl./Dom. _____
      B-3 Subcl./Dom. _____
      Special Modifier _____
      Codes _____ Cl% _____
   3. Class _____
      C-1 Subcl./Dom. _____
      C-2 Subcl./Dom. _____
      C-3 Subcl./Dom. _____
      Special Modifier _____
      Codes _____ Cl% _____

D. System ESTUARINE
   1. Subsyst./Cl. _____
      A-1 Subcl./Dom. _____
      A-2 Subcl./Dom. _____
      A-3 Subcl./Dom. _____
      Special Modifier _____
      Codes _____ Cl% _____
   2. Subsyst./Cl. _____
      B-1 Subcl./Cl. _____
      B-2 Subcl./Cl. _____
      B-3 Subcl./Cl. _____
      Special Modifier _____
      Codes _____ Cl% _____
   3. Subsyst./Cl. _____
      C-1 Subcl./Dom. _____
      C-2 Subcl./Dom. _____
      C-3 Subcl./Dom. _____
      Special Modifier _____
      Codes _____ Cl% _____

Wetland ID M121272E-2 Date 15 April 1989

Additional Plant Species:	Indicator Status:
Thuja plicata	FAC
Acer macrophyllum	FACU
Tsuga heterophylla	FACU
Rubus spectabilis	FAC
Salix spp	FACW
Alnus rubra	FAC
Athyrium filix-femina	FAC
Phalaris arundinacea	FACW
Lysichitum americanum	OBL
Montia cordifolia	—
Urtica dioica	FACT
Lemna minor	OBL
Equisetum sp.	FACW

Soils:

Soil type according to SCS: _____

Hydric? YES NO

Soil samples (Munsell Classification) 1.

2.

3.

No need for samples, the soils were saturated.

Wetland ID M121272E-2 Date 15 April 1989

Hydrology:

	Yes	No	Depth
1. Standing water	✓		
2. Running water		✓	
3. Saturated soils	✓		
4. Tidal influence		✓	

Type Of Outlet:

1. None
2. Overland: constricted unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
(4.) Pipe: type culvert
   diameter_____ not measured ✓
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. Stream or river
6. Storm water drainage pipe
7. Other
(8.) Unknown

Impoundment Capacity:

(1.) Flat wetland with impoundment capability (describe) in a topographic depress

2. Flat wetland without impoundment capability (describe)

3. Sloped wetland without impoundment capability (describe)

Wetland ID MI21272E-2 Date 15 April 1989

Habitat Features:

	Percent Cover	Number
1. Snags		
2. Perches		
3. Logs		
4. Rock Outcrops		
5. Cliffs		
6. Island		
7. Other		
8. None		
9. Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

songbirds, great blue heron

Wetland ID M12/272E-2 Date 15 April 1989

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: filling, clearing, grading, trails, (impoundment, from road) ditching, draining, dredging
2. Pollution: (runoff, from pasture + road) garbage, sewage
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. Other

Buffers:

Land use within 200 feet

N road
S upland forest
E upland forest
W cleared upland, residential, upland forest

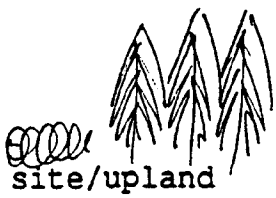
Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

1.

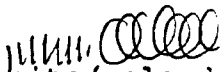
a. site/upland
b. upland/site
%. _____

2.



a. site/upland
b. upland/site
%. 20

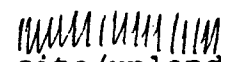
3.



a. site/upland
b. upland/site
%. 5

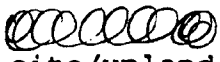
Similar:

1.



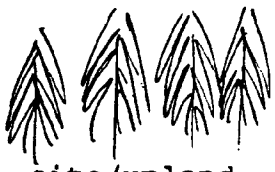
a. site/upland
%. _____

2.



a. site/upland
%. _____

3.



a. site/upland
%. 75

Wetland ID M12172E-2 Date 15 April 1989

SUMMARY

	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?	✓	
4. Is the site a wetland?	✓	

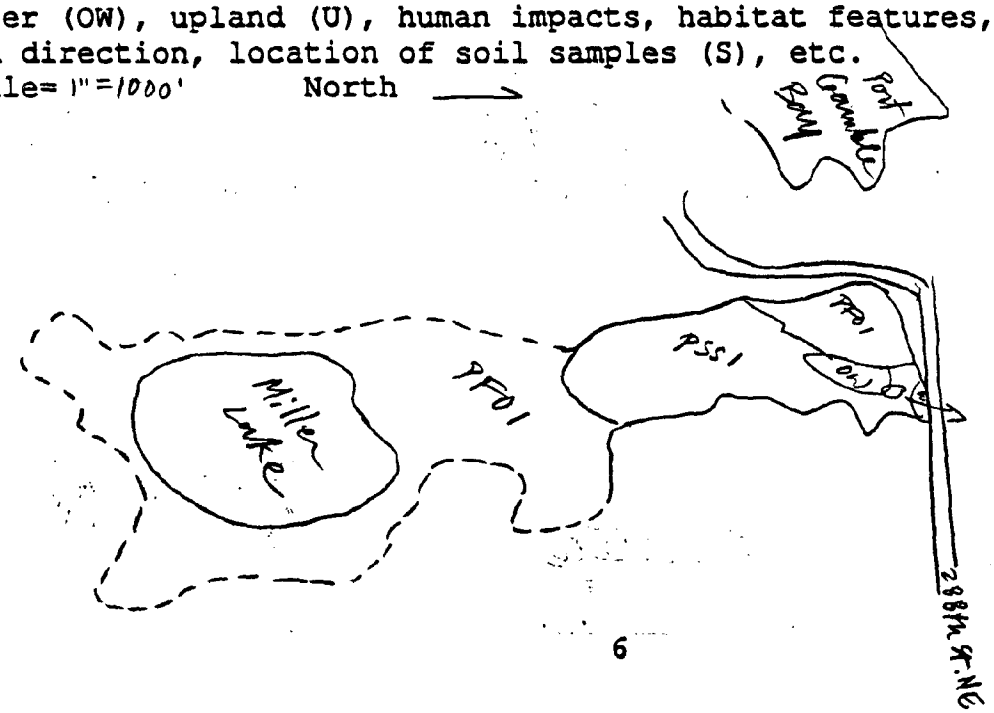
5. Summary paragraph (by EH): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This is a palustrine wetland which includes Miller Lake. We were only able to access the northern portion. It is good habitat, especially for great blue herons. Since its outlet is a culvert and it is topographically lined, it would probably detain stormwater. The predominance of forested vegetation make this a moderate biofilter. It is impacted by roads (impoundment, run-off, noise), and runoff from pasture. It appears to have an old beaver dam in the northern end.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.

Scale= 1"=1000' North →



Hood Canal Coordinating Council Wetland Inventory Data Form

1. Wetland No. M121272E-3 | 1/4 | 1/4 | 1/2 | S | T | R
   1/4 Township No. SW 1/4 of T27N, R2E. | all | SE | E | 21 | 27 | 2E
   Wetland Name | SW+SE | N | E | 21 | 27 | 2E
   Size (Acres)
2. Team Leader Esther Howard
   Team Members Donna Alber, Ruth Schaffer, Catherine Houck
   Date 30 April, 10 June Time Begin N/A Time End N/A
   Access Points Rt. 104, dirt road off of Hansville Rd
   Landowner Phone
   Parcel No. Weather sunny & warm
3. FWS Wetland Type:

A. System PALUSTRINE
   1. Class forested
      A-1 Subcl./Dom. BL Decid/Alnus rubra
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes PFO1 Cl% 75
   2. Class scrub-shrub
      B-1 Subcl./Dom. BL decid/Salix spp.
      B-2 Subcl./Dom. CL decid/Spirea douglasii
      B-3 Subcl./Dom.
      Special Modifier
      Codes PSS1 Cl% 10
   3. Class forested/scrub-shrub
      C-1 Subcl./Dom. BL decid/Alnus rubra
      C-2 Subcl./Dom. CL decid/Rubus spectabilis
      C-3 Subcl./Dom.
      Special Modifier
      Codes P FO/SS 1 Cl% 10
   4. Class emergent
      D-1 Subcl./Dom. persis/Oenanthe sarmentosa
      D-2 Subcl./Dom.
      D-3 Subcl./Dom.
      Special Modifier
      Codes PEM1 Cl% 5

B. System RIVERINE
   1. Subsyst./Cl.
      A-1 Subcl./Dom.
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   2. Subsyst./Cl.
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

C. System LACUSTRINE
   1. Subsyst./Cl
      A-1 Subcl./Dom
      A-2 Subcl./Dom
      A-3 Subcl./Dom
      Special Modifier
      Codes Cl%
   2. Class
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   3. Class
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

D. System ESTUARINE
   1. Subsyst./Cl.
      A-1 Subcl./Dom.
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   2. Subsyst./Cl.
      B-1 Subcl./Cl.
      B-2 Subcl./Cl.
      B-3 Subcl./Cl.
      Special Modifier
      Codes Cl%
   3. Subsyst./Cl.
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

Wetland ID M1212T2E-3 Date 30 April, 10 June

Additional Plant Species:	Indicator Status:
Sambucus racemosa	FACU
Athyrium filix-femina	FAC
Tsuga heterophylla	FACU
Thuja plicata	FAC
Lysichitum americanum	OBL
Tolmiea menziesii	FAC
Rhamnus purshiana	FAC
Picea sitchensis	FAC
Carex sp.	OBL
Urtica dioica	FAC+
Montia cordifolia	—
Tiarella trifoliata	FAC

Soils:

Soil type according to SCS: 37 Norma fine sandy loam

Hydric? (YES) NO

Soil samples (Munsell Classification) 1. 10YR 2/1

2.

3.

Rumex crispus	FACW
Ranunculus repens	FACW
Ribes lacustre	FAC+
Maianthemum dilatatum	FAC+
Typha latifolia	OBL

Wetland ID M1212T2E-3 Date 30 April, 10 June

Hydrology:

	Yes	No	Depth
1. Standing water	✓		
2. Running water		✓	
3. Saturated soils	✓		
4. Tidal influence		✓	

Type Of Outlet:

1. None
2. Overland: constricted unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
4. Pipe: type
   diameter_____ not measured_____
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. Stream or river
6. Storm water drainage pipe culvert
7. Other
8. Unknown

Impoundment Capacity:

1. Flat wetland with impoundment capability (describe) in a topographic depression
2. Flat wetland without impoundment capability (describe)
3. Sloped wetland without impoundment capability (describe)

Wetland ID M121272E-3 Date 30 April, 10 June

Habitat Features:

	Percent Cover	Number
1. Snags		lots
2. Perches		
3. Logs		lots
4. Rock Outcrops		
5. Cliffs		
6. Island		
7. Other		
8. None		
9. Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

songbirds

Wetland ID M121725-3 Date 30 April, 10 June

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: filling, clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, garbage, sewage
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. Other

Buffers:

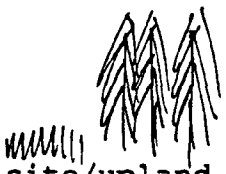
Land use within 200 feet

N upland forest
S road, upland forest
E upland forest
W upland forest

Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

1.

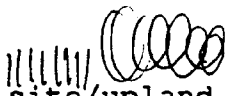


a. site/upland
b. upland/site
%. 10

2.

a. site/upland
b. upland/site
%. 10

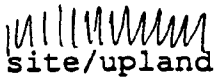
3.



a. site/upland
b. upland/site
%.

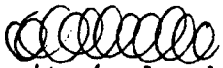
Similar:

1.



a. site/upland
%.

2.



a. site/upland
%.

3.

a. site/upland
%. 80

Wetland ID M12127ZE-3 Date 30 April, 10 June

SUMMARY

	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?	✓	
4. Is the site a wetland?	✓	

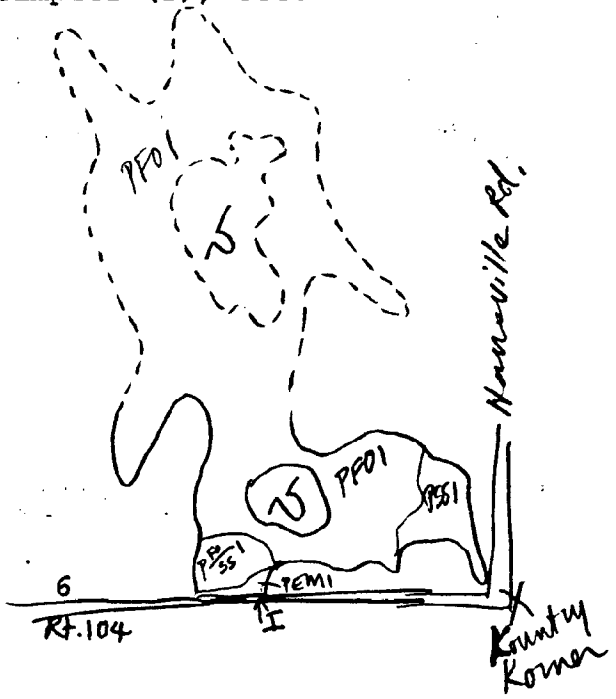
5. Summary paragraph (by EH): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This is a primarily forested wetland dominated by Rhus radicans. It is good habitat for songbirds and probably large animals such as deer. Its detention capacity appears to be minimal, and it is probably a moderate biofilter. Buffers are for the most part good (upland forest).

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.

Scale= 1"=1000' North



Hood Canal Coordinating Council Wetland Inventory Data Form

1. Wetland No. M128272E-4 | 1/4 | 1/4 | 1/2 | S | T | R
   1/4 Township No. SW1/4 OF T.27N., R.2.E | NE | NE | E | 28 | 27 | 2E
   Wetland Name
   Size (Acres)
2. Team Leader Esther Howard
   Team Members Catherine Hauck, Ruth Schaffer
   Date 27 April 1989 Time Begin 0955 Time End 1105
   Access Points RT. 104
   Landowner Phone
   Parcel No. Weather sunny + warm
3. FWS Wetland Type:

A. System PALUSTRINE
   1. Class Scrub-shrub
      A-1 Subcl./Dom. BL decid/Salix spp.
      A-2 Subcl./Dom. BL decid/Spirea douglasii
      A-3 Subcl./Dom.
      Special Modifier
      Codes PSS1 Cl% 97
   2. Class forested
      B-1 Subcl./Dom. BL decid/Salix spp
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes PFO1 Cl% 2
   3. Class emergent
      C-1 Subcl./Dom. [illegible]/Oenanthe sarmentosa
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes PEM1 Cl% 1
   4. Class
      D-1 Subcl./Dom.
      D-2 Subcl./Dom.
      D-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

B. System RIVERINE
   1. Subsyst./Cl.
      A-1 Subcl./Dom.
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   2. Subsyst./Cl.
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

C. System LACUSTRINE
   1. Subsyst./Cl
      A-1 Subcl./Dom
      A-2 Subcl./Dom
      A-3 Subcl./Dom
      Special Modifier
      Codes Cl%
   2. Class
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   3. Class
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

D. System ESTUARINE
   1. Subsyst./Cl.
      A-1 Subcl./Dom.
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   2. Subsyst./Cl.
      B-1 Subcl./Cl.
      B-2 Subcl./Cl.
      B-3 Subcl./Cl.
      Special Modifier
      Codes Cl%
   3. Subsyst./Cl.
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

Wetland ID M1282725-4 Date 29 April 1989

Additional Plant Species:	Indicator Status:
Picea sitchensis	FAC
Rhamnus purshiana	FAC
Rubus spectabilis	FAC
Ulmus alnifolia	FAC+
Juncus effusus	FACW
Carex obnupta	OBL
Phalaris arundinacea	FACW

Soils:

Soil type according to SCS: _____

Hydric? YES NO

Soil samples (Munsell Classification) 1.

2.

3.

We didn't take samples, as the soils were saturated.

Wetland ID M128272E-4 Date 29 April 1984

Hydrology:

	Yes	No	Depth
1. Standing water	✓		~2"
2. Running water		✓	
3. Saturated soils	✓		
4. Tidal influence		✓	

Type Of Outlet:

1. None
2. Overland: constricted unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
4. Pipe: type culvert under Rt. 104
   diameter ~2' not measured_____
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. Stream or river
6. Storm water drainage pipe
7. Other
8. Unknown

Impoundment Capacity:

1. Flat wetland with impoundment capability (describe) in a topographic low area, downstream outlet
2. Flat wetland without impoundment capability (describe)
3. Sloped wetland without impoundment capability (describe)

Wetland ID M128272E-4 Date 29 April 1989

Habitat Features:

		Percent Cover	Number
1.	Snags		~10
2.	Perches		~10
3.	Logs		~19
4.	Rock Outcrops		
5.	Cliffs		
6.	Island		
7.	Other		
8.	None		
9.	Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

Wetland ID M128272E-4 Date 29 April 1984

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: filling, clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, garbage, sewage from road
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. Other road noise, garbage, runoff, fill

Buffers:

Land use within 200 feet

N road, wetland
S upland forest
E upland forest, cleared upland
W upland forest

Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

1.

a. site/upland
b. upland/site
%. _____

2.

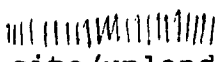
a. site/upland
b. upland/site
%. 80

3.

a. site/upland
b. upland/site
%. 20

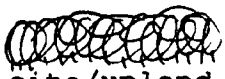
Similar:

1.



a. site/upland
%. _____

2.



a. site/upland
%. _____

3.

a. site/upland
%. _____

Wetland ID M128272E-4 Date 29 April 1989

SUMMARY

	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?	✓	
4. Is the site a wetland?	✓	

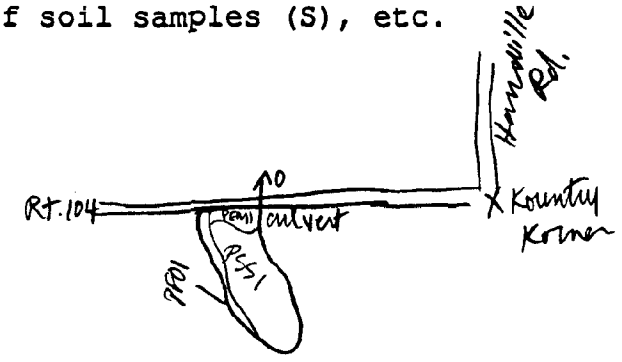
5. Summary paragraph (by EH): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This wetland is dominated by scrub-shrubs Salix and Spiraea. It is good habitat for songbirds. Its outlet (a culvert) is dammable and it is topographically defined, so would probably detain a small volume of stormwater. Scrub-shrub vegetation functions as a slow biofilter, but stores impurities over long periods of time.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.

Scale= North



Hood Canal Coordinating Council Wetland Inventory Data Form

	1/4	1/4	1/2	S	T	R
1. Wetland No. SH 33281E-1						
1/4 Township No. SW1/4 OF T.28N, R1E	SW	SW	W	33	28	1E
Wetland Name N/A	SE	SE	E	32	28	1E
Size (Acres)	NW	NW	W	4	27	1E

2. Team Leader Esther Howard
Team Members John Neal, Lois Sherwood, D.J. Johnson, Kurt Klingman
Date 12 April 1989 Time Begin 0800 Time End 1230
Access Points S. Point Rd, Shine Rd.
Landowner _____ Phone _____
Parcel No. _____ Weather partly cloudy, cool

3. FWS Wetland Type:

A. System PALUSTRINE
1. Class Scrub-Shrub
A-1 Subcl./Dom. BL decid/Salix spp.
A-2 Subcl./Dom. BL decid/Rubus spectabilis
A-3 Subcl./Dom. _____
Special Modifier _____
Codes PSS1 Cl% 10
2. Class forested
B-1 Subcl./Dom. EL decid/Alnus rubra
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier d,h
Codes PFO1 Cl% 15
3. Class emergent
C-1 Subcl./Dom. grass/Deschampsia cespitosa
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier d,h
Codes PEM1 Cl% 10
4. Class _____
D-1 Subcl./Dom. _____
D-2 Subcl./Dom. _____
D-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

B. System RIVERINE
1. Subsyst./Cl. _____
A-1 Subcl./Dom. _____
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
2. Subsyst./Cl. _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

C. System LACUSTRINE
1. Subsyst./Cl. _____
A-1 Subcl./Dom _____
A-2 Subcl./Dom _____
A-3 Subcl./Dom _____
Special Modifier _____
Codes _____ Cl% _____
2. Class _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
3. Class _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

D. System ESTUARINE
1. Subsyst./Cl. intertidal/emergent
A-1 Subcl./Dom. grass/Scirpus olneyi
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes E2EM1 Cl% 20
2. Subsyst./Cl. intertidal/unconsolidated
B-1 Subcl./Cl. _____
B-2 Subcl./Cl. _____
B-3 Subcl./Cl. _____
Special Modifier _____
Codes _____ Cl% _____
3. Subsyst./Cl. _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

Wetland ID SH3328IE-1 Date 12 April 1989

Additional Plant Species:

~~Indicator Status:~~

Potentilla pacificum
Urtica dioica (FAC)
Typha latifolia (OBL)
Juncus spp. (FACW)
Triglochin maritimum (OBL)
Distichlis spicata (FACW)
Plantago maritima (FACW)
Salicornia virginica (OBL)
Sambucus racemosa (FACW)
Lysichitum americanum (OBL)
Ribes spp. (FAC)
Montia cordifolia
Athyrium filix-femina (FAC)
Rorippa nasturtium-aquaticum (OBL)
Picea sitchensis (FAC)
Rosa sp.
Spirea douglasii (FACW)
Pyrus fusca

Soils:

Soil type according to SCS: _____

Hydric? YES NO

Soil samples (Munsell Classification) 1.

2.

3.

soil samples were not necessary. The soils were saturated

Wetland ID SH 33201E-1 Date 12 April 1989

Hydrology:

	Yes	No	Depth
1. Standing water	✓		~2-6"
2. Running water	✓		
3. Saturated soils	✓		surface
4. Tidal influence	✓		

Type Of Outlet:

1. None
2. Overland: (constricted) unconstricted — Shine Creek
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
4. Pipe: type
   diameter_____ not measured_____
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. (Stream) or river — Shine Creek
6. Storm water drainage pipe
7. Other
8. Unknown

Impoundment Capacity:

1. Flat wetland with impoundment capability (describe)
2. (Flat wetland without impoundment capability (describe) — drains into Squamish Harbor
3. Sloped wetland without impoundment capability (describe)

Wetland ID SH 332B1E-1 Date 12 April 1989

Habitat Features:

	Percent Cover	Number
1. Snags	~1%	
2. Perches		
3. Logs	~1%	
4. Rock Outcrops		
5. Cliffs		
6. Island		
7. Other		
8. None		
9. Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

squirrel, songbirds, great blue heron

Wetland ID SA 332E-1 Date 12 April 1989

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: filling, clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, garbage, sewage, noise
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. Other

Buffers:

Land use within 200 feet

N road, residential
S Squamish Harbor
E residential, upland forest,
W road, upland forest

Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

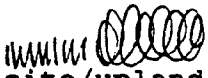
1.

a. site/upland 30%
b. upland/site 10%
%. _____

2.

a. site/upland
b. upland/site
%. _____

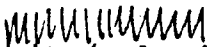
3.



a. site/upland
b. upland/site
%. _____

Similar:

1.



a. site/upland
%. 40

2.

a. site/upland
%. _____

3.

a. site/upland
%. 20

Wetland ID SH 33281E-1 Date 12 April 1989

SUMMARY

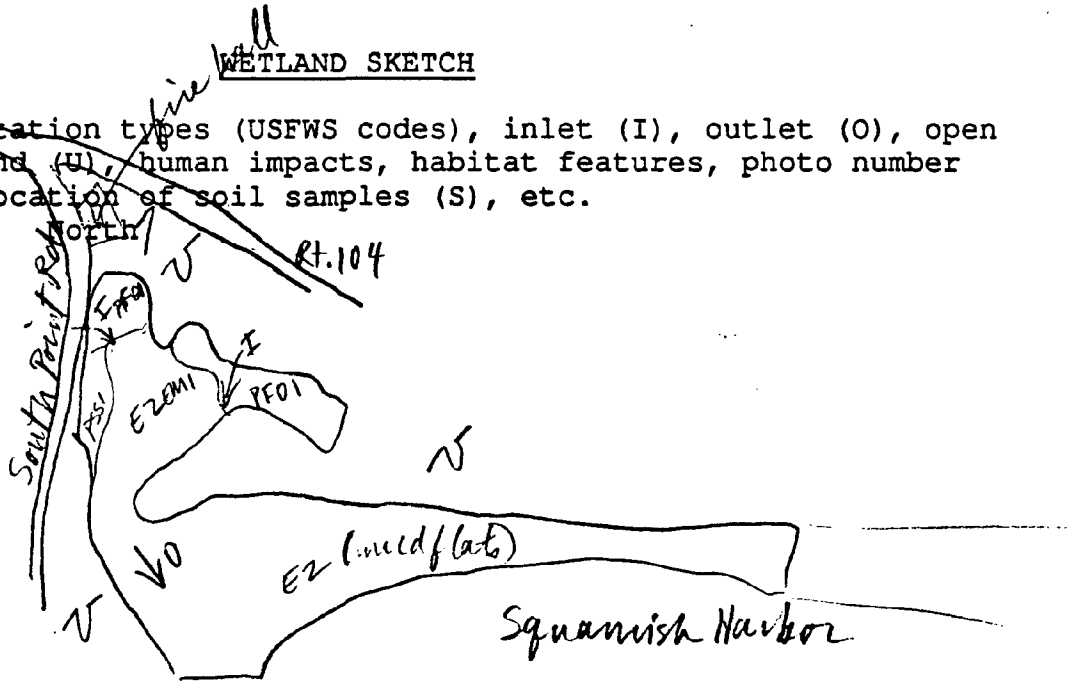
	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?	✓	
4. Is the site a wetland?	✓	

5. Summary paragraph (by EH.): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This is an estuarine and palustrine wetland at the mouth of Stump Creek. It has a diversity of plant species and vegetation types. The natural diversity and access to salt water make it good habitat for wildlife, although it is accessible to humans. In terms of wildlife, this wetland appears to trap sediment that would otherwise go to Squamish Harbor. It has little or no retention capacity. Areas of it have been filled, diked, tiled, and cultivated. It is subject to noise and runoff from roads.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.
Scale= 1" = 1000'



Hood Canal Coordinating Council Wetland Inventory Data Form

	1/4	1/4	1/2	S	T	R
1. Wetland No. SH32281E-2	SE	SE	E	32	28	1E
1/4 Township No. SW1/4 OF T.28N., R.1E	NE	NE	E	5	27	1E
Wetland Name						
Size (Acres)						

2. Team Leader Esther Howard
Team Members Craig Wester, Mike McClure.
Date 21 April, 13 May 1989 Time Begin N/A Time End N/A
Access Points Rt. 104, South Point Rd.
Landowner _____ Phone _____
Parcel No. _____ Weather sunny

3. FWS Wetland Type:

A. System PALUSTRINE
1. Class forested
A-1 Subcl./Dom. BL Decid/Alnus rubra
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes PFO1 Cl% 10
2. Class forested/scrub-shrub
B-1 Subcl./Dom. BL decid/Alnus rubra
B-2 Subcl./Dom. BL decid/Spirea douglasii
B-3 Subcl./Dom. _____
Special Modifier _____
Codes PSS1 Cl% 5
3. Class emergent
C-1 Subcl./Dom. persis/Deschampsia caespitosa
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes PEM1 Cl% 10
4. Class scrub-shrub
D-1 Subcl./Dom. BL decid/Spirea douglasii
D-2 Subcl./Dom. _____
D-3 Subcl./Dom. _____
Special Modifier _____
Codes PSS1 Cl% 15

B. System RIVERINE
1. Subsyst./Cl. _____
A-1 Subcl./Dom. _____
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
2. Subsyst./Cl. _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

C. System LACUSTRINE
1. Subsyst./Cl _____
A-1 Subcl./Dom _____
A-2 Subcl./Dom _____
A-3 Subcl./Dom _____
Special Modifier _____
Codes _____ Cl% _____
2. Class _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
3. Class _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

D. System ESTUARINE
1. Subsyst./Cl. intertidal/emergent
A-1 Subcl./Dom. persis/Scirpus acutus
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes E2EM1 Cl% 60
2. Subsyst./Cl. _____
B-1 Subcl./Cl. _____
B-2 Subcl./Cl. _____
B-3 Subcl./Cl. _____
Special Modifier _____
Codes _____ Cl% _____
3. Subsyst./Cl. _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

Wetland ID SH322815-2 Date 21 April, 13 May 1989

Additional Plant Species:	Indicator Status:
Typha latifolia	OBL
Carex lyngbyei	OBL
Juncus spp.	OBL, FACW
Triglochin maritimum	OBL
Distichlis spicata	FACW
Potentilla pacifica	
Picea sitchensis	FAC
Pyrus fusca	
Lysichitum americanum	OBL
Athyrium filix-femina	FAC
Viola langsdorfii	FACW
Maianthemum dilatatum	FACW

Soils:

Soil type according to SCS: _____

Hydric? YES NO

Soil samples (Munsell Classification) 1.

2.

3.

Soil samples not necessary; soils saturated.

Lonicera sp.	FAC
Ribes lacustre	FAC
Nuphar polysepalum	OBL
Phalaris arundinacea	FACW
Equisetum sp.	FAC

Wetland ID SH32281E-2 Date 21 April, 13 May 1989

Hydrology:

	Yes	No	Depth
1. Standing water		✓	
2. Running water	✓		
3. Saturated soils	✓		
4. Tidal influence	✓		

Type Of Outlet:

1. None
2. Overland: constricted unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
(4.) Pipe: type culvert
   diameter ~4' not measured_____
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
(5.) Stream or river Skina Creek
6. Storm water drainage pipe
7. Other
8. Unknown

Impoundment Capacity:

(1.) Flat wetland with impoundment capability (describe) in a topographic depression

2. Flat wetland without impoundment capability (describe)

3. Sloped wetland without impoundment capability (describe)

Wetland ID SH322BIE-2 Date 21 April, 13 May 1989

Habitat Features:

		Percent Cover	Number
1.	Snags		
2.	Perches		
3.	Logs		
4.	Rock Outcrops		
5.	Cliffs		
6.	Island		
7.	Other Upland hummocks (salal)		
8.	None		
9.	Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

mallards

Wetland ID SH 3228 1E-2 Date 21 April, 13 May 1989

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: filling, clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, garbage, sewage
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. Other hunting

Buffers:

Land use within 200 feet

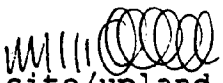
N upland forest
S upland forest
E road, cleared upland
W clearcut, upland forest

Which of the following best represents the difference in height between the wetland and the surrounding upland?

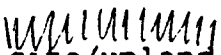
Different:

1.
a. site/upland
b. upland/site
%. _____

2.
a. site/upland
b. upland/site
%. _____

3. 
a. site/upland
b. upland/site
%. _____

Similar:

1. 
a. site/upland
%. 40

2.
a. site/upland
%. _____

3.
a. site/upland
%. 60

Wetland ID SH3228IE-2 Date 21 April, 13 May 1989

SUMMARY

	YES	NO
1. Wetland vegetation dominant?	√	
2. Wetland hydrology present?	√	
3. Hydric soils present?	√	
4. Is the site a wetland?	√	

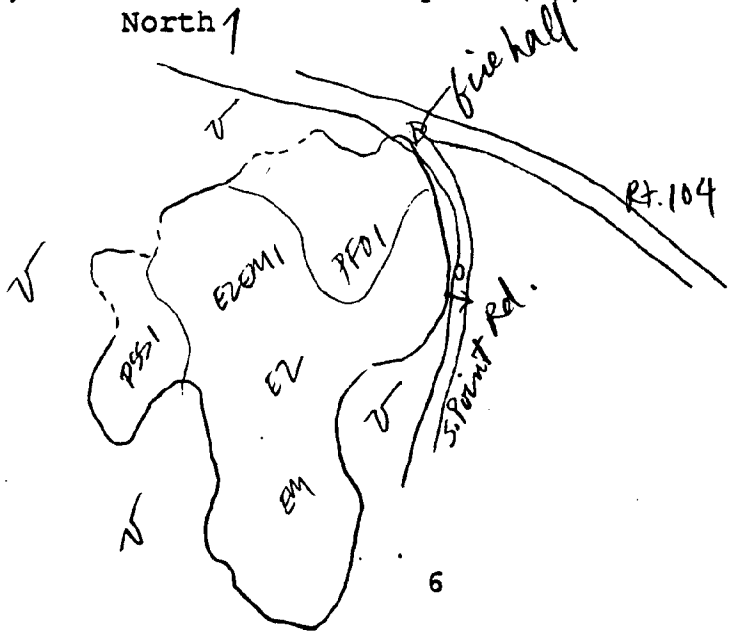
5. Summary paragraph (by EH.): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This is a beautiful estuary with a diversity of vegetation types and species. Functions as excellent wildlife habitat, and is probably a good filter. Due to a damnable outlet, this wetland may function as an inadequate stormwater detainer. The buffers are for the most part good, although South Point Rd. goes along the eastern edge, and east to the west have been clear-cut to the edge. It receives runoff from the roads and sediment from clear-cut upland areas. We found evidence of hunting.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.

Scale= 1" = 1000' North ↑



Hood Canal Coordinating Council Wetland Inventory Data Form

	1/4	1/4	1/2	S	T	R
1. Wetland No. SH32281E-3						
1/4 Township No. SW 1/4 of T28N, R1E	all	NW	W	32	28	1E
Wetland Name						
Size (Acres)						

2. Team Leader Esther Howard
Team Members Ken Pritchard
Date 12 May 1989 Time Begin 0900 Time End 1100
Access Points logging road off of Rt. 104
Landowner _____ Phone _____
Parcel No. _____ Weather sunny + warm

3. FWS Wetland Type:

A. System PALUSTRINE
1. Class emergent
A-1 Subcl./Dom. Persis/Juncus effusus
A-2 Subcl./Dom. persis/Carex obnupta
A-3 Subcl./Dom. _____
Special Modifier b,h
Codes PEM1 Cl% 40
2. Class scrub-shrub
B-1 Subcl./Dom. EL decid/Rubus spectabilis
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier b,h
Codes PSS1 Cl% 30
3. Class forested
C-1 Subcl./Dom. EL decid/Alnus rubra
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier b,h
Codes PFO1 Cl% 10
4. Class open water
D-1 Subcl./Dom. _____
D-2 Subcl./Dom. _____
D-3 Subcl./Dom. _____
Special Modifier b,h
Codes POW Cl% 20

B. System RIVERINE
1. Subsyst./Cl. _____
A-1 Subcl./Dom. _____
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
2. Subsyst./Cl. _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

C. System LACUSTRINE
1. Subsyst./Cl _____
A-1 Subcl./Dom _____
A-2 Subcl./Dom _____
A-3 Subcl./Dom _____
Special Modifier _____
Codes _____ Cl% _____
2. Class _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
3. Class _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

D. System ESTUARINE
1. Subsyst./Cl. _____
A-1 Subcl./Dom. _____
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
2. Subsyst./Cl. _____
B-1 Subcl./Cl. _____
B-2 Subcl./Cl. _____
B-3 Subcl./Cl. _____
Special Modifier _____
Codes _____ Cl% _____
3. Subsyst./Cl. _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

Wetland ID SH322B1E-3 Date 12 May 1989

Additional Plant Species:	Indicator Status:
Typha latifolia	OBL
Oenanthe sarmentosa	OBL
Mentha sp.	—
Montia cordifolia	—
Viola langsdorfii	FACW
Lysichitum americanum	OBL
Lemna minor	OBL
Iris pseudacorus	OBL
Potamogeton sp.	OBL
Sparganium sp.	OBL
Bidens cernua	FACW+
Thuja plicata	FAC
Ribes lacustre	FAC+

Soils:

Soil type according to SCS: _____

Hydric? (YES) NO

Soil samples (Munsell Classification) 1. 7.5YR 3/2

saturated 2. 5Y 5/1

3.

Equisetum sp. —

Polygonum spp. —

Potentilla palustris OBL

Salix spp. FACW?

Wetland ID 5N32281E-3 Date 12 May 1989

Hydrology:

	Yes	No	Depth
1. Standing water	✓		
2. Running water		✓	
3. Saturated soils	✓		
4. Tidal influence		✓	

Type Of Outlet:

1. None
2. Overland: constricted unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
4. Pipe: type
   diameter_____ not measured_____
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. Stream or river
6. Storm water drainage pipe
7. Other beaver dam
8. Unknown

Impoundment Capacity:

1. Flat wetland with impoundment capability (describe) in a topographic depression, beaver dam
2. Flat wetland without impoundment capability (describe)
3. Sloped wetland without impoundment capability (describe)

Wetland ID SH32281E-3 Date 12 May 1989

Habitat Features:

		Percent Cover	Number
1.	Snags	3	
2.	Perches		
3.	Logs	3	
4.	Rock Outcrops		
5.	Cliffs		
6.	Island		
7.	Other beaver dam		
8.	None		
9.	Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

red wing blackbirds, otter scat, deer tracks, beaver dam

Wetland ID SH322B1E-3 Date 12 May 1989

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: filling, clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, garbage, sewage
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation (from clear cut), erosion, flooding
5. Other

Buffers:

Land use within 200 feet

N wetland, clear cut
S road, upland forest
E upland forest
W clear cut

Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

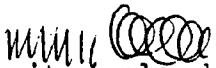
1.

a. site/upland
b. upland/site
%. _____

2.

a. site/upland
b. upland/site
%. 35

3.



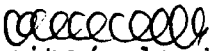
a. site/upland
b. upland/site
%. _____

Similar:

1.

(a) site/upland
%. 25

2.



a. site/upland
%. _____

3.

a. site/upland
%. 40

Wetland ID SH 32281E-3 Date 12 May 1989

SUMMARY

	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?	✓	
4. Is the site a wetland?	✓	

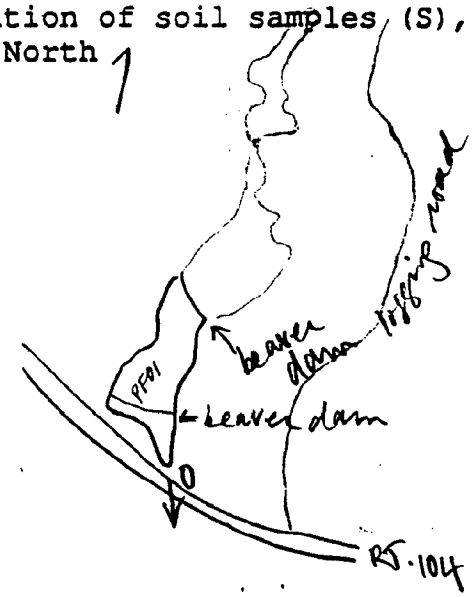
5. Summary paragraph (by EH): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This wetland was created by a beaver dam (which appears to have been recently maintained). It is dominated by scrub-shrub and emergent vegetation, and would make an excellent biofilter. It probably can impound more water in storm conditions. Buffers are poor to moderate; there has been clear-cutting to the wetland edge. The wetland receives sediment and other runoff from clear-cut upland areas, and garbage from hunters & people who fish in the wetland. It is a beautiful site & is worth preserving for its value as habitat.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.

Scale= 1" = 1000' North



Hood Canal Coordinating Council Wetland Inventory Data Form

1. Wetland No. SH 32281E-4 | 1/4 | 1/4 | 1/2 | S | T | R
   1/4 Township No. SW1/4 of T28N, R1E | NE | NW | W | 32 | 28 | 1E
   Wetland Name
   Size (Acres)
2. Team Leader Esther Howard
   Team Members Ken Prichard
   Date 12 May 1989 Time Begin 1208 Time End 1305
   Access Points logging roads off of Rt. 104
   Landowner Phone
   Parcel No. Weather sunny + warm
3. FWS Wetland Type:

A. System PALUSTRINE
   1. Class open water
      A-1 Subcl./Dom.
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier b,h
      Codes POW Cl% 75
   2. Class emergent
      B-1 Subcl./Dom. persis/Typha latifolia
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes PEM1 Cl% 10
   3. Class scrub-shrub
      C-1 Subcl./Dom. NLeverg/Thuja plicata
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes PSS4 Cl% 5
   4. Class forested
      D-1 Subcl./Dom. Bl decid/Alnus rubra
      D-2 Subcl./Dom.
      D-3 Subcl./Dom.
      Special Modifier
      Codes PFO1 Cl% 10

B. System RIVERINE
   1. Subsyst./Cl.
      A-1 Subcl./Dom.
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   2. Subsyst./Cl.
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

C. System LACUSTRINE
   1. Subsyst./Cl
      A-1 Subcl./Dom
      A-2 Subcl./Dom
      A-3 Subcl./Dom
      Special Modifier
      Codes Cl%
   2. Class
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   3. Class
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

D. System ESTUARINE
   1. Subsyst./Cl.
      A-1 Subcl./Dom.
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   2. Subsyst./Cl.
      B-1 Subcl./Cl.
      B-2 Subcl./Cl.
      B-3 Subcl./Cl.
      Special Modifier
      Codes Cl%
   3. Subsyst./Cl.
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

Wetland ID SH 32281E-4 Date 12 May 1989

Additional Plant Species:	Indicator Status:
Thuja plicata	FAC
Sambucus racemosa	FACU
Rhamnus purshiana	FAC
Lemna minor	OBL
Juncus effusus	FACW+
Ranunculus repens	FACW
Solanum dulcamara	FAC

Soils:

Soil type according to SCS: _____

Hydric? (YES) NO

Soil samples (Munsell Classification) 1.

2.

3.

no samples were necessary, as the soils were saturated.

Wetland ID 31 322.81E-4 Date 12 May 1989

Hydrology:

	Yes	No	Depth
1. Standing water	✓		~ 1½'
2. Running water		✓	
3. Saturated soils	✓		
4. Tidal influence		✓	

Type Of Outlet:

1. None
2. Overland: constricted unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
4. Pipe: type
   diameter_____ not measured_____
5. Other beaver dam
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. Stream or river Shine Creek
6. Storm water drainage pipe
7. Other
8. Unknown

Impoundment Capacity:

1. Flat wetland with impoundment capability (describe) in topographic depression, beaver dam
2. Flat wetland without impoundment capability (describe)
3. Sloped wetland without impoundment capability (describe)

Wetland ID SH322B1E-4 Date 12 May 1989

Habitat Features:

	Percent Cover	Number
1. Snags	3	
2. Perches	2	
3. Logs	1	
4. Rock Outcrops		
5. Cliffs		
6. Island		
7. Other		
8. None		
9. Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

beaver dam

Wetland ID SH 3228 1E-4 Date 12 May 1989

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: filling, clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, (garbage), sewage
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. (Other) trails

Buffers:

Land use within 200 feet

N clear-cut, upland forest
S wetland, upland forest
E upland forest, clear cut
W upland forest, clear cut

Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

1.

a. site/upland
b. upland/site
%. _____

2.

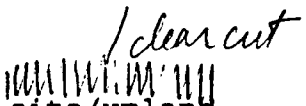
a. site/upland
b. upland/site
%. 25

3.

a. site/upland
b. upland/site
%. _____

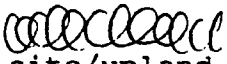
Similar:

1.



a. site/upland
%. 45

2.



a. site/upland
%. _____

3.

a. site/upland
%. 30

Wetland ID SH 322B1E-4 Date 12 May 1989

SUMMARY

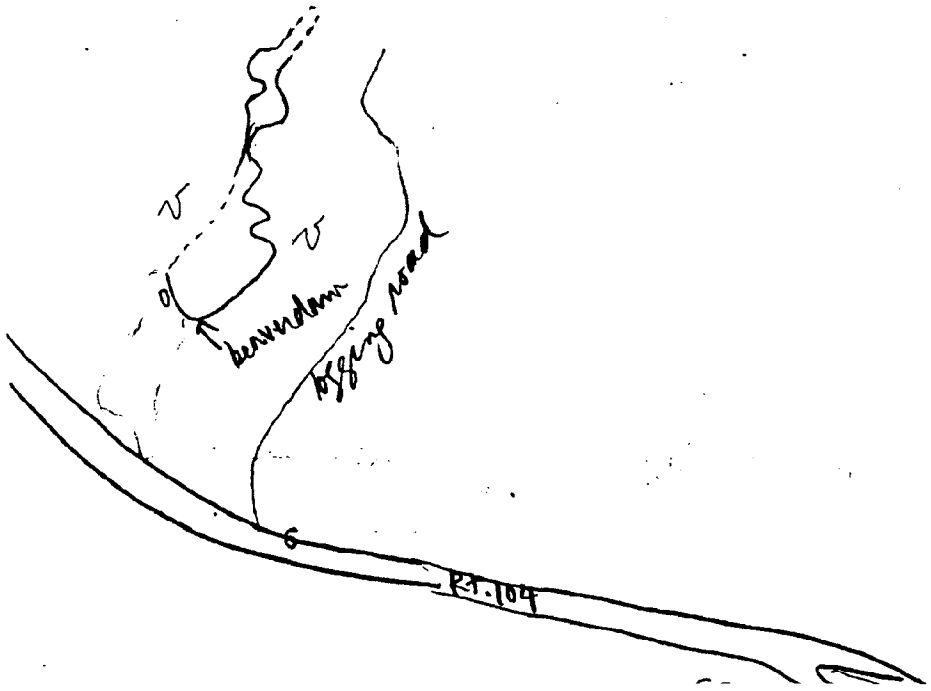
	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?	✓	
4. Is the site a wetland?	✓	

5. Summary paragraph (by BH): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This wetland was created by a beaver dam. It provides excellent habitat for wildlife, although buffers are poor (due to clear-cuts). It would serve as a moderate biofilter. Sediment from clear-cut upland areas impacts this wetland, as does garbage.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.
Scale= North



Hood Canal Coordinating Council Wetland Inventory Data Form

1. Wetland No. TA2722 3W-1 | 1/4 | 1/4 | 1/2 | S | T | R
   1/4 Township No. SE 1/4 of T. 22 N, R 3W | NE+NW | NW | W | 27 | 22 | 3W
   Wetland Name | NW | SW | W | 27 | 22 | 3W
   Size (Acres) | SW | SE | E | 22 | 22 | 3W
2. Team Leader Esther Howard
   Team Members Donna Aiken
   Date 5 May 1989 Time Begin 0835 Time End 1040
   Access Points Rt. 300 bridge, NE Brook Place
   Landowner ____ Phone ____
   Parcel No. ____ Weather sunny & cool
3. FWS Wetland Type:

A. System PALUSTRINE
   1. Class ____
      A-1 Subcl./Dom. ____
      A-2 Subcl./Dom. ____
      A-3 Subcl./Dom. ____
      Special Modifier ____
      Codes ____ Cl% ____
   2. Class ____
      B-1 Subcl./Dom. ____
      B-2 Subcl./Dom. ____
      B-3 Subcl./Dom. ____
      Special Modifier ____
      Codes ____ Cl% ____
   3. Class ____
      C-1 Subcl./Dom. ____
      C-2 Subcl./Dom. ____
      C-3 Subcl./Dom. ____
      Special Modifier ____
      Codes ____ Cl% ____
   4. Class ____
      D-1 Subcl./Dom. ____
      D-2 Subcl./Dom. ____
      D-3 Subcl./Dom. ____
      Special Modifier ____
      Codes ____ Cl% ____

B. System RIVERINE
   1. Subsyst./Cl. ____
      A-1 Subcl./Dom. ____
      A-2 Subcl./Dom. ____
      A-3 Subcl./Dom. ____
      Special Modifier ____
      Codes ____ Cl% ____
   2. Subsyst./Cl. ____
      B-1 Subcl./Dom. ____
      B-2 Subcl./Dom. ____
      B-3 Subcl./Dom. ____
      Special Modifier ____
      Codes ____ Cl% ____

C. System LACUSTRINE
   1. Subsyst./Cl ____
      A-1 Subcl./Dom ____
      A-2 Subcl./Dom ____
      A-3 Subcl./Dom ____
      Special Modifier ____
      Codes ____ Cl% ____
   2. Class ____
      B-1 Subcl./Dom. ____
      B-2 Subcl./Dom. ____
      B-3 Subcl./Dom. ____
      Special Modifier ____
      Codes ____ Cl% ____
   3. Class ____
      C-1 Subcl./Dom. ____
      C-2 Subcl./Dom. ____
      C-3 Subcl./Dom. ____
      Special Modifier ____
      Codes ____ Cl% ____

D. System ESTUARINE
   1. Subsyst./Cl. intertidal/emergent
      A-1 Subcl./Dom. grass/Scirpus maritimus
      A-2 Subcl./Dom. ____
      A-3 Subcl./Dom. ____
      Special Modifier ____
      Codes EZEM1 Cl% 20
   2. Subsyst./Cl. intertidal/unconsolidated shore
      B-1 Subcl./Cl. mud
      B-2 Subcl./Cl. sand
      B-3 Subcl./Cl. ____
      Special Modifier ____
      Codes E2US3 Cl% 80
   3. Subsyst./Cl. ____
      C-1 Subcl./Dom. ____
      C-2 Subcl./Dom. ____
      C-3 Subcl./Dom. ____
      Special Modifier ____
      Codes ____ Cl% ____

Wetland ID TA27223W-1 Date 5 May 1989

Additional Plant Species:	Indicator Status:
Salicornia virginica	OBL
Glaux maritima	FACW+
Plantago maritima	FACW+
Triglochin maritimum	OBL
Juncus sp.	—
Carex lyngbyei	OBL
Distichlis spicata	FACW
Potentilla pacifica	—
Grindelia integrifolia	FACW
Ulva spp.	OBL
Enteromorpha sp.	OBL
Fucus sp.	OBL
Zostera marina	OBL

Soils:

Soil type according to SCS: _____

Hydric? YES NO

Soil samples (Munsell Classification) 1.

2.

3.

No samples; soils were saturated + intertidal

Wetland ID TA27z234)-1 Date 5 May 1989

Hydrology:

	Yes	No	Depth
1. Standing water		✓	
2. Running water	✓		
3. Saturated soils	✓		
4. Tidal influence	✓		

Type Of Outlet:

1. None
2. Overland: constricted unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
4. Pipe: type
   diameter_____ not measured_____
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. Stream or river Tahuya
6. Storm water drainage pipe
7. Other
8. Unknown

Impoundment Capacity:

1. Flat wetland with impoundment capability (describe)
2. Flat wetland without impoundment capability (describe) empties into Hood Canal
3. Sloped wetland without impoundment capability (describe)

Wetland ID TA2722 3W-1 Date 5 May 1989

Habitat Features:

		Percent Cover	Number
1.	Snags		
2.	Perches		~5
3.	Logs	2%	
4.	Rock Outcrops		
5.	Cliffs		
6.	Island		
7.	Other		
8.	None		
9.	Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

great blue heron, bald eagle, waterfowl

Wetland ID TA27223W-1 Date 5 May 1989

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: (filling,) clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, (road garbage,) sewage
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. Other

Buffers:

Land use within 200 feet

N road, residential
S Hood Canal
E upland forest, residential
W upland forest, road

Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

1. (6)

a. site/upland
b. upland/site
%. 75

2.

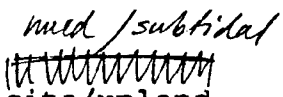
a. site/upland
b. upland/site
%. _____

3.

a. site/upland
b. upland/site
%. _____

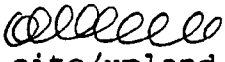
Similar:

1.



a. site/upland
%. 25

2.



a. site/upland
%. _____

3.

a. site/upland
%. _____

Wetland ID TA2722 3W-1 Date 5 May 1989

SUMMARY

	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?	✓	
4. Is the site a wetland?	✓	

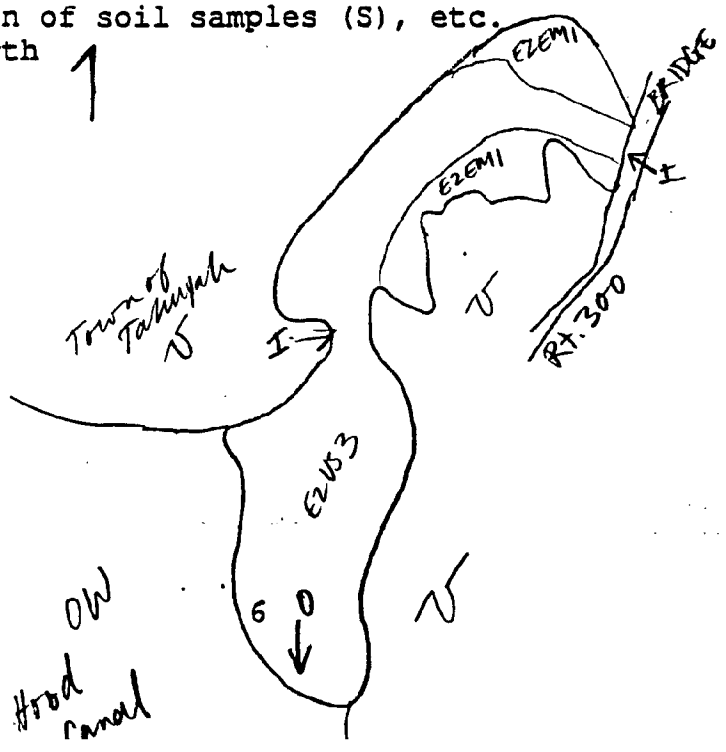
5. Summary paragraph (by EH): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This form describes the Tahuya estuary south of the bridge. It is dominated by emergent vegetation, transitioning into mud and sand going downstream. It is excellent habitat for waterfowl, and we observed an adult bald eagle. It appears to have the capacity to act as a sediment trap. The buffers to the south are good, but overall the road and parking area minimize the buffers.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.

Scale= 1" = 1000' North



Hood Canal Coordinating Council Wetland Inventory Data Form

	1/4	1/4	1/2	S	T	R
1. Wetland No. TA27223W-2						
1/4 Township No. SE¼ of T22N, R3W	NE	NE	E	27	22	3W
Wetland Name	—	—	—	—	—	—
Size (Acres)	—	—	—	—	—	—

2. Team Leader Esther Howard
Team Members Donna Alber
Date 5 May 1989 Time Begin 1130 Time End 1225
Access Points bridge, dirt road along E. shore
Landowner _____ Phone _____
Parcel No. _____ Weather sunny, warm

3. FWS Wetland Type:

A. System PALUSTRINE
1. Class _____
A-1 Subcl./Dom. _____
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
2. Class _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
3. Class _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
4. Class _____
D-1 Subcl./Dom. _____
D-2 Subcl./Dom. _____
D-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

B. System RIVERINE
1. Subsyst./Cl. tidal/unconsolidated bottom
A-1 Subcl./Dom. mud
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes RIUB3 Cl% 25
2. Subsyst./Cl. _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

C. System LACUSTRINE
1. Subsyst./Cl. _____
A-1 Subcl./Dom _____
A-2 Subcl./Dom _____
A-3 Subcl./Dom _____
Special Modifier _____
Codes _____ Cl% _____
2. Class _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
3. Class _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

D. System ESTUARINE
1. Subsyst./Cl. intertidal/emergent
A-1 Subcl./Dom. grass/Carex (lyngbyei
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes EZEM1 Cl% 75
2. Subsyst./Cl. _____
B-1 Subcl./Cl. _____
B-2 Subcl./Cl. _____
B-3 Subcl./Cl. _____
Special Modifier _____
Codes _____ Cl% _____
3. Subsyst./Cl. _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

Wetland ID TA2722 3W-2 Date 5 May 1989

Additional Plant Species:	Indicator Status:
Juncus sp.	—
Potentilla pacifica	—
Triglochin maritimum	OBL
Glaux maritima	FACW+

Soils:

Soil type according to SCS: _____

Hydric? YES NO

Soil samples (Munsell Classification) 1.

2.

3.

We didn't take samples. Soils were saturated + tidally influenced

Wetland ID TA27223W-2 Date 5 May 1989

Hydrology:

	Yes	No	Depth
1. Standing water	✓		
2. Running water	✓		
3. Saturated soils	✓		
4. Tidal influence	✓		

Type Of Outlet:

1. None
2. Overland: constricted (Tahuyah River) unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
4. Pipe: type
   diameter_____ not measured_____
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. Stream or river Tahuyah
6. Storm water drainage pipe
7. Other
8. Unknown

Impoundment Capacity:

1. Flat wetland with impoundment capability (describe)
2. Flat wetland without impoundment capability (describe) no damnable outlet
3. Sloped wetland without impoundment capability (describe)

Wetland ID TA2722 3W-2 Date 5 May 1989

Habitat Features:

		Percent Cover	Number
1.	Snags	/	
2.	Perches		
3.	Logs	/	
4.	Rock Outcrops		
5.	Cliffs		
6.	Island		
7.	Other		
8.	None		
9.	Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

Killdeer

Wetland ID TA27223W-2 Date 5 May 1989

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: filling, clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, garbage, sewage
3. Agricultural or Commercial: pasture (not currently), cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. Other hunting

Buffers:

Land use within 200 feet

N upland forest
S dirt road, upland forest
E upland forest
W wetland

Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

1.

a. site/upland
b. upland/site
%. 95

2.

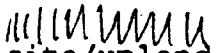
a. site/upland
b. upland/site
%.

3.

a. site/upland
b. upland/site
%.

Similar:

1.



a. site/upland
%.

2.

a. site/upland
%.

3.

a. site/upland
%. 5

Wetland ID TA2222 2W-2 Date 5 May 1989

SUMMARY

	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?	✓	
4. Is the site a wetland?	✓	

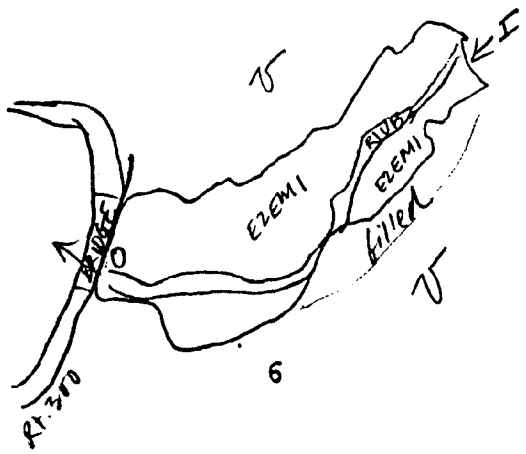
5. Summary paragraph (by EH): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This is an estuarine system associated with the Tabusintac River. It is dominated by emergent Carex lyngbyei and Glaux maritima. It provides good habitat for deer, waterfowl, and raptors. The vegetation could potentially slow down storm water, but not retain it. It is impacted by hunting and filling.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.

Scale= 1" = 1000' North ↑



Hood Canal Coordinating Council Wetland Inventory Data Form

1. Wetland No. TA23223W-3 | 1/4 | 1/4 | 1/2 | S | T | R
   1/4 Township No. SE 1/4 of T22N, R3W | all | SW | W | 23 | 22 | 3W
   Wetland Name
   Size (Acres)
2. Team Leader Esther Howard
   Team Members Dorothy Martin, Clarence Martin, Celia Parrot, Emily Lawrence
   Date 7 May, 9 May Time Begin N/A Time End N/A
   Access Points dirt road along E shore of Tahuyah
   Landowner Phone
   Parcel No. Weather cloudy & cool
3. FWS Wetland Type:

A. System PALUSTRINE
   1. Class scrub-shrub
      A-1 Subcl./Dom. BL decid/Salix spp.
      A-2 Subcl./Dom. BL decid/Spirea douglasii
      A-3 Subcl./Dom.
      Special Modifier
      Codes PSS1 Cl% 75
   2. Class emergent
      B-1 Subcl./Dom. persis/Carex obnupta
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes PEM1 Cl% 15
   3. Class
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   4. Class
      D-1 Subcl./Dom.
      D-2 Subcl./Dom.
      D-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

B. System RIVERINE
   1. Subsyst./Cl.
      A-1 Subcl./Dom.
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   2. Subsyst./Cl.
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

C. System LACUSTRINE
   1. Subsyst./Cl
      A-1 Subcl./Dom
      A-2 Subcl./Dom
      A-3 Subcl./Dom
      Special Modifier
      Codes Cl%
   2. Class
      B-1 Subcl./Dom.
      B-2 Subcl./Dom.
      B-3 Subcl./Dom.
      Special Modifier
      Codes Cl%
   3. Class
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

D. System ESTUARINE
   1. Subsyst./Cl. intertidal/emergent
      A-1 Subcl./Dom. persis/Carex lyngbye
      A-2 Subcl./Dom.
      A-3 Subcl./Dom.
      Special Modifier
      Codes E2EM1 Cl% 10
   2. Subsyst./Cl.
      B-1 Subcl./Cl.
      B-2 Subcl./Cl.
      B-3 Subcl./Cl.
      Special Modifier
      Codes Cl%
   3. Subsyst./Cl.
      C-1 Subcl./Dom.
      C-2 Subcl./Dom.
      C-3 Subcl./Dom.
      Special Modifier
      Codes Cl%

Wetland ID TA232234W-3 Date 7 May, 9 May 1994

Additional Plant Species:	Indicator Status:
Juncus sp.	OBL
Juncus sp.	—
Typha latifolia	OBL
Potentilla palustris	—
Pyrus fusca	FACW
Rubus spectabilis	FAC
Viola langsdorfii	FACW
Juncus effusus	FACW+
Athyrium filix-femina	FAC
Rosa sp.	—
Lonicera sp.	FAC
Alnus rubra	FAC

Soils:

Soil type according to SCS: _____

Hydric? YES NO

Soil samples (Munsell Classification) 1. 7.5 YR 3/2

2. 5YR 3/2

3. 7.5 YR 3/2

Oenanthe sarmentosa	OBL
Lysichitum americanum	OBL
Equisetum sp.	—

Wetland ID TA 23223W-3 Date 7May, 9May 1989

Hydrology:

	Yes	No	Depth
1. Standing water	✓		
2. Running water	✓		
3. Saturated soils	✓		
4. Tidal influence	✓		

Type Of Outlet:

1. None
2. Overland: constricted unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
4. Pipe: type
   diameter_____ not measured_____
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. Stream or river
6. Storm water drainage pipe
7. Other
8. Unknown

Impoundment Capacity:

1. Flat wetland with impoundment capability (describe)
2. Flat wetland without impoundment capability (describe) not dammable
3. Sloped wetland without impoundment capability (describe)

Wetland ID TA 232234-3 Date 7 May, 9 May 1989

Habitat Features:

	Percent Cover	Number
1. Snags	/	
2. Perches		
3. Logs		
4. Rock Outcrops		
5. Cliffs		
6. Island		
7. Other		
8. None		
9. Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

deer tracks, otter scat, pileated woodpecker, marsh wren, hummingbirds

Wetland ID TR23223W-3 Date 7 May, 9 May 1989

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: filling, clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, garbage, sewage
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. Other

Buffers:

Land use within 200 feet

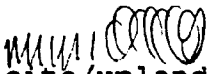
N upland forest, residential
S cleared upland, upland forest
E upland forest
W upland forest

Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

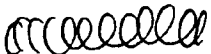
1.
a. site/upland
b. upland/site
%. 10

2.
a. site/upland
b. upland/site
%.

3. 
a. site/upland
b. upland/site
%. 75

Similar:

1.
a. site/upland
%. 15

2. 
a. site/upland
%.

3.
a. site/upland
%.

SUMMARY

	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?	✓	
4. Is the site a wetland?	✓	

5. Summary paragraph (by EH.): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This is a primarily scrub-shrub wetland at the upper limits of salt influence on the Tahuya. Areas appear to have been filled, and have appear to have been altered by beaver activity. It is excellent habitat for a number of different animals, such as waterfowl, otters, deer, otters, and potentially coyotes + racoons. This wetland has water flow capabilities, but would slow down storm water. It has wide buffers of upland forest.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.
Scale= 1" = 1000' North ↑

Hood Canal Coordinating Council Wetland Inventory Data Form

	1/4	1/4	1/2	S	T	R
1. Wetland No. TR23223W-4						
1/4 Township No. SE1/4 of T22N, R3W	SW	NE	E	23	22	3W
Wetland Name	SE	NW	W			
Size (Acres)						

2. Team Leader Esther Howard
Team Members Celia Parrot, Emily Lawrence
Date 16 May 1989 Time Begin 0800 Time End 1100
Access Points dirt road along east shore of river
Landowner _____ Phone _____
Parcel No. _____ Weather cloudy + cool

3. FWS Wetland Type:

A. System PALUSTRINE
1. Class emergent
A-1 Subcl./Dom. persis/Carex obnupta
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes PEMI Cl% 30
2. Class scrub-shrub
B-1 Subcl./Dom. BLdecid/Salix spp.
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes PSSI Cl% 70
3. Class _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
4. Class _____
D-1 Subcl./Dom. _____
D-2 Subcl./Dom. _____
D-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

B. System RIVERINE
1. Subsyst./Cl. lower perennial/unconsolidated shore
A-1 Subcl./Dom. Sand
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes R2US2 Cl% _____
2. Subsyst./Cl. _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

C. System LACUSTRINE
1. Subsyst./Cl _____
A-1 Subcl./Dom _____
A-2 Subcl./Dom _____
A-3 Subcl./Dom _____
Special Modifier _____
Codes _____ Cl% _____
2. Class _____
B-1 Subcl./Dom. _____
B-2 Subcl./Dom. _____
B-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
3. Class _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

D. System ESTUARINE
1. Subsyst./Cl. _____
A-1 Subcl./Dom. _____
A-2 Subcl./Dom. _____
A-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____
Subsyst./Cl. _____
B-1 Subcl./Cl. _____
B-2 Subcl./Cl. _____
B-3 Subcl./Cl. _____
Special Modifier _____
Codes _____ Cl% _____
3. Subsyst./Cl. _____
C-1 Subcl./Dom. _____
C-2 Subcl./Dom. _____
C-3 Subcl./Dom. _____
Special Modifier _____
Codes _____ Cl% _____

Wetland ID TA23223W-4 Date 16 May 1989

Additional Plant Species:	Indicator Status:
Ranunculus repens	FACW
Potentilla palustris	OBL
Juncus sp.	FACW
Equisetum sp.	FAC
Rubus spectabilis	FAC
Platanus occidentalis	FACW
Scirpus microcarpus	OBL
Potamogeton sp.	OBL
Physocarpus capitatus	FAC+

Soils:

Soil type according to SCS: _____

Hydric? YES (NO)

Soil samples (Munsell Classification) 1. 10YR 3/3

2.

3.

Wetland ID TA2322341-4 Date 16 May 1989

Hydrology:

	Yes	No	Depth
1. Standing water	✓		
2. Running water	✓		
3. Saturated soils		✓	
4. Tidal influence		✓	

Type Of Outlet:

1. None
2. Overland: (constricted) unconstricted
3. Open channel: (artificial)
   channel width_____ channel depth_____ not measured_____
4. Pipe: type
   diameter_____ not measured_____
5. Other
6. Unknown

Type Of Inlet:

1. No visible inlet
2. Seep
3. Spring
4. Wetland (indicate type of connection)
5. Stream or river
6. Storm water drainage pipe
7. Other
8. Unknown

Impoundment Capacity:

1. Flat wetland with impoundment capability (describe)
2. Flat wetland without impoundment capability (describe) no dammable outlet
3. Sloped wetland without impoundment capability (describe)

Wetland ID TA23223W-4 Date 16 May 1989

Habitat Features:

	Percent Cover	Number
1. Snags	/	
2. Perches		
3. Logs		
4. Rock Outcrops		
5. Cliffs		
6. Island		
7. Other		
8. None		
9. Unknown		

Animal Species Observed: (note number of individuals, behaviors, or signs of animals such as tracks, nests, scat, etc.)

signs of beaver

Wetland ID TA2322Sw-4 Date 16 May 1989

Human Impacts: Circle all that apply, describe briefly (type, extent, etc.)

1. Mechanical: (filling,) clearing, grading, trails, impoundment, ditching, draining, dredging
2. Pollution: runoff, garbage, sewage
3. Agricultural or Commercial: pasture, cultivated field, peat-mining
4. Sedimentation, erosion, flooding
5. Other

Buffers:

Land use within 200 feet

N upland forest
S upland forest
E riparian area
W upland forest, riparian area

Which of the following best represents the difference in height between the wetland and the surrounding upland?

Different:

1.

a. site/upland
b. upland/site
%. _____

(2.)

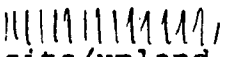
a. site/upland
b. upland/site
%. 100

3.

a. site/upland
b. upland/site
%. _____

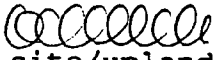
Similar:

1.



a. site/upland
%. _____

2.



a. site/upland
%. _____

3.

a. site/upland
%. _____

Wetland ID TA23 2234W-4 Date 16 May 1989

SUMMARY

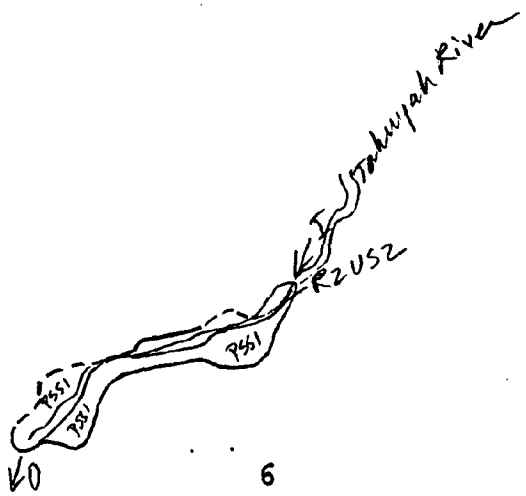
	YES	NO
1. Wetland vegetation dominant?	✓	
2. Wetland hydrology present?	✓	
3. Hydric soils present?		✓
4. Is the site a wetland?	✓?	

5. Summary paragraph (by EH): briefly discuss open space, vegetation types, habitat feature, storm water detention, biofiltration, buffer, impacts, unique features, etc.

This is a palustrine, primarily scrub-shrub wetland in the floodplain of the Tahuyah. It is excellent wildlife habitat, providing food, browse, and a water source.

WETLAND SKETCH

Indicate vegetation types (USFWS codes), inlet (I), outlet (O), open water (OW), upland (U), human impacts, habitat features, photo number and direction, location of soil samples (S), etc.
Scale= 1"=1000' North



APPENDIX 3

HOOD CANAL WETLANDS INVENTORY PROJECT

The orientation field trips went very well, though the weather was somewhat nippy. Yet, we saw spring pushing through the brown grass and through the bark of boughs We saw barkless twigs neatly chewed by beavers, we saw the first swallows early in April and ospreys in trees, ospreys in the air, even an osprey chasing an eagle. Some of you have already gotten your feet wet (boots muddied) doing field work. There will be many more opportunities to observe one of the more dynamic spring transformations: the greening of wetlands. Check the schedule below.

FIELD SCHEDULE: APRIL TO MID-MAY

Please fill and mail the coupon at the bottom of this page

MILLER CREEK (Port Gamble area)
Meet at Country Corner at 8 AM
Saturday, April 29
Sunday, April 30

TAHUYA CREEK (Big bend in the Canal)
Meeting place to be announced (8 AM)
Friday, May 5
Saturday, May 6
Sunday, May 7

SHINE CREEK (West side of Hood Canal Bridge)
Meeting Place: Fire hall at the intersection of So. Point Road and Rt. 104 (8 AM)
Friday, May 12
Saturday, May 13

PUBLIC EDUCATION

There are several educational opportunities for volunteers. Please consider participating in one of these:

1) Helping develop a wetlands inventory field guide for citizens.

2) Helping write a press release and an article about this project for the Hood Canal Coordinating Council newsletter.

3) Giving a short presentation at PTA or other community group meetings on wetlands protection, describing your experience and how the public can help. You need not be a pro-marshologist.

4) Helping conduct a field trip for local decision-makers and the general public.

PLEASE MAIL COUPON TODAY TO:
KEN PRITCHARD ROOM 770 DEXTER HORTON BUILDING 710 SECOND AVENUE SEATTLE, WA 98104

NAME_____DAY PHONE_____EVE. PHONE_____

CREEK	DATE
1	
2	
3	

I AM ALSO INTERESTED IN PARTICIPATING IN THE FOLLOWING EDUCATIONAL ACTIVITY:

APPENDIX 4

HOOD CANAL CITIZEN WETLANDS INVENTORY PROJECT

by Donna M. Simmons

June 1, 1989

For the past several months, a number of volunteers have accompanied a field biologist through swamps, marshes, bogs, along streams and ventured into other freshwater wetlands in three separate areas around the Hood Canal watershed. Together, they are conducting a baseline survey of wetlands which are either undocumented or poorly documented and which may not be adequately classified or protected. The results of the survey will be used to help Mason, Kitsap and Jefferson counties in making long term land use decisions.

These activities are an essential part of The Hood Canal Citizen Wetlands Inventory Project, sponsored by the Hood Canal Coordinating Council in cooperation with Adopt-A-Beach. The project is being funded by a Coastal Zone Management grant administered by the Washington State Dept. of Ecology. It was motivated by government and public concern over the continued loss of critical wetlands, recent legislative failures to provide protection, the lack of resources to collect the necessary data and the need for education in wetlands issues. Clyde Stricklin, Kitsap County Planner, explained the benefits of the project by stating "The value of the project is in building awareness on the part of people who live and work in the watershed - to get to know their area better. It's possible they might then bring that knowledge to other things that go on

in the county, like land use planning and review of applications for development and in raising awareness on the part of their appointed or elected officials."

In addition to providing valuable assistance to the counties, the project is designed to encourage citizen stewardship and public education in the protection of wetlands. From the very beginning, interest in and support for the wetlands project has been high. Five to ten citizens in each of the three areas (Shine Creek, Miller Creek and a section of the Tahuya River) volunteered to spend their time and energy to participate. They began by attending orientation and field training sessions where they learned how to visually assess wetland types and to collect other pertinent information, using a methodology based on the best available resources. Since then, these individuals have attended day-long field inventory trips several times in each of the drainages, recording wetland characterestics, values and functions, hydrology, boundaries, plant and wildlife communities, soil types, and human uses and impacts. One of the project volunteers, Donna Alber, expressed her feelings about working on the project this way. "It's been a real educational experience. I've learned a lot about wetland plants that I wasn't familiar with before. Along with the field trips, the Hood Canal lecture series complimented the project and added to my understanding of the importance of protecting these areas - an awareness which I hope I can bring to the attention of others who live here."

Since education is a key element of the project, as well as in the future protection of wetlands, the volunteers will also participate in educational activities. These will consist of citizen guided tours for local decision-makers and interested members of the public, presentations to community clubs and articles for various newsletters and other publications. The work of the volunteers will also be of great help toward the development of a wetlands inventory field guide for citizens.

The overall success of this project relies almost entirely on the response of local citizens who are collecting valuable information, helping to educate the public about the value of wetlands and the critical need for their protection, developing a model for use in other areas, and having fun in the process. Irrespective of individual backgrounds, these volunteers share one thing in common. They all possess the enthusiasm and dedication it takes to brave sometimes cool and drippy weather for an opportunity to experience one of nature's most quietly spectacular transformations - from winter dormancy to the brilliance of spring renewal.

Anyone wishing to find out more about the Hood Canal Citizen Wetland Inventory Project may call Ken Pritchard, Executive Director, Adopt-A-Beach, at (206)296-6544, Esther Howard, Field Biologist, at (206)786-6937, or Donna Simmons, Volunteer Coordinator, at (206)877-5747.

APPENDIX 6

HOOD CANAL WETLANDS VOLUNTEER INVENTORY PROJECT

We would like to know your opinion about this project as well as your comments and suggestions on how to improve it. Please take a few moments to complete this questionnaire and return it as soon as possible to the address on the back page.

NAME (optional)_____

1. How did you learn about this project?

2. What made you decide to be a wetlands volunteer?

3. Did you attend the 3/16-17 training in Chimacum (YES NO)
   What did you like best about it?

   What did you like least?

4. Did you attend the orientation field trip (to Miller Creek on 3/31 and to Tahuya Lake on 4/1)? Which one_____
   What did you like best about it?

   What did you like least?

5. Did you attend the follow-up orientation session (at the community center in Chimacum on 4/6, at the Belfair library on 4/9)? Which one_____
   What did you like best about it?

   What did you like least?

6. Did you go on any of the field trips? (YES NO)
   If no, why not?

   If yes, which ones and how many times each?

   What did you like best about them?

   What did you like least?

OVER

PLEASE GRADE THE PROGRAM

	A	B	C	D	F
1. The training/orientation *classes & trips*	__	__	__	__	__
2. The field trips	__	__	__	__	__
3. The helpfulness of the volunteer coordinators (Ken Pritchard and Donna Simmons)	__	__	__	__	__
4. The helpfulness of the field biologist (Esther Howard)	__	__	__	__	__
5. Did you learn much about wetlands in this project? (A: much, F: nothing)	__	__	__	__	__
6. Did you feel that the field biologist used your time effectively? (A: most effectively E: least effectively)	__	__	__	__	__

What are your recommendations regarding the way the project was organized and what would you change in the future?

Do you wish to continue your involvement in this project? (YES NO)]

If yes, how?

If no, why not?

Other comments and suggestions

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