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APPROVED WETLANDS INVENTORY
Oregon Division of State Lands

Meets LWI standards

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BAY CITY LOCAL WETLAND INVENTORY

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INTRODUCTION TO THE LWI PROCESS

Wetlands are valuable resources, providing water quality protection, flood control, wildlife habitat, and recreational opportunities. Planners and citizens have learned that they need an overview of wetland types and locations within their entire community in order to protect and use these valuable wetland resources. Local Wetland Inventories are designed to gather this information.

A Local Wetland Inventory is a systematic survey of a fairly large geographic area, intended to locate and map wetlands over 0.5A and classify them by type. The purpose of a Local Wetland Inventory (LWI) is to provide community-wide information on wetlands to aid in city planning and development. By mapping wetlands within an entire community, rather than waiting for landowners to conduct delineations on individual parcels in a piecemeal fashion, the community gains a valuable overview of the wetland situation in their area. With this overview, planners and citizens can then prioritize wetlands for protection, arrange for delineations in areas where development may occur, and streamline the removal/fill permitting process to help landowners avoid regulatory violations during development.

An LWI provides useful information, but it does not substitute for site-by-site wetland delineations. The wetland boundaries drawn during an LWI are approximate, and are often based on offsite methods where access is prohibited or logistically difficult. Although the intent is to map all wetlands over 0.5A (and for this LWI, many wetlands smaller than 0.5A were mapped), the methods used in an LWI are by nature less accurate than the more intensive methods used for wetland delineations. Therefore, the LWI wetland maps may not include all wetlands within the study area, and there may be upland areas within the mapped wetlands. When development may occur in or near an area with wetlands or probable wetlands, a complete wetland delineation must be conducted at the development site to establish accurate jurisdictional boundaries for the wetlands.

The wetland maps included with this LWI report use several symbols to show wetland characteristics and different levels of accuracy involved in the mapping process. "W" indicates wetlands. "PW" indicates Probable Wetlands; these are generally areas that were inaccessible, but which show indicators of wetland status from offsite. "M" indicates a wetland/upland mosaic, in which wetlands and uplands intergrade in a complex pattern, for which boundaries could not be determined in a study of this type due to budget and time limitations.

Two line types are used to indicate the accuracy of wetland boundaries on the LWI maps. Solid lines are used where the boundary is clearly visible on the ground or in an aerial photograph. Broken lines are used where the boundary is more gradual or obscure, and/or access or visibility was limited. Solid line boundaries are more accurate than broken line boundaries.

This report provides information required by the DSL Local Wetland Inventory Standards and Guidelines, as well as additional information intended to make the report easier to use. Included in this report are: (1) an executive summary; (2) a study area summary; (3) a description of wetland determination procedures, information sources, and mapping methods used in the study;

(4) technical staff qualifications; (5) references cited; (6) a list of maps and mylar overlays included in the LWI package (Appendix 1); (7) a key to abbreviations and codes used in the summary sheets and data sheets (Appendix 2); (8) wetland summary sheets (Appendix 3); (9) data sheets for wetlands sampled (Appendix 4); and (10) maps of wetlands identified during the inventory (Appendix 5).

EXECUTIVE SUMMARY

This LWI used methods outlined in the Oregon Division of State Lands Local Wetlands Inventory Standards and Guidelines. Wetlands within the Bay City Urban Growth Boundary were located using the methods of the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987). Before field work was started, aerial photographs, National Wetland Inventory maps, soil surveys, and other data were used to create a preliminary wetlands map. Field work to ground-truth the preliminary map, establish wetland boundaries, and locate additional wetlands was conducted during July 1995 and February 1996. Offsite methods were used where access was denied or logistically difficult. Wetland boundaries were refined using black-and-white and color infrared aerial photographs where necessary. Wetland boundaries were transferred to assessor's maps and then digitized to provide overlay maps for this report.

This LWI located 106 acres of wetlands within the Bay City Urban Growth Area of 854 acres. Most of the wetlands are associated with creeks or streams, but some wetlands derive their hydrology from diffuse surface flow and ponding, seepage, or estuarine flow in tidal plains. Wetlands were grouped by drainage basins, and include a total of 46 acres in the Doughty Creek drainage basin (of which 31 acres are estuarine or tidally-influenced wetlands near Goose Point), 28 acres along Jacoby Creek, about 10 acres in the Patterson Creek drainage, and 12 acres in an unnamed creek drainage (herein named "McCoy Creek") east of the sewage lagoons. The sewage lagoons (10 A) are included in the acreage total, bringing the total to 106 acres.

Vegetation communities in the wetlands range from tidal prairies to skunk cabbage flats within heavily forested land. The wetland coded DOU2 is the only remaining area of native tidal prairie on Tillamook Bay. This wetland is a valuable remnant of Oregon's original vegetation, and is a particularly important aesthetic, scientific, and educational resource of statewide and national significance.

WETLAND CRITERIA

Hydrology

Hydrology is considered the driving force of wetland ecology. To be classified as a wetland, an area must exhibit a water table saturating the major portion of the root zone for a significant period during the growing season, or about 3 weeks on the Oregon coast. Positive indicators of wetland hydrology include visual observation of inundation and soil saturation within the upper 12" of the soil profile (direct indicators), and indirect indicators such as high water marks, drift

lines, sediment deposits, wetland drainage patterns, living oxidized root channels, soil survey data, stream gauge data, flood predictions and historic records.

Vegetation

Some plant species can tolerate saturated soil conditions for long periods during the growing season. These plants are considered hydrophytic. An area must show a predominance of hydrophytic vegetation to be classified as a wetland. For the purpose of determining hydrophytic vegetation, plants are classified into five categories in the National List of Plant Species That Occur in Wetlands (Reed 1988; Reed 1993). The categories, from most to least tolerant of wet soil, are: obligate wetland plants (OBL), facultative wetland plants (FACW), facultative plants (FAC), facultative upland plants (FACU), and obligate upland plants (UPL). Modifiers to these categories, consisting of "+" and "-", show if a plant is more (+) or less (-) tolerant of wet conditions than plants in an unmodified category. There are two other categories: "no indicator" (NI) is used when insufficient information is available for a species; and "not on list" (NOL) is used for species that are not included in the national list. It is frequently inferred that NOL species are UPL. If a site, under normal conditions, has more than 50 percent of dominant species classified as OBL, FACW, and/or FAC (excluding FAC-), that site meets the vegetation criterion for classification as a jurisdictional wetland.

Soils

Jurisdictional wetlands must have hydric soils, which are soils that are saturated or flooded long enough during the growing season to develop anaerobic conditions within the major portion of the root zone. These soils are listed in Hydric Soils of the United States (Soil Conservation Service, 1987), and in the federal delineation manual (Environmental Laboratory, 1987). Hydric soils usually develop morphological indicators of prolonged wetness, and these indicators must be observed in the field to confirm hydric soils. The indicators include histic layers, hydrogen sulfide odor, aquic moisture regime, gleying, low chroma matrix, distinct mottling, and iron and manganese concretions.

STUDY AREA SUMMARY

The study area for the Bay City LWI consists of the area inside the Bay City Urban Growth Boundary. The area's topography rises from tidal plains and broad footslopes near Tillamook Bay into the foothills of the Coast Range. Three major drainages flow southwest across the study area: Larson Creek at the far north edge; Patterson Creek and Jacoby Creek (a tributary of Patterson Creek) in the center of the study area; and Doughty Creek at the south edge. A fourth, unnamed drainage (which flows southwest between Tillamook and McCoy Avenues) is referred to as McCoy Creek in this report. Tillamook Bay (and the adjoining railroad embankment) forms the west boundary of the study area. Tidal flats are found in the southwest corner of the area; a portion of this flat area has been converted to a sewage treatment facility.

This LWI located 106 acres of wetlands within the 854 acre study area.

Hydrology

Wetland occurrence in the study area is generally related to proximity to watercourses. Hydrology in these wetlands is derived from seasonal flooding and a high water table near the watercourse. Larson Creek, Patterson Creek, Jacoby Creek, McCoy Creek, and Doughty Creek all have extensive wetlands along their length. On broad tidal plains near Goose Point, wetlands are fed partly by tidal flow and partly by freshwater surface and subsurface flow. Some wetlands on hillslopes are fed by groundwater discharge (seepage); this is described in more detail in **Soils** below. Some of the wetlands, such as the sewage lagoons and the excavated swale just east of the lagoons, are artificially created, and some natural wetlands may have become wetter in recent decades because of human activities (for example, water is sometimes impounded by city streets or constructed embankments).

Vegetation

Most wetlands in the study area fall into the Cowardin et al (1979) wetland types PFOC, PFOR, PSSC, PSSR, PEMC, and PEMR, indicating that they are palustrine (P) wetlands dominated by forested (FO), scrub-shrub (SS) or emergent (EM) vegetation. The classifications ending in "C" are seasonally-flooded freshwater wetlands, while those ending in "R" are seasonally-flooded, freshwater, tidally-influenced wetlands. Vegetation in these wetlands depends on land use history as well as environmental factors. They are generally forested where the land has remained undisturbed, but emergent or scrub-shrub where it has been cleared. Most of the wetlands along Larson Creek and Jacoby Creek are forested. Wetlands along Patterson Creek, Doughty Creek, and McCoy Creek include forested, scrub-shrub and emergent areas.

The most unusual wetlands located during this survey are the tidal prairies located near Goose Point (coded DOU2 in this LWI). Wetland DOU2 contains the only remaining native tidal prairie on Tillamook Bay. These tidal prairie wetlands are classified E2EMP and E2EMN, indicating emergent estuarine wetlands that are flooded by tides. These wetlands are dominated by tufted hairgrass (*Deschampsia cespitosa*, classified FACW), Pacific silverweed (*Potentilla pacifica*, OBL), slough sedge (*Carex obnupta*, OBL), and soft rush (*Juncus effusus*, FACW). Tideland marshes such as these are unusual and little-known to scientists (Franklin and Dyrness, 1988), and therefore are valuable scientific, educational and aesthetic resources.

Wooded wetlands within the study area generally have an alder canopy, with scattered Sitka spruce (*Picea sitchensis*, FAC) in the tree layer. Salmonberry (*Rubus spectabilis*, FAC+) is a common shrub layer dominant, with skunk cabbage (*Lysichiton americanum*, OBL), slough sedge, and creeping buttercup (*Ranunculus repens*, FACW) in the herbaceous layer. Scrub-shrub wetlands generally have a willow (*Salix* species, FAC to FACW) canopy, with an understory dominated by slough sedge. Emergent wetlands are often dominated by slough sedge or rushes (*Juncus* species); other common dominants include reed canarygrass (*Phalaris arundinacea*, FACW), birdsfoot trefoil (*Lotus corniculatus*, FAC), creeping buttercup, small-fruited bulrush (*Scirpus microcarpus*, OBL), Pacific silverweed, and velvetgrass (*Holcus lanatus*, FAC).

Soils

Most wetlands within the study area have Hebo silty clay loam or Coquille silt loam soils with bright mottling in the upper 12" of the soil profile. Both of these soil series are listed as hydric soils for Tillamook County (SCS, 1989). In some cases, these soils are not mapped in the wetland area, but appear to be present as inclusions within the mapped series.

Coquille soils are formed in alluvial deposits. They are commonly found on bottomlands and floodplains or in swales adjacent to alluvial terraces, and are subject to tidal flooding. Coquille soils are very poorly drained and are characterized by complex microrelief of depressions, ridges and sloughs. This microrelief leads to complex intermingling (mosaics) of wetland and upland areas, as the lower areas undergo seasonal or intermittent ponding.

Hebo soils are found in depressions or level ground on alluvial terraces and bottomland. These soils are poorly drained, partly due to a heavy clay layer that begins at a depth of 10" or more. This clay layer (called a "clay pan") is very slowly permeable, and as a result the root zone is often waterlogged during the wet season. Hebo soils are the only clay pan soils in the Tillamook area.

Other soil series commonly found in the study area are Ginger and Winema silt loams. These series are not listed as hydric soils, but inclusions of Hebo soils may be found in areas mapped as Ginger soil (SCS, 1989). Although not described in the survey, some areas mapped as Winema appear to include unmapped Hebo soils in bottomlands, swales and seepage zones.

Bay City has many areas of hillslope and base slope seepage, though they are not described in the Tillamook Area Soil Survey (SCS, 1964). The seeps are located where soils have a relatively impermeable layer near the surface, causing a perched water table. The impermeable layer may be a clay pan (as in Hebo soils), or a hardpan consisting of unconsolidated parent material. Rainfall or surface drainage on the hillside permeates only to the hardpan, then flows downhill above the hardpan. Where the surface layer is shallow or water flow is great, water flows out from the surface as springs. In seepage areas, the surface soil above the pan remains saturated but no surface flow is evident.

METHODS AND INFORMATION SOURCES

Information sources

We met with members of the Bay City Planning Commission on April 25, 1995 to learn what Bay City hoped to accomplish during this study. During this discussion, we identified the City's priority areas for wetland identification, and reviewed background information. At this meeting and at subsequent dates prior to the field inventory, we used the following information sources to develop a preliminary wetlands map and develop a plan of action for the study:

- U.S. Army Corps of Engineers color infrared aerial photos flown in October 1989; scale 1:24,000. We had these photos enlarged fourfold to achieve a scale of 1" = 500' (1:6000).

- Black and white air photos (in stereo pairs) flown by WAC Corporation in May 1994. These were used to locate areas of change since the date of the infrared photos.
- Assessor's maps for Bay City. Detail maps were available at a scale of 1" = 100' (occasionally 1" = 200'), with index maps at 1" = 400'.
- Bay City Land Use Plan and Zoning Designations map at a scale of about 1" = 1200'
- A wetland delineation conducted by Dan Bernards for his property along Jacoby Creek, and a wetland delineation conducted by Gerry Black for a site just north of the sewage lagoons
- U.S. Fish and Wildlife Service's National Wetlands Inventory maps (Garibaldi, Oregon 7.5 minute quad and Nehalem, Oregon 15 minute quad)
- Tillamook County Soil Survey, including the list of hydric soils for Tillamook County

Field studies

In the spring of 1995, the City of Bay City sent a letter to all property owners in the city notifying them of the study. The letter included a signature form to be returned to the city by property owners who wished to deny access to their land for onsite sampling. The City received 22 denials, but access was allowed on most of the study area.

Field studies followed the DSL Local Wetlands Inventory Standards and Guidelines. Wetland determinations were conducted using the methods of the 1987 Corps of Engineers Wetlands Delineation Manual. As described in the manual, the interaction of hydrology, vegetation, and soil results in the development of characteristics unique to wetlands. If a soil profile is saturated or flooded with water for a sufficient period of time, it becomes anaerobic (lacking oxygen). Lack of oxygen within the soil during the growing season changes the characteristics of both soil and vegetation. By examining the soil, vegetation and hydrology of an area, we can determine if a site is saturated long enough during the growing season to be classified as a wetland.

LWI guidelines require mapping of all wetlands larger than 0.5 acre (about 100' by 218'). To meet Bay City's needs, we mapped wetlands considerably smaller than that minimum size. In coastal communities, there is often intense pressure to develop property, and many city lots are small. In order for the city to have good wetland information for property owners, we mapped any identified wetland area that occupied the equivalent of one-third of a 50' by 100' city lot, a minimum of about 0.04 acre (approximately 50' by 35').

We conducted the bulk of field studies during July 1995; an additional field visit in late February 1996 provided additional information on some of the wetlands. Although July is during the driest part of the year, the summer of 1995 was unusually wet, so we were still able to directly observe wetland hydrology at many of the field sites. At sites that were seasonally dry, we used indirect indicators of wetland hydrology described in "Wetland Criteria" above. The timing of field work was ideal for plant species identification. Grasses, sedges and rushes had fully developed fruits and could be identified to species. Due to the wet summer, few areas were so dry that vegetation was senescent.

Our limited time and budget needed to be applied carefully to develop an accurate and complete picture of wetlands in Bay City. First, we decided to use the enlarged (1" = 500') infrared airphotos as base maps for marking wetland boundaries in the field. Mapping wetlands onto mylar overlays placed over these enlargements provided an excellent combination of efficiency and accuracy. Using the enlarged air photos as base maps gave us an accurate way to correlate landmarks and air photo signatures. Using the air photos, we could quickly locate likely wetland areas, access routes, and vantage points for offsite observations. We also found that working directly on the air photos helped us follow drainages and visualize watershed boundaries quickly and accurately in the field, an important factor in a study area where wetlands are generally associated with drainages. We used the assessor's maps in the field to locate accessible properties relative to the air photo landmarks.

Sampling methods

Field data was recorded on data sheets specially prepared for this study. A separate, uniquely numbered data sheet was used for each sample point. During field data collection, we worked in teams of two, with one person taking vegetation data while the other sampled soils and hydrology. Completed data sheets are included in Appendix 4.

We worked systematically across the study area, with one team beginning at the upstream end of the Jacoby and Patterson Creek drainages and working west, and the other team starting in the Goose Point area and working north. Each major drainage was field checked, both in obvious wetland areas and in areas for which the air photo and background information was ambiguous. Where wetlands were extensive, we sampled at several locations to characterize the range of soils, hydrology, and vegetation types present. Onsite sample points were located in both wetland and contrasting upland sites wherever possible, subject to access limitations. In some cases, the wetland boundary was abrupt and did not require a contrasting upland sample point. In general, wetland boundaries were placed by comparing the plant community at a particular point to the community at nearby sample points where soils and hydrology had been sampled, and then extrapolating the boundary.

We sampled *hydrology* at each sample point using a tile spade or auger to check soil saturation and soil moisture levels. At sites that were seasonally dry, we used indirect, secondary indicators of wetland hydrology as described in "Wetland Criteria" above, such as drift lines, high water marks, sediment deposits, wetland drainage patterns, water-stained leaves, living oxidized root channels, soil survey data, and historic records. Sites where wetland hydrology could not be observed either directly or indirectly (either due to lack of access or seasonal dry conditions), but where both soils and vegetation showed strong wetland indicators, were marked as "probable wetland."

We sampled *vegetation* by visual estimation of dominant species and their percent cover. Names of plant species and wetland types were abbreviated on the data sheets using standard codes; keys to these codes are found in Appendix 2.

We sampled *soils* by observing the soil profile using a tile spade or soil auger. Soil color was recorded using Munsell Soil Color Charts; texture, moisture, and structure were determined by feel. Mottling, concretions, oxidized root channels, and other characteristics were recorded.

Offsite methods

In areas where we lacked access (either due to landowner refusal or logistical limitations), we used offsite wetland determination methods. Specifically, we used aerial photos, the Tillamook County Soil Survey, the NWI map, and other resources to locate probable wetland areas. Where plant communities could not be observed on the ground (due to lack of a vantage point), we used the air photos to draw the dividing line between wetland and upland. In this case, boundaries were placed by comparing photo signatures to onsite ground-truthing observations from nearby areas. Where the boundary was clear on the air photo (with an obvious vegetation change or topographic break), a solid line was used on the maps. Where the boundary was less distinct due to dense vegetation or a gradual change from wetland to upland, it was marked as a broken line. A broken line boundary is less accurate than a solid-line boundary.

Where we could not access a site, but we could observe the plant communities from the ground nearby, we filled out a datasheet marked "OBS" for "Observation Point." In some cases we could directly observe wetland hydrology from offsite (e.g., water flowing in a stream, saturated surface soil, or standing water). If offsite observation showed that the site met the vegetation and hydrology criteria for wetland, and soils for the site were mapped as hydric in the soil survey (or could contain hydric inclusions), the area was marked as wetland ("W") on the study area map. If vegetation was hydrophytic and soils were mapped as hydric (or could contain hydric inclusions), but wetland hydrology could not be directly observed from offsite, the area was shown as probable wetland ("PW") on the map.

Some parts of the study area are characterized by complex intermingling of wetland and upland areas. Often the scale of the pattern is too small to be seen on air photos, or the canopy is the same in both wetland and upland areas, differing only in understory vegetation. These areas are marked with the code "M" for "Mosaic" on the study area maps.

Map preparation

After field work was completed, we transferred the wetland boundaries and sample point locations from the air photos used in the field to working copies of the assessor's maps. All boundaries were marked on the most detailed map available for the site. This was generally a 1" = 100' map, but for some areas only a 1" = 400' index map was available. Where necessary, we used the air photo signatures in conjunction with the soil survey, NWI maps, and other background information to place the boundaries. Use of stereo pairs of air photographs greatly enhanced accuracy at this stage.

After wetland boundaries were marked on the maps, wetlands were divided into separate identifiable areas and assigned identification codes. The three-letter identification codes relate wetlands to the drainage with which they are associated. For example, JAC1, JAC2, and JAC3 are

three wetlands associated with Jacoby Creek. A new code was assigned at hydrologic constrictions, such as culverts, or where sample points were available to separate a wetland into distinct subareas. Hydrologically isolated wetlands were assigned codes that related them to the nearest drainage. A separate summary sheet was prepared for each uniquely coded wetland (see Appendix 3, Summary Sheets).

C & G White Cartography digitized our hand-drawn wetland boundaries from the working copies of the draft assessors' maps and plotted them for use as overlays over the assessors' maps. These digitized maps include the following wetland codes: "W" for wetlands, "PW" for probable wetlands, and "M" upland/wetland mosaic. The maps also show sample points, including onsite sample points, marked with a "X" in a circle, and offsite "OBS" points, marked with an open circle.

Limitations of the LWI process

This LWI was conducted within a strictly limited budget and covered a large area, approximately 850 acres. The LWI procedures were designed to allow efficient location of wetlands while avoiding expenditures beyond the budget. We made every effort to locate, describe and map all wetlands within the study area, but due to limited access and time and budget constraints, some inaccuracy is possible. However, we feel this report provides the quality and accuracy needed by Bay City for planning purposes.

As stated on the study area maps, information on the maps is for planning purposes; all wetland boundaries are approximate. There may be upland areas within mapped wetlands; there may also be unmapped wetlands subject to regulation. Most importantly, an LWI provides useful information, but it does not substitute for site-by-site wetland delineations (see "Introduction to the LWI Process", page 2). When development may occur in or near an area with wetlands or probable wetlands, a complete wetland delineation must be conducted to establish accurate jurisdictional boundaries for the wetlands.

TECHNICAL STAFF QUALIFICATIONS

This LWI was conducted by Loverna Wilson, Environmental Consultant, Corvallis, Oregon; Phil Scoles of Scoles Associates, Portland, Oregon, and Laura Brophy of Green Point Consulting, Corvallis, Oregon. The project team has a broad range of field experience in wetland delineation, and has conducted over 400 delineations at work sites throughout Oregon and the Pacific Northwest. These sites have included farm pastures, urban dumps, clear-cut creek corridors, and pristine mountain meadows. Each of our projects has demanded professional judgement not only to evaluate wetland resources, but also to place our findings in the context of other resources (e.g., wildlife habitat, storm water retention). The following section briefly outlines the qualifications of each of the three team members.

Loverna Wilson has a M.S. in Botany (Plant Ecology) from Oregon State University. She has been a consulting plant ecologist since 1979, and started her own consulting company in 1983. Her experience as a plant ecologist includes a broad background in vegetation sampling and data

interpretation. During her consulting work she has been responsible for a wide variety of studies involving habitat type sampling, plant community analysis, vegetation mapping, impact assessment, and mitigation design. She is also a plant taxonomist familiar with the plant communities of much of the northwestern United States, and often conducts rare, threatened and endangered species surveys. Wetlands-related studies have comprised a major part of her work during the past ten years. She conducts wetland assessments and boundary delineations, as well as providing impact assessment, mitigation design, and assistance with the wetland removal/fill permitting process. She managed the Gearhart, Oregon LWI and the completion of the Rockaway Beach, Oregon LWI. In 1995-96, she conducted the Tillamook, Oregon LWI with Phil Scoles and Laura Brophy. In addition, she frequently teaches wetland plant identification workshops.

Phil Scoles is the principal of Scoles Associates, Inc. He holds a B.S. in Soil and Water Science from the University of California at Davis. For the past 8 years, he has managed more than 250 projects involving soil survey, soil and land use assessment, wetland soil and hydrology delineation, soil and water sampling, ground water monitoring, contaminated soil definition, disturbed site restoration, UST decommissioning, proposed landfill impact on soils and surface water, real estate environmental assessment, wetland mitigation and computer modeling. He has evaluated and documented soil resources for seven EA and EIS projects, and participated in research projects that focused on soil salinity and heavy metals distribution in arid lands. Additionally, he has utilized his technical and analytical laboratory experience in water quality to establish and instruct methods for baseline and EPA / RCRA soil and water sampling, QA/QC, and decontamination. He is currently licensed as a UST supervisor in Oregon (DEQ license no. 218) and as a soil matrix cleanup supervisor (DEQ license no. 1547). Mr. Scoles currently serves as the Chairman of the Board of Directors for the National Society of Consulting Soil Scientists (NSCSS) and serves as President for the NSCSS Pacific Northwest Chapter. He worked with Lovern Wilson on completion of the Rockaway Beach, Oregon LWI. In 1995, he worked with Lovern Wilson and Laura Brophy on the Tillamook, Oregon LWI. On occasion, Mr. Scoles instructs other professionals on atypical and problem area wetland delineations.

Laura Brophy is the sole proprietor of Green Point Consulting. She provides consulting services in the areas of botanical ecology, biological statistics and development-related environmental impact. She holds a Bachelor's degree in Biology and a Masters degree in Agronomy, with graduate research and coursework emphasis in the areas of plant community ecology, soil microbiology, statistics, and plant physiology. She has 17 years of professional experience in applied plant ecology, gained in a variety of settings including wetlands, tropical forests, mined lands, native grasslands, and agricultural lands in Oregon, Minnesota, Colorado, North Dakota, and the Republic of Panama. Prior to the establishment of Green Point Consulting, her work involved ecology of agricultural host-pathogen interactions, mined land restoration, seed bank ecology, farming systems research, and native plant community restoration. From 1986 to 1995 she managed field and laboratory operations for an agricultural ecology project at Oregon State University, coordinated all computerized data analysis and simulation modeling, and published research results. Since she established Green Point Consulting in 1994 she has taken the lead or collaborated on 48 wetland delineations and environmental assessments. She has broad experience working in a team setting on projects including wetland inventory, farming systems research, low-

input agriculture, and native plant community restoration. In 1995-96, she worked with Lovern Wilson and Phil Scoles on the Tillamook, Oregon LWI.

Our subcontractor for cartography work on this project was **C & G White Cartography** of Corvallis. This firm has been involved in a wide range of GIS and related mapping projects for public and private groups and has produced maps for several wetland inventories, including LaPine, Wickiup Junction, Philomath, Astoria, and portions of Corvallis, Oregon. They have also contracted with the Oregon Department of Fish and Wildlife to digitize the department's NWI maps.

REFERENCES

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of wetlands and deepwater habitats of the United States. US Fish and Wildlife Service, Biological Services Program, Document FWS/OBS-79/31.

Environmental Laboratory. 1987. Corps of Engineers Wetlands Delineation Manual. Technical report Y-87-1, US Army Engineer Waterways Experiment Station, Vicksburg, Miss.

Franklin, J.F., and C.T. Dyrness. 1988. Natural Vegetation of Oregon and Washington. OSU Press, 452 pp.

Soil Conservation Service. 1964. Soil Survey of Tillamook Area, Oregon. USDA Soil Conservation Service, in cooperation with Oregon Agricultural Experiment Station.

Soil Conservation Service. 1989. Hydric Soils in Tillamook County Area, Oregon. USDA Soil Conservation Service, May 31, 1989.

APPENDIX 1. MAP LIST

List of base maps with mylar overlays included in LWI package

NOTE: Complete set includes 18 maps, including comprehensive city map.

1. Comprehensive city map (paper plot only; not to be used as an overlay)
2. 1N 10 34AC
3. 1N 10 34AD
4. 1N 10 34DA
5. 1N 10 34DB
- [6. 1N 10 34DC] HAVE DUPLICATE MYLAR AS OF 05/23/97
- [7. 1N 10 35] HAVE DUPLICATE MYLAR AS OF 05/23/97
8. 1N 10 35CB
- [9. 1N 10 35CC] HAVE DUPLICATE MYLAR AS OF 05/23/97
- [10. 1N 10 35CD] HAVE DUPLICATE MYLAR AS OF 05/23/97
- [11. 1S 10 2A] HAVE DUPLICATE MYLAR AS OF 05/23/97
12. 1S 10 2BA
13. 1S 10 2BC
14. 1S 10 2BD
15. 1S 10 2CB
16. 1S 10 2CC
- [17. 1S 10 2CD] HAVE DUPLICATE MYLAR AS OF 05/23/97
18. 1S 10 3AA

APPENDIX 2. ABBREVIATIONS FOR WETLAND TYPES AND PLANT SPECIES

The following pages list abbreviations used in the wetland summary sheets and data sheets. Standard NWI wetland codes used on data sheets and summary sheets are described below. The four-letter abbreviations used for plant species names on the data sheets are found on separate pages following the wetland codes.

National Wetland Inventory (NWI) classification codes:

The following are the NWI classification codes relevant to the Bay City LWI (from USFWS NWI Map, Garibaldi 7.5" quad.). To describe a wetland, the classification codes are combined to describe the wetland system, subsystem (if any), class, and subclass, plus any modifiers describing water regime, water chemistry, and other special characteristics of the wetland. For full technical descriptions and definitions, see Cowardin et al (1979).

Wetland systems:

- P = palustrine (vegetated, nontidal wetlands; unvegetated shallow-water wetlands)
- E = estuarine (tidal wetlands with some freshwater input)

Wetland subsystems:

- E2 = estuarine intertidal (substrate exposed and flooded by tides)

Wetland classes:

- EM = emergent: vegetated mainly by herbaceous (non-woody) plants
- FO = forested: vegetated mainly by trees (woody vegetation > 6 m tall)
- SS = scrub-shrub: vegetated mainly by shrubs and other woody vegetation < 6 m tall

Water regime modifiers -- non-tidal systems:

- C = seasonally flooded

Water regime modifiers -- tidal systems:

- N = regularly flooded
- P = irregularly flooded
- R = seasonal - tidal (in tidally influenced freshwater systems)

Special modifiers:

- x = excavated

Examples of complete wetland classification codes:

- E2EMP: intertidal emergent estuarine wetland, irregularly flooded
- PEMCx: palustrine emergent wetland, seasonally-flooded, excavated
- PFOC: palustrine forested wetland, seasonally-flooded

APPENDIX 2: ABBREVIATIONS FOR PLANT SPECIES

CITY OF BAY CITY LOCAL WETLAND INVENTORY (LWI)

DATA SHEETS - PLANT CODES AND NAMES

<u>Code</u>	<u>Scientific Name</u>	<u>Common Name</u>
ACCI	<i>Acer circinatum</i>	vine maple
AGAL	<i>Agrostis alba</i>	redtop
AGST	<i>Agrostis stolonifera</i>	spreading bentgrass
AGTE	<i>Agrostis tenuis</i>	colonial bentgrass
AGROS	<i>Agrostis</i> sp.	bentgrass
ALRU	<i>Alnus rubra</i>	red alder
ALGE	<i>Alopecurus geniculatus</i>	water foxtail
AMAL	<i>Amelanchier alnifolia</i>	serviceberry
ANOD	<i>Anthoxanthum odoratum</i>	sweet vernalgrass
ATFI	<i>Athyrium filix-femina</i>	ladyfern
ATPA	<i>Atriplex patula</i>	orache
BROMU	<i>Bromus</i> sp.	brome
CAOB	<i>Carex obnupta</i>	slough sedge
CAST	<i>Carex stipata</i>	sawbeak sedge
CIVU	<i>Cirsium vulgare</i>	bull thistle
CHGL	<i>Chrysosplenium glechomifolium</i>	Pacific golden-saxifrage
CRATA	<i>Crataegus</i> sp.	hawthorn
CYSC	<i>Cytisus scoparius</i>	Scot's broom
DAGL	<i>Dactylis glomerata</i>	orchardgrass
DECE	<i>Deschampsia cespitosa</i>	tufted hairgrass
DIPU	<i>Digitaria purpurea</i>	foxglove
DISP	<i>Distichlis spicata</i>	seashore saltgrass
DRAU	<i>Dryopteris austriaca</i>	mountain woodfern
ELPA	<i>Eleocharis palustris</i>	creeping spikerush
EPILO	<i>Epilobium</i> sp.	willow-weed
EQTE	<i>Equisetum telmateia</i>	field horsetail
ERMI	<i>Erichtites minima</i>	Australian fireweed

**CITY OF BAY CITY
LOCAL WETLAND INVENTORY (LWI)**

DATA SHEETS - PLANT CODES AND NAMES (continued)

<u>Code</u>	<u>Scientific Name</u>	<u>Common Name</u>
FEAR	<i>Festuca arundinacea</i>	tall fescue
GASH	<i>Gaultheria shallon</i>	salal
GLYCE	<i>Glyceria</i> sp.	mannagrass
HEHE	<i>Hedera helix</i>	English ivy
HOLA	<i>Holcus lanatus</i>	velvetgrass
HOMO	<i>Holcus mollis</i>	creeping velvetgrass
HOBR	<i>Hordeum brachyantherum</i>	meadow barley
HYAN	<i>Hypericum anagalloides</i>	bog St. John's wort
ILEX	<i>Ilex aquifolium</i>	English holly
JUAC	<i>Juncus acuminatus</i>	taper-tip rush
JUBA	<i>Juncus balticus</i>	Baltic rush
JUBU	<i>Juncus bufonius</i>	toad rush
JUEF	<i>Juncus effusus</i>	soft rush
JUPA	<i>Juncus patens</i>	spreading rush
LOIN	<i>Lonicera involucrata</i>	bearberry honeysuckle
LOCO	<i>Lotus corniculatus</i>	bird's-foot trefoil
LYAM	<i>Lysichiton americanum</i>	skunk cabbage
MADI	<i>Maianthemum dilatatum</i>	false lily-of-the-valley
MAOR	<i>Marah oreganus</i>	Oregon wild cucumber
MEFE	<i>Menziesia ferruginea</i>	mock-azalea
MOSI	<i>Montia sibirica</i>	western springbeauty
OESA	<i>Oenanthe sarmentosa</i>	water parsley
OXOR	<i>Oxalis oregana</i>	Oregon woodsorrel
PHAR	<i>Phalaris arundinacea</i>	reed canarygrass
PISI	<i>Picea sitchensis</i>	Sitka spruce
PLLA	<i>Plantago lanceolata</i>	English plantain
POMU	<i>Polystichum munitum</i>	swordfern

**CITY OF BAY CITY
LOCAL WETLAND INVENTORY (LWI)**

DATA SHEETS - PLANT CODES AND NAMES (continued)

<u>Code</u>	<u>Scientific Name</u>	<u>Common Name</u>
POPA	<i>Potentilla pacifica</i>	silverweed
PTAQ	<i>Pteridium aquilinum</i>	bracken fern
PYFU	<i>Pyrus fusca</i>	crabapple
RARE	<i>Ranunculus repens</i>	creeping buttercup
RIBES	<i>Ribes</i> sp.	currant; gooseberry
RUDI	<i>Rubus discolor</i>	Himalayan blackberry
RULA	<i>Rubus laciniatus</i>	evergreen blackberry
RUSP	<i>Rubus spectabilis</i>	salmonberry
RUUR	<i>Rubus ursinus</i>	trailing blackberry
RUOB	<i>Rumex obtusifolius</i>	bitter dock
SAHO	<i>Salix hookeriana</i>	Hooker willow
SALA	<i>Salix lasiandra</i>	Pacific willow
SAPI	<i>Salix piperi</i>	Piper willow
SASC	<i>Salix scouleriana</i>	Scouler willow
SASI	<i>Salix sitchensis</i>	Sitka willow
SALIX	<i>Salix</i> sp.	willow
SARA	<i>Sambucus racemosa</i>	red elderberry
SCMI	<i>Scirpus microcarpus</i>	small-fruited bulrush
SOAU	<i>Sorbus aucuparia</i>	ornamental mt.-ash
SPDO	<i>Spiraea douglasii</i>	Douglas spiraea
TOME	<i>Tolmeia menziesii</i>	piggy-back plant
TRIFO	<i>Trifolium</i> sp.	white clover
TRMA	<i>Triglochin maritimum</i>	seaside arrow-grass
TSHE	<i>Tsuga heterophylla</i>	western hemlock
TYLA	<i>Typha latifolia</i>	cattail
VAPA	<i>Vaccinium parvifolium</i>	red huckleberry
VEAM	<i>Veronica americana</i>	American speedwell
VIMA	<i>Vinca major</i>	periwinkle

APPENDIX 3: WETLAND SUMMARY SHEETS

The following pages present summary sheets for the wetlands identified during this LWI.

The wetlands included are:

Drainage	Wetland code
Doughty Creek	DOU1
Doughty Creek	DOU2
Jacoby Creek	JAC1
	Jacoby Creek channel
Larson Creek	LAR1
McCoy Creek	MCC1
	MCC2
	MCC3
	MCC4
	MCC5
Patterson Creek	PAT1
	PAT2
	PAT3
	PAT4
	Patterson Creek channel

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: DOU1
Datasheet(s): 59-1(UPL), 59-2(PEMC), 63 (UPL), 64 (PEMC, PSSC; OBS)
Field verification date: 7/27/95
Location: From 250' N of Doughty Street & 1600' E of Bewley Street, S to study area boundary
Legal: T1S R10W NE 1/4 Section 2; tax map 1S 10 2A lots 3500, 4100, 4503, 4504, and 4600
Size: 4.5 A
NWI classification: PEMC, PSSC, PFOC
Hydrologic basin: Doughty Creek
Soil: Hebo silt loam
Typical colors:
0-11" (A1): 2.5Y 2.5/1 moist silt loam, no mottles
11-16" (A2): 2.5Y 2.5/1 very moist silty clay loam; many distinct 7.5YR 4/6 mottles
16->20" (A3): 2.5Y 2.5/1 very moist silty clay loam; many distinct 10YR 4/4 mottles
Topography: Footslope, swale, alluvial terrace, and bottomland

Dominant vegetation, emergent wetlands (PEMC):

Shrub layer:	Herbaceous layer:
<i>Spiraea douglasii</i>	<i>Lotus corniculatus</i>

Comments:

This wetland follows Doughty Creek and its unnamed tributary across the eastern portion of the study area. Except for a small stretch at the east edge of the study area, Doughty Creek itself is mostly outside the study area. Where it crosses the study area (SP 63), Doughty Creek is predominantly a linear wetland feature, with a deeply incised channel and steep banks dominated by upland vegetation. Where the channel broadens, *Scirpus microcarpus* and *Lysichiton americanum* dominate narrow bands of flood plain wetlands.

Most of the DOU1 wetland lies along the unnamed tributary to Doughty Creek, which has two branches joining about 600' south of Doughty Road. The east branch of the tributary begins at a spring just north of Doughty Road; there is some ditching between the spring and Doughty Road, but an area of emergent wetland remains just north of Doughty Road (SP 59-1, 59-2). Associated species in this emergent wetland include *Lysichiton americanum*, *Rubus discolor* and *Carex obnupta*. The tributary is culverted under Doughty Road, and broadens to form emergent, scrub-shrub, and forested wetlands lying south of Doughty Road (SP 64).

The west branch of the tributary is fed by surface flow and seepage off a broad slope to the west. The northern portion of this branch is largely ditched. It joins the east branch about 600' south of Doughty Street; the merged tributary joins Doughty Creek just outside the south edge of the study area. The seepage that feeds the west branch also forms wetlands on the hillslope, which appear to have vegetation and hydrology similar to the probable wetland on the opposite side of the hill, west of Bewley Street (sample point 62 in MCC5).

Adjacent uplands include hay fields and grazed pastures. Soils in the mowed hay field north of Doughty Road are Quillayute silt loam, 2.5Y 2.5/1 in the upper 22", with few prominent 7.5YR 5/8 mottles in 2.5Y 2.5/1 and 2.5Y 3/2 matrix below 22". The plant community in the hay field includes *Dactylis glomerata*, *Holcus lanatus*, *Plantago lanceolata*, *Lotus corniculatus*, *Rubus laciniatus*, *Anthoxanthum odoratum*, and unidentified mowed grasses.

Characteristics of the wetland/upland transition vary across the wetland. At Doughty Creek, steep banks provide a marked topographic transition. In most of the emergent wetlands, the vegetation shift from wetland to upland is visible on the ground and in air photos as a textural shift, with *Juncus* species providing a visual indicator. The vegetation changes at the edges of the scrub-shrub and forested wetlands are also easily visible on the ground and on airphotos.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: DOU2
Datasheet(s): 53-1 (UPL), 53-2 (E2EMP), 53-3 (E2EMN), 53-4 (PSSR, OBS), 54-1 (UPL), 54-2 (PSSR), 55-1 (UPL), 55-2 (PFOC)
Field verification date: 7/26/95
Location: Tidal prairies, scrub-shrub and forested wetlands near Goose Point
Legal: T1S R10W SW 1/4 of Sec 2; tax map 1S 10 2CC lots 1001, 3500, 3900, 4100, 4200, 4300, 4400, 4500, 4600, 4700, 4800, 4900, and 5000; and 1S 10 2CD lot 1100
Size: 30.8 A
NWI classification: E2EMP, E2EMN, PSSR, PFOC
Hydrologic basin: Doughty Creek
Soil: Tidal plains and Coquille and Ginger silt loams
Typical colors, tidal prairie community (Coquille silt loam):
0-1" (A1): 2.5Y 2/0 moist silt loam, no mottles
1-7" (A2): 2.5Y 3/2 very moist silt loam; no mottles
7-12" (AB): 2.5Y 3/1 saturated silt loam, common, distinct 7.5YR 4/3 mottles (some profiles unmottled)
12-20"+ (2C): 2.5Y 2/0 saturated loam, no mottles

Typical colors, scrub-shrub and forested wetland (Ginger and Brenner silt loam):
0-9" (A1): 10YR 2/1 very moist silt loam
9--20" (A2): 2.5Y 2.5/1 to 5Y 3/1 very moist silt loam or silty clay loam; distinct 10YR to 7.5YR 3/4 mottles

Topography: Tidal plains, marine terraces and bottomlands

Dominant vegetation, forested wetlands (PFOC):

Tree layer:	Shrub layer:	Herbaceous layer:
<i>Alnus rubra</i>	<i>Amelanchier alnifolia</i>	<i>Carex obnupta</i>
	<i>Lonicera involucrata</i>	
	<i>Sorbus aucuparia</i>	

Dominant vegetation, scrub-shrub wetlands (PSSR):

Tree layer:	Shrub layer:	Herbaceous layer:
<i>Picea sitchensis</i>	<i>Salix hookeriana</i>	<i>Carex obnupta</i>
	<i>Lonicera involucrata</i>	<i>Potentilla pacifica</i>
	<i>Rubus spectabilis</i>	

Dominant vegetation, emergent wetlands (E2EMP, E2EMN):

Herbaceous layer:
Deschampsia cespitosa
Potentilla pacifica
Carex obnupta
Juncus effusus

Comments:

This wetland complex lies at the southwest corner of the study area, adjacent to Tillamook Bay. Portions of this wetland are significant remnants of a diverse native tidal prairie community. A broad expanse of this native prairie covers over 20 acres extending from about 550' south of Salmon Street south to about 500' south of the study area boundary, and from Tillamook Bay inland about 1200'. The fact that this wetland is undisturbed and contiguous, with a wide buffer zone of forested and scrub-shrub wetland, increases its value as an example of the

DOU2 (continued)

native flora of the Oregon coast. According to Franklin and Dyrness (1988), this type of tideland marsh community is little-known to scientists. Therefore, this wetland community has the potential to provide unique scientific and educational opportunities of statewide, national and even global significance.

A DSL site visit (determination #94-0385) in 1994 found wetlands on the site. Sample point DOU2-3 best characterizes the native tidal prairie community. Associated species include *Agrostis alba*, *Juncus balticus*, *Hordeum brachyantherum*, and *Distichlis spicata*. Deep, well-defined tidal channels are found throughout the emergent wetland, and tidal debris is scattered throughout the community. Hydrology and soils appear to be undisturbed. Scrub-shrub and forested wetland communities are found at the margins of the tidal prairie. Scrub-shrub wetland areas are characterized by sample points DOU2-4 and DOU2-6; associated species include *Alnus rubra*, *Rubus laciniatus*, *Oenanthe sarmentosa*, and *Athyrium filix-femina*. Openings within the scrub-shrub wetlands are dominated by *Carex obnupta* and *Oenanthe sarmentosa*.

The southeast part of the wetland is forested; this forested wetland continues across the study area boundary to the south. The northeast corner of the wetland grades into a forested wetland/upland mosaic adjacent to Warren Avenue and Highway 101; the upland and wetland areas in the mosaic are characterized by sample points DOU2-7 and DOU2-8, respectively. Associated species in the wetland portions of the mosaic include *Rubus laciniatus* and *Spiraea douglasii*. *Sorbus aucuparia* (the cultivated mountain ash) was dominant in the forested wetland at the sample point. However, this species is probably not typical of the forested wetland as a whole, but is rather a reflection of the sample point's proximity to the urban area.

Adjacent uplands include upland hay fields at the northwest edge of the wetland, dominated by *Agrostis alba*; urban development north of the wetland; and Highway 101 and the railroad grade to the east. Wetland plant communities continue south beyond the study area boundary. Upland forest is also intermingled with wetland in a mosaic as described above; the upland portions of the mosaic are dominated by *Tsuga heterophylla*, *Alnus rubra*, *Picea sitchensis*, *Pyrus fusca*, *Gaultheria shallon*, *Rubus spectabilis*, and *Polystichum munitum*, with associated species including *Athyrium filix-femina* and *Vaccinium parvifolium*. Typical soils in the upland forest areas were Ginger silt loams, with an unmottled 10YR 3/2 to 5Y 2.5/1 matrix in the surface 18" and distinct mottling below 18". The soil profile in the upland meadow (hay field) was 10YR 2/1 to 2.5YR 2.5/0 silt loam in the surface 23", with prominent mottling below 23".

The transition to upland meadows at the north edge of the wetland is visible on the ground as a transition to redtop (*Agrostis alba*), and in air photos as a textural shift and line of brush at the wetland boundary. The transition to upland forest in the northeast portion of the wetland is visible on the ground and in air photos, and is marked by increasing dominance of *Tsuga heterophylla* and *Picea sitchensis*, and decreasing dominance of *Alnus rubra*, in the tree layer.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: JAC1
Datasheet(s): 1-1 (PEMC, OBS), 6-1 (PEMC), 11-1 (PEMC), 11-2 (UPL)
Field verification date: 7/27/95
Location: Jacoby Creek wetlands
Legal: T1N R10W SE 1/4 of Sec 34 and SW 1/4 of Sec 35; tax map 1N 10 34DA lots 8800, 8900, and 9300; 1N 10 35 lots 900 and 1001; 1N 10 35CB lots 1400, 1600, 1700, 1800; 1N 10 35CC lot 100; and 1N 10 35CD lots 100 and 200
Size: 28.3 A
NWI classification: PEMC, PFOC
Hydrologic basin: Jacoby Creek
Soil: Mapped as Winema; more likely Hebo silty clay loam in level or depressed areas
Typical colors:
0-9" (A, Bw1): 10YR 3/2 to 4/2 moist silt loam; many distinct 7.5YR 3/4, 7.5YR 4/6 and 5YR 3/3 mottles
9"+ (Bw2): 10YR 4/1 and 2.5Y 5/2 moist silty clay loam; many prominent 7.5YR 5/8 to 7.5YR 3/4 mottles
Topography: Bottomland

Dominant vegetation, emergent wetlands (PEMC):

Herbaceous layer:

Holcus lanatus
Agrostis stolonifera
Scirpus microcarpus
Ranunculus repens
Lotus corniculatus

Comments:

This wetland complex follows Jacoby Creek from the east edge of the study area to the confluence of Jacoby and Patterson Creeks just west of Ninth Street. It includes patches of emergent wetland along the banks of the creek; areas of wetland/upland mosaic within woodlands at the east edge of the study area; forested wetland on flats bordering Jacoby Creek between Ninth Street and Twelfth Street; and emergent wetland in cleared land adjacent to suburban development.

Due to lack of landowner permission, wetlands along Jacoby Creek from Ninth Street east to Fourteenth Street could not be sampled for this study. However, a wetland delineation conducted in 1995 by Dan Bernards of Metamorphic Corporation on his parcel of land (the north bank of Jacoby Creek between Ninth Street and Thirteenth Street) provided wetland information shown on this report's wetland map. Aerial photo interpretation suggests that much of this wetland has an *Alnus rubra* canopy. The wetland delineation does not specifically describe the wetland plant communities, but does describe the understory species present. Some of these are found in wetlands, including *Lysichiton americanum*, *Oenanthe sarmentosa*, *Athyrium filix-femina*, and *Rubus spectabilis*.

In addition, an area at the south end of the Trade Street right-of-way could not be sampled due to lack of landowner permission; the datasheet for this area (Sample Point 1-1) is marked "OBS", indicating an offsite observational data point. Offsite observation showed some areas of fill and some low areas with hydrophytic vegetation. Mapped soils are hydric, so the area is shown as "PW" or probable wetland on the study area map.

In the emergent wetlands sampled along Jacoby Creek (Sample Points 6-1, 11-1) near its confluence with Patterson Creek, associated species include *Festuca arundinacea*, *Agrostis* spp., *Glyceria* sp., *Holcus mollis*, *Juncus bufonius*, *Veronica americana*, *Lysichiton americanum*, *Athyrium filix-femina*, and *Juncus effusus*. A wetland

JAC1 (continued)

opening in the forest south of Sample Point 7-1 was dominated by *Lysichiton americanum*, *Oenanthe sarmentosa*, *Juncus effusus*, *Ranunculus repens*, *Athyrium filix-femina*, *Rubus spectabilis*, and *Poa* spp.

Wetlands within the forested mosaic at the east edge of the area consisted of a patchwork of springs, seeps and surface drainage features. Wetlands in the mosaic were either emergent openings with the dominants shown above, or were forested wetlands with an understory dominated by *Lysichiton americanum* and *Carex obnupta* under a canopy of *Alnus rubra* and *Picea sitchensis*.

Adjacent uplands include suburban development to the north, upland forest to the south and within the forested wetland/upland mosaic, and upland meadow in a logged area east of Fourteenth Street. This logged area was cut fairly recently (after 1989 but before 1994). The upland meadow east of Fourteenth Street (SP 11-2) is dominated by *Holcus lanatus* and *Agrostis* species, with associated species including *Erechtites minima*, *Digitalis purpurea*, *Rubus spectabilis*, *Rubus laciniatus*, and *Cirsium vulgare*. The soil profile in the upland meadow showed a 10YR 3/3 slightly moist silt loam, unmottled to 13"; below 13" the matrix was 10YR 3/6 matrix with few prominent 5YR 5/8 mottles. Upland forest south of Sample Point 7-1 was dominated by *Picea sitchensis*, *Tsuga heterophylla*, *Menziesia ferruginia*, *Vaccinium parvifolium*, *Polystichum munitum*, *Maianthemum dilatatum*, *Oxalis oregana*, *Athyrium filix-femina*, *Tiarella* sp., and *Stachys* sp.

Characteristics of the wetland/upland transition vary across the wetland. The transition from emergent wetland to upland meadow at the edges of residential development was the most accessible to the project team. This transition was characterized by the vegetation shift described above. Within the bottomland along Jacoby Creek, lack of access prevented direct observation of the transition; boundaries were drawn based on the delineation done by Dan Bernards. The transition to upland forest on the northeast portion of the wetland was marked by increasing dominance of *Tsuga heterophylla* and *Picea sitchensis* and decreasing dominance of *Alnus rubra*, along with a topographic gradient that was apparent on the aerial photos.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: Jacoby Creek channel
Datasheet(s): 5-1 (PFOC, OBS), 7-1 (PFOC, OBS)
Field verification date: 7/25/95
Location: Wetland in stream channel along the length of Jacoby Creek
Legal: T1N R10W, SE 1/4 Sec 34 and SW 1/4 Sec 35
Size: n/a
NWI classification: PFOC
Hydrologic basin: Jacoby Creek
Soil: Hebo silty clay loam and Winema silt loam
Topography: Stream channel

Dominant vegetation, stream banks immediately adjacent to channel (PFOC):

Tree layer:	Shrub layer:	Herbaceous layer:
<i>Alnus rubra</i>	<i>Rubus spectabilis</i>	<i>Ranunculus repens</i> escaped ornamentals in residential areas (e.g., <i>Vinca major</i>)

Comments:

This wetland is a linear feature following Jacoby Creek. In these linear wetland portions, wetland characteristics are confined to the stream channel, with little wetland development along the steep banks. In some areas the creek banks are low and broad, forming larger wetland areas; these wetlands are described separately.

Due to lack of landowner permission for access, portions of this wetland could not be accessed for soil and hydrology sampling. However, since wetland hydrology is present in the stream channel, hydric soils are assumed and the entire stream channel is shown as a linear wetland feature.

Associated species on the banks of the creek include *Picea sitchensis*, *Sambucus racemosa*, *Rubus spectabilis*, *Maianthemum dilatatum*, *Carex obnupta*, *Acer circinatum*, *Vaccinium parvifolium*, *Polystichum munitum*, *Athyrium filix-femina*, *Oxalis oregana*, *Lysichiton americanum*, and *Montia sibirica*. Plant communities on the banks are marginally hydrophytic, becoming non-hydrophytic a short distance from the creek where the banks are steep.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: LAR1
Datasheet(s): 15-1(PFOC), 57-1 (PFOC)
Field verification date: 7/27/95
Location: N bank of Larson Creek, E of railroad crossing
Legal: T1N R10W NE 1/4 Sec 34; tax map IN 10 34AC, lots 800, 900, 901, and 1100
Size: 1.6 A
NWI classification: PFOC
Hydrologic basin: Larson Creek
Soil: Typical colors:
0-8" (A1): 10YR 2/2 saturated sandy loam
8-11" (A2): 10YR 4/1 saturated sandy loam, many prominent 5YR 3/3 and 7.5YR 5/2 mottles; manganese concretions
11-13" (Bw1): mixed 2.5YR 3/6 and 5YR 5/8 matrix, saturated loamy sand
>13" (2C): 5Y 4/1 saturated silty clay, no mottles
Topography: Bottomland, midslope

Dominant vegetation, forested wetlands (PFOC):

Tree layer:

Alnus rubra

Picea sitchensis

Shrub layer:

Rubus spectabilis

Herbaceous layer:

Carex obnupta

Comments:

This wetland is found in the Larson Creek drainage, just east of Larson Cove. The area is at the north edge of the Bay City Urban Growth Boundary. In the bottomland, along the creek itself, the width of the wetland is controlled by the width of the flood plain and the slope of the creek banks; in this portion of Larson Creek the banks are steep on the south side and gentle on the north side. The wetland/upland boundary is marked by the topographic gradient where the flood plain meets the alluvial terrace. Associated species include *Lysichiton americanum*, *Oenanthe sarmentosa*, *Sambucus racemosa*, and *Rubus spectabilis*. Upstream from sample point 15-1, in broader flats adjacent to the creek, the understory vegetation is dominated by *Lysichiton americanum* and *Carex obnupta*.

On the midslope south of Larson Creek, jurisdictional wetlands are limited to small seeps and springs, and the channels and banks of tributary drainages (e.g., sample point 57-1), with little wetland development outside these areas due to steep slopes. Dominant species are similar to those found in the bottomland; associated species include *Lysichiton americanum*, *Chrysosplenium glechomifolium*, and *Maianthemum dilatatum*.

Adjacent uplands include forested upland to the north, the railroad embankment to the west, and cleared upland areas to the south. There is construction activity on the south side of Larson Creek; it has not directly disturbed the wetland but may impact the hydrology of the immediate area.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: MCC1
Datasheet(s): 58-1 (PSSC), 65 (PEMC, PSSR, OBS), 66 (UPL, OBS)
Field verification date: 7/27/95, 2/20/96
Location: West portion of McCoy Creek drainage (areas adjacent to Warren St., and west to Tillamook Bay)
Legal: T1S R10W NW 1/4 Sec 2 and NE 1/4 Sec 3; tax map 1S 10 2BA lots _____; 1S 10 2BC lots 100, 3000 and 3800; 1S 10 2BD lot 600; and 1S 10 3AA lots 2400, 2500, 2600, 2700 and 2800
Size: 3.1 A
NWI classification: PEMC, PSSC
Hydrologic basin: McCoy Creek
Soil: Hebo silty clay loam
Typical colors:
0-8" (A1): 2.5Y 3/1 very moist silt loam; few distinct 10YR 4/4 mottles
8->18" (A2): 5Y 2.5/1 very moist silty clay loam; few, distinct 7.5YR 3/4 mottles
Topography: Footslope and bottomland

Dominant vegetation, scrub-shrub wetlands (PSSC):

Shrub layer:	Herbaceous layer:
<i>Salix hookeriana</i>	<i>Carex obnupta</i>
<i>Salix</i> spp.	<i>Athyrium filix-femina</i>
<i>Spiraea douglasii</i>	<i>Phalaris arundinacea</i>
	<i>Juncus</i> sp.

Comments:

This wetland includes three similar scrub-shrub wetlands within the drainage basin of an unnamed stream (called McCoy Creek in this LWI) that flows west between Tillamook Avenue and McCoy Avenue. The three wetland areas included in this description are a relatively large wetland north of McCoy Avenue and east of Warren Street; a small wetland immediately southeast of the junction of Wood Street and Warren Street; and a partially filled wetland between the McCoy Avenue and Tillamook Avenue rights-of-way between Highway 101 and Tillamook Bay.

McCoy Creek is a linear wetland feature along much of its length, with little or no wetland development along its banks. It is ditched, tiled and culverted in various portions of its upper reach, but broadens as it reaches footslopes and bottomland near McCoy Avenue to form the first scrub-shrub wetland (Sample Point 58-1). Associated species in this wetland include *Rubus spectabilis*, *Lysichiton americanum*, and *Spiraea douglasii*.

The second scrub-shrub wetland, which is dominated by *Carex obnupta* and *Salix* species, is found immediately southeast of the junction of Wood Street and Warren Street. This small wetland appears to derive its hydrology from surface and subsurface flow from the hillslope to the east, as well as impoundment by Warren Street.

McCoy Creek is culverted under Warren Street. West of Warren, the creek follows a narrow, steep-sided channel through a residential property, and is then culverted under industrial land past Highway 101.

The third scrub-shrub wetland is found just north of McCoy Avenue and west of the railroad tracks paralleling Highway 101. This wetland has been disturbed and partially filled. The filled area begins near the sewage treatment plant and extends northwards towards Tillamook Avenue. Gerald Black of the U.S. Army Corps of Engineers visited the site in August 1995 (8/16/95 letter from Gerald Black, copied to Bill Parks at DSL) and staked a wetland boundary in the southeast portion of the site just west of the fill. An observational data point for the unfilled portions of this wetland (sample point 65) showed a larger area of wetland north of the filled area,

MCC1 (continued)

dominated by *Carex obnupta* and *Salix* species. The perimeter of the fill is dominated by *Spiraea douglasii*, *Carex obnupta*, *Phalaris arundinacea*, and *Juncus* species, with scattered *Picea sitchensis* saplings. Mapped soils for this area are hydric, so the area is shown as "PW" or probable wetland on the study area map.

Uplands adjacent to the MCC1 wetlands include suburban development and roads, industrial and municipal facilities, vacant upland meadows, and vacant shrub lands and wooded areas between McCoy Avenue and Williams Avenue. Near McCoy Avenue and Warren Street, the boundary between the wetland and adjacent uplands is generally abrupt, marked by dense blackberry thickets and transition from bottomland or footslope to midslope. The wetland boundary for the area west of Highway 101 was marked by a shift to *Rubus discolor* thickets on the east and Tillamook Bay on the west.

Sample point 66 was an observational data point in a dense stand of salmonberry on the midslope between Williams Avenue and McCoy Avenue. *Rubus spectabilis* was the sole dominant, with scattered *Sambucus racemosa*, *Vaccinium parvifolium*, *Ilex* seedlings, *Polystichum munitum*, *Hedera helix*, and *Maianthemum dilatatum* at the upper edges of the slope. A deep sink hole at the base of the slope showed a subterranean stream flowing about 4 feet below the surface. The mapped soil type is Winema silt loam; there is no evidence of hydric inclusions. The topographic position and the intermittently exposed subterranean drainage suggest strong subsurface flow. This area was determined to be upland based on the vegetation, mapped soil type and observed hydrology.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: MCC2
Datasheet(s): 50-1(PEMCx), 50-2 (UPL)
7/26/95
Location: E of sewage lagoons, about 30' W of railroad tracks
Legal: T1S R10W west 1/2 Sec 2; tax map 1S 10 2BC lot 3600 and 1S 10 2CB lot 200
Size: 0.8 A
NWI classification: PEMCx
Hydrologic basin: McCoy Creek
Soil: formerly Ginger silt loam (excavated)
Typical colors:
0-6" (Ap): 2.5Y 2/1 loam; common, faint 7.5YR 3/4 mottles
6-14" (AB): 2.5Y 2.5/1 loam to clay loam; common, distinct 10YR 4/6 mottles
14-17" (Bt): 5Y 2.5/1 clay; many prominent 10YR 4/6 mottles
>17" (Btg): 5Y 4/1 clay; many, prominent 10YR 4/6 mottles
Topography: Swale

Dominant vegetation, emergent wetlands (PEMCx):

Herbaceous layer:

Lotus corniculatus
Potentilla pacifica
Carex obnupta

Comments:

This wetland is located in a created drainage swale just east of the city sewage lagoons. The swale was excavated during construction of the lagoons; it forms a long narrow depression parallel to the east edge of the sewage lagoon.

A thin strip of scrub-shrub wetland lies east of the emergent wetland along the railroad tracks. Access to this community was difficult due to fencing, ditching and railroad/highway traffic, so this area was not sampled. However, observation from the west side showed a plant community dominated by *Phalaris arundinacea*, *Alnus rubra*, *Spiraea douglasii*, *Rubus spectabilis*, *Rubus laciniatus*, *Sambucus racemosa*, and *Lonicera involucrata*.

Adjacent uplands include the railroad berm (dominated by *Rubus discolor*) to the east, upland meadow at the south end of the sewage lagoon, and the sewage lagoon embankment to the west. The transition to the uplands to the east and west is marked by the edge of the man-made embankments. The transition to the upland meadow is marked by a vegetation shift to a community dominated by *Holcus lanatus* and *Lotus corniculatus*, with associated species including *Dactylis glomeratus*, *Anthoxanthum odoratum*, and *Rubus discolor*. The topsoil in the upland meadow has been truncated during the construction of the sewage lagoon, and now shows relict subsoil conditions near the surface, including distinct mottling above 12 inches. The profile shows 10YR 3/1 unmottled loam in the surface 7 inches, 2.5Y 2.5/1 clay loam with common, distinct 7.5YR 4/6 mottles from 7 to 12 inches, 2.5Y 5/2-3 clay loam with many prominent 5YR 5/8 mottles from 12 to 15 inches, and unmottled 2.5Y silty clay loam below 15 inches. Indicators of wetland hydrology were lacking.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: MCC3
Datasheet(s): 51-1 (UPL), 51-2 (PEMC)
Field verification date: 7/26/95
Location: South of sewage lagoons, just east of Elliott Street
Legal: T1S R10W SW 1/4 Sec. 2; tax map 1S 10 2CB lot 1000, and 1S 10 2CC lot 700
Size: 1.4 A
NWI classification: PEMC
Hydrologic basin: McCoy Creek
Soil: Formerly Coquille silt loam (now diked)
Typical colors:
0-11" (A): 2.5Y 3/1 loam; many 7.5YR 3/4 root stains
11-14" (AB): 2.5Y 3/2 silt loam; many prominent 7.5YR 4/6 mottles
14->20" (2C): 2.5Y 2/0 very moist silt loam, no mottles, high organic matter
Topography: Bottomland, gentle slope to W

Dominant vegetation, emergent wetlands (PEMC):

Herbaceous layer:

Potentilla pacifica
Distichlis spicata
Phalaris arundinacea

Comments:

This wetland is found just east of Elliott Street, south of the sewage lagoons. It is hydrologically separated from the wetland east of the sewage lagoon (MCC2) by a high berm parallel to the south edge of the lagoon. The wetland consists of two openings separated by a finger of upland forest. The northern opening is dominated by *Phalaris arundinacea*; the southern opening is dominated by *Distichlis spicata* and *Potentilla pacifica*. Associated species in the southern opening include *Atriplex patula*, *Carex obnupta* and *Phalaris arundinacea*.

Adjacent upland forest to the east is dominated by *Picea sitchensis*, *Polystichum munitum*, *Gaultheria shallon* and *Vaccinium parvifolium*. Soils in the upland forest are unmottled 10YR 2/2 to 2/1 loam in the surface 15 inches, with unmottled 2.5Y 2/0 loam from 15 to 20 inches and unmottled 10YR 3/3 silt loam below 20 inches. Despite the dark-colored topsoil, this site did not show evidence of extended wetness.

The transition from wetland meadow to upland forest is marked by the vegetation shift from herbaceous cover to woodland.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: MCC4
Datasheet(s): 52-1(E2EMP)
Field verification date: 7/26/95
Location: West of Elliott Street, north of Spruce Street, south of sewage lagoons
Legal: T1S R10W SW 1/4 of Sec 2; tax map 1S 10 2BC lot 3700; 1S 10 2CB lots 500 and 600; and 1S 10 2CC lots 800 and 900
Size: 6.0 A
NWI classification: E2EMP
Hydrologic basin: Tidal prairie
Soil: Coquille silt loam
Typical colors:
0-1" (A1): 2.5Y 2/0 unmottled loam
1-12" (A2): 2.5Y 3/2 silt loam; few faint 7.5YR 4/6 mottles
12-16" (AB): 2.5Y 3/1 very moist silt loam; common, distinct 7.5YR 4/6 mottles
16->20" (Bw): 2.5Y 5/2 saturated silt loam; many, prominent 7.5YR 3/4 mottles
Topography: Low marine terrace

Dominant vegetation, emergent wetlands (E2EMP):

Herbaceous layer:

Deschampsia cespitosa

Potentilla pacifica

Comments:

This wetland is a significant remnant of diverse native tidal prairie community. Although it is small in size, its high floral diversity and its ideal location for public viewing (adjacent to Elliott Street) give it particularly high potential as a scientific and educational resource. The proximity of the sewage lagoons may increase the potential of this area being set aside as a community resource. A broad expanse of similar native prairie covers about 20 acres 1/4 mile south of this site, but floral diversity appears to be higher in this small relict prairie.

The wetland is a relict tidal prairie with wetland hydrology related to high tides. Associated species include *Triglochin maritimum*, *Juncus balticus*, *Hordeum brachyantherum*, and *Agrostis* species. Deep, well-defined tidal channels cross the wetland; the margins of the wetland have some scrub-shrub vegetation and there are areas of *Phalaris arundinacea* along the west edge of the wetland. Except for slight upgradient diversion by Elliott Street, hydrology and soils appear to be undisturbed.

Constructed embankments and roads mark the transition to adjacent uplands. These uplands include Elliott Street to the east, embankments at the margins of the sewage lagoons to the north, and Spruce Street to the south. Upland forest is found east of Elliott Street; this forest is described on the MCC3 summary sheet.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: MCC5
Datasheet(s): 60 (PEMC), 61 (UPL), 62 (PEMC)
Field verification date: 2/20/96
Location: North of Tillamook Avenue and just west of Bewley Street; between Tillamook and McCoy Avenue, west of Bewley Street
Legal: T1S R10W NW 1/4 of Sec 2; tax map 1S 10 2BD lots 201 and 900
Size: 0.6 A
NWI classification: PEMC
Hydrologic basin: McCoy Creek
Soil: Hebo silty clay loam
Typical colors:
0-8" (A1): 10YR 2/2 saturated silt loam, many 7.5YR 3/4 mottles; standing water at 6"
8-14" (A2): 10YR 2/1 saturated silt loam, common 7.5YR 4/4-6 mottles
14-18"+ (A3): 10YR 2/1 saturated silt loam, common 7.5YR 4/4-6 mottles; many N 3/0 mottles
Topography: Bottomland, backslope

Dominant vegetation, emergent wetlands (PEMC), bottomland:

Herbaceous layer:

Ranunculus repens
Scirpus microcarpus

Dominant vegetation, emergent wetlands (PEMC), backslope seepage area:

Herbaceous layer:

Agrostis tenuis
Holcus lanatus

Comments:

This wetland is associated with two small drainages which are tributary to McCoy Creek. The larger drainage flows west, beginning near the intersection of Doughty Road and Bewley Street, across agricultural and vacant land. At the top of the hill, just west of Bewley Street, is a backslope seepage area marked as "PW" (for probable wetland). This area shows marginal, FAC-dominated wetland vegetation and unmottled low-chroma soils. Although these are weak wetland indicators, the soil profile shows a layer of fairly impermeable unconsolidated parent material at a depth of about 9 inches. This impermeable layer appears likely to create a seasonally high perched water table. Further investigation is needed to determine the wetland status of this area; the area is marked as PW because of the marginal vegetation and soil indicators.

At the foot of the slope west of Bewley Street, this drainage broadens in bottomland to form an emergent wetland. This area is dominated by *Ranunculus repens* and *Scirpus microcarpus*. Soils, vegetation and hydrology all provide strong wetland indicators for this area.

The second, smaller drainage forms emergent wetlands located north of Tillamook Avenue. This drainage runs through a steep-sided gully and is fed by surface and subsurface flow. Vegetation in the drainageway includes *Lolium multiflorum* (seeded), as well as *Polygonum sachaliense* or *P. cuspidatum*.

Adjacent uplands include forested areas north of Tillamook Avenue, and vacant meadow and grazed pasture south of Tillamook Avenue. The transition to these uplands is marked by a sharp topographic gradient where bottomland meets footslopes. The vacant meadow at Sample Point 61 is dominated by *Dactylis glomerata* and *Agrostis tenuis*, with associated species including *Rubus laciniatus*, *Crataegus* species, *Ranunculus repens*. The soils here are Winema silt loams; the profile shows low chroma unmottled silt loam. Despite the low chroma these soils are

MCC5 (continued)

noticeably well-drained; at the time of field sampling, despite recent heavy rain and inundation in most wetlands, these soils were moist but not saturated.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: PAT1
Datasheet(s): 13-1 (PEMC), 13-2 (UPL)
Field verification date: 7/27/95
Location: South of Main Street, between 11th and 12th Street
Legal: T1N R10W SW 1/4 Sec 35; tax map 1N 10 35CB lot 1300
Size: 0.1 A
NWI classification: PEMC
Hydrologic basin: Patterson Creek
Soil: Hebo silty clay loam (mapped as Winema)
Typical colors:
0-5" (A): 10YR 2/1 saturated silty clay loam, no mottles
5-12" (Bw1): 10YR 3/1 saturated silty clay loam; many distinct 5YR 3/3 and 10YR 4/6 mottles
>12" (Bw2): 5Y 4/1 and 5Y 5/1 saturated silty clay
Topography: Bottomland

Dominant vegetation, emergent wetland (PEMC):

Shrub layer:	Herbaceous layer:
<i>Rubus discolor</i>	<i>Lysichiton americanum</i>
	<i>Equisetum telmateia</i>
	<i>Athyrium filix-femina</i>

Comments:

This wetland occupies a small depression just south of Main Street; the low wet area is surrounded by a ring of *Alnus rubra* and *Picea sitchensis*. The source of wetland hydrology appears to be groundwater discharge to the surface from seeps or springs. Drainage from the wetland is most likely north to a ditch on the south side of Main Street, which then drains west into Patterson Creek near its confluence with Jacoby Creek.

Associated species include *Carex obnupta*, and *Alnus rubra* and *Picea sitchensis* at the margins of the wetland.

Adjacent uplands include woodland to the north (along Main Street), and a home site to the south. The upland woods are dominated by *Picea sitchensis*, *Ilex* sp., *Polystichum munitum*, *Vaccinium parvifolium*, *Rubus ursinus*, and *Menziesia ferruginea*. The edge of the upland woods shows a transitional plant community dominated by *Rubus discolor*, *Maianthemum dilatatum*, *Scirpus microcarpus* and *Equisetum telmateia*, with *Alnus rubra* and *Picea sitchensis* becoming increasingly dominant in the drier woods. The wetland boundary was placed within the transitional plant community.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: PAT2
Datasheet(s): 14-1 (PEMC); PFOC
Field verification date: 7/27/95
Location: East of 7th Street, between Ocean Street and High Street; between 5th and 7th along High ROW
Legal: T1N R10W Sec 34; tax map 1N 10 34DA lots 100, 200, 3900 and 3901; 1N 10 34AD lots 2700, 4200, 4300, 4400, 4500, 4700, and 4800; and 1N 10 35CB lots 103 and 200
Size: 2.1 A
NWI classification: PEMC
Hydrologic basin: Patterson Creek
Soil: Hebo silty clay loam
Typical colors:
0-15" (A): 5Y 4/1 very moist to saturated silty clay; 10YR 5/8 and 4/6 mottles
>15" (Bw): variegated matrix of 10YR 4/1, 10YR 4/6 and 7.5YR 5/8 very moist to saturated silty clay
Topography: Bottomland

Dominant vegetation, emergent wetlands (PEMC):

Herbaceous layer:

Juncus effusus
Scirpus microcarpus
Hypericum anagalloides

Dominant vegetation, forested wetlands (PFOC):

Tree layer:

Alnus rubra
Picea sitchensis
Tsuga heterophylla

Herbaceous layer:

Phalaris arundinacea
Lysichiton americanum

Comments:

This wetland is found on the east edge of Bay City urban development, in an area of new residential development. The larger portion of this wetland is emergent wetland located east of 7th between Ocean and High. Although this area was undisturbed at the first field date in July 1995, by February 1996 much of the area had been graded and filled. Wetland hydrology at this site probably originates from subsurface flow from areas upslope, which then pools on the heavy clay soils on the site. Associated species include *Lotus corniculatus*, *Carex obnupta*, *Holcus lanatus*, and *Anthoxanthum odoratum*.

Adjacent uplands include graded bare ground in the new construction area to the east; a large fill pile to the north; brushy areas dominated by *Pteridium aquilinum*, *Rubus discolor*, *Rubus ursinus*, and *Cytisus scoparius* to the north and south; and existing housing to the west.

Another portion of this wetland is forested, between 5th and 7th, along the High Street right-of-way. Uplands adjacent to this forested wetland are also forested, and have either a coniferous canopy (dominated by *Picea sitchensis* and/or *Tsuga heterophylla*, with an understory of *Maianthemum dilatatum* and *Polystichum munitum*) or an alder canopy with *Rubus spectabilis* understory.

The wetland boundary is marked by a topographic shift from bottomland to footslope at the north edge of the site (now partially obscured by fill material), and by existing home sites to the west. At the south and east edges, the boundary is marked by a more gradual shift to upland vegetation described above. This vegetation shift is visible on air photos, which were used to draw the wetland boundary.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: PAT3
Datasheet(s): 3-1 (UPL), 3-2 (PFOC), 8-1 (PFOC), 10-1 (PFOC), 10-2 (PEMC)
Field verification date: 7/26 and 7/27/95
Location: Between Trade and Pacific Streets, 2nd to 6th Street
Legal: T1N R10W SE 1/4 Sec. 34; tax map 1N 10 34DA lots 4900, 6600, 6700, 6800, 6801, 6900, 7000, 7100; and 1N 10 34DB lots 6200 and 6300
Size: 2.4 A
NWI classification: PFOC, PEMC
Hydrologic basin: Patterson Creek
Soil: Hebo silty clay loam inclusions in Winema silt loam
Typical colors, forested wetlands:
0-10" (A): 10YR 2/1 to 10YR 3/2 very moist silt loam to silty clay loam; distinct 7.5YR 3/4 to 4/6 mottles
10-17" (Bw): 10YR 4/1 saturated loam to silty clay loam; many prominent 5YR 3/3 and 7.5YR 4/6 to 7.5YR 6/8 mottles
Typical colors, emergent wetland:
0-5" (A): 10YR 3/2 saturated loam, no mottles
5->18" (Bw): N 4/0 saturated silt loam+; 5G 5/2 mottles
Topography: Alluvial hillslope and bottomland

Dominant vegetation, forested wetlands (PFOC):

Tree layer:

Alnus rubra

Shrub layer:

Rubus discolor

Rubus spectabilis

Salix sitchensis

Salix sp.

Herbaceous layer:

Lysichiton americanum

Carex obnupta

Athyrium filix-femina

Oenanthe sarmentosa

Dominant vegetation, emergent wetlands (PEMC):

Herbaceous layer:

Phalaris arundinacea

Equisetum telmateia

Comments:

This wetland is found within the developed residential area of Bay City, between Trade and Pacific, east of Second Street and west of Sixth Street. Although the wetland consists of three discontinuous areas, all three areas share similar vegetation and hydrology. Groundwater discharge and surface flow from the hillslopes above provides wetland hydrology; soils appear to be Hebo inclusions within the mapped Winema silt loam. Vegetation is generally forested, but there is an area of emergent wetland on tax map 1N 10 34DA lot 4900.

Associated species in forested wetland areas include *Pyrus malus*, *Sambucus racemosa*, *Rubus laciniatus*, *Equisetum telmateia*, and *Polystichum munitum*. In the emergent wetland, associated species include *Dryopteris austriaca*, *Carex obnupta*, *Rubus laciniatus*, *Lotus corniculatus*, and *Sambucus racemosa*.

Adjacent uplands include upland forest and vacant land on adjacent areas, and residential development to the north, east and west. Upland forest, represented by sample point PAT3-3-1, is dominated by *Alnus rubra* and *Phalaris arundinacea*, with associated species including *Sambucus racemosa*, *Rubus parviflorus*, and *Rubus discolor*. Soils in the upland forest are unmottled and fit the mapped Winema silt loam profile. At sampling, the soil was dry from 0-10" and slightly moist below 10", with matrix color ranging from 10YR 3/3 at the surface to 10YR 3/4 at 10". (continued next page)

PAT3 (continued)

Patterson Creek lies south of two of the three areas; there is some fill material along the banks of the creek in the middle wetland area (between 4th and 5th Street). At the time of field verification, part of this filled area had been marked as wetland (flagging marked "wetland boundary" was present), but soils within the demarcated wetland were solid fill material. Dominant vegetation along the creek in the filled area includes *Alnus rubra*, *Rubus spectabilis*, *Rubus discolor*, *Carex obnupta*, *Salix sitchensis* and scattered *Phalaris arundinacea*.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: PAT4
Datasheet(s): 9-1 (PEMR), 9-2 (PFOR), 2-2 (UPL)
Field verification date: 7/26/95
Location: Slough immediately east of Highway 101, S of Trade Street, including dredge spoil disposal area
Legal: T1N R10W SE 1/4 of Sec. 34; tax map 1N 10 34DB lots 6300, 6600, 6700, 6701, 6702, 7000, 7200, 7300, 7400, and 7700; and 1N 10 34DC lots 200, 400, 500, 600, 700, 800, 900, 1000, 1100 and 1200
Size: 5.0 A
NWI classification: PEMR, PFOR, PSSR
Hydrologic basin: Patterson Creek
Soil: Brenner silt loam inclusions in Coquille silt loam
Typical colors, emergent wetland:
0-12" (A): 2.5Y 3/2 moist to very moist silt loam; many prominent 7.5YR 3/4 mottles
12-15" (AB): 2.5Y 4/1 and 3/2 very moist silt loam+; many prominent 7.5YR 3/4 mottles
>15" (Bw): 7.5YR 3/2 saturated silt loam; few distinct 5YR 3/3 mottles
Typical colors, forested wetland:
0-2" (A1): 10YR 2/2 very moist to saturated silt loam; few distinct 10YR 3/6 mottles
2-15" (A2): 10YR 3/1 saturated silt loam; many prominent 10YR 3/6 and 4/6 mottles
>15" (Bw): 5G 5/1 saturated silty clay loam; many prominent 5YR 3/4 and 3/3 mottles
Topography: Bottomland

Dominant vegetation, forested wetlands (PFOR):

Tree layer:	Herbaceous layer:
<i>Salix</i> sp.	<i>Carex obnupta</i>

Dominant vegetation, emergent wetlands (PEMR):

Herbaceous layer:
Alopecurus geniculatus
Phalaris arundinacea
Agrostis stolonifera

Comments:

This wetland is found at the west edge of Bay City adjacent to Highway 101. It lies in a swale running northwest to southeast along Highway 101 and draining to Patterson Creek. A raised berm runs from northwest to southeast through the wetland, roughly separating emergent wetland (to the west) from forested wetland (to the east). The west portion of this wetland is marked as a dredge spoil disposal area. Associated species in the emergent wetland include *Typha latifolia*, *Juncus effusus*, *Eleocharis palustris*, *Lotus corniculatus*, and *Potentilla pacifica*. Associated species in the forested wetland include *Phalaris arundinacea*, *Lysichiton americanum*, *Athyrium filix-femina*, and *Rubus spectabilis*.

A spring that arises just west of the Center Street right-of-way and about halfway between Main Street and the Pacific Street right-of-way also meets jurisdictional wetland criteria.

PAT4 (continued)

Adjacent uplands include the raised berm running through the wetland, residential development to the north and Highway 101 to the west. The transition to these upland areas is generally marked by a sharp topographic gradient. At the east end of the wetland (at the west end of the city park), the transition to upland is marked by a vegetation shift to a community dominated by *Alnus rubra*, *Lonicera involucrata*, *Pyrus malus*, and *Carex obnupta*, with associated species including *Maianthemum dilatatum*, *Tolmiea menziesii*, *Lysichiton americanum*, *Ribes* sp., and *Rubus discolor* (see sample point 2-2). Soils in this adjacent upland were unmottled, very moist 10YR 3/2 loam above 15" and 10YR 3/1 saturated silt loam with many prominent 5YR 3/3 mottles below 15".

This wetland shows evidence of human modification in the past (excavation, diking, upgradient runoff diversion, dredge material disposal), but has not been recently disturbed.

Bay City Local Wetland Inventory Summary: Wilson/Scoles/Brophy Study

Wetland code: Patterson Creek channel
Datasheet(s): 12-1 (PFOC, OBS), 2-1 (PEMC, OBS), 4-1 (PFOC)
Field verification date: 7/25/95, 7/27/95
Location: Wetland in stream channel along the length of Patterson Creek
Legal: T1N R10W SE 1/4 Sec 34 and SW 1/4 Sec 35
Size: n/a
NWI classification: PFOC
Hydrologic basin: Patterson Creek
Soil: Winema silt loam, Hebo silty clay loam, Coquille silt loam, possible Quillayute silt loam inclusions
Topography: Stream channel

Dominant vegetation, forested wetlands immediately adjacent to channel (PFOC):

Tree layer:	Shrub layer:	Herbaceous layer:
<i>Alnus rubra</i>	<i>Rubus discolor</i>	<i>Ranunculus repens</i>
	<i>Salix sitchensis</i>	

Dominant vegetation, emergent wetlands immediately adjacent to channel (PEMR):

Herbaceous layer:

Glyceria sp.
Carex stipata
Ranunculus repens

Comments:

This wetland is a linear feature following Patterson Creek. In these linear wetland portions, wetland characteristics are confined to the stream channel, with little wetland development along the steep banks. In some areas the creek banks are low and broad, forming larger wetland areas; these wetlands are described on other summary sheets.

Due to lack of landowner permission for access, portions of this wetland could not be accessed for soil and hydrology sampling. However, since wetland hydrology is present in the stream channel, hydric soils are assumed and the entire stream channel is shown as a linear wetland feature.

Associated species along the forested stream banks include *Equisetum telmateia*, *Agrostis* sp., *Holcus lanatus*, *Rumex obtusifolius*, *Athyrium filix-femina*, and *Pteridium aquilinum*. Associated species in the emergent wetland (sampled within the city park) include *Phalaris arundinacea* and *Alopecurus geniculatus*.

Plant communities on the stream banks are marginally hydrophytic, becoming non-hydrophytic a short distance from the creek where the banks are steep. Upland forests adjacent to the stream are dominated by *Alnus rubra*, *Rubus discolor*, *Sambucus racemosa*, and *Salix* species.

APPENDIX 4: DATA SHEETS

BAY CITY, OREGON WETLAND INVENTORY

No Access allowed

SITE DATA SHEET

T. 1 N, R. 10W, SW 1/4 of Sec. 35 (18) Tillamook County Tax Lot: 1600 & 1700 Site No.: 01 (JACI) 1-1 (PEMC)
 Drainage Basin & Plot Location: Jacoby - E/W of 13th S of Trade
 Normal Circumstances? No Atypical Situation? ✓ Problem Area? Sample Point: obs-1
 Land Use & Condition: Partial fill (on N side); edge of submergence area

VEGETATION In low, unfilled areas

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>XOLA</u>	<u>FAC</u>	<u>25</u>	<u>H</u>	<u>✓</u>	<u>JUBU</u>	<u>FACW</u>	<u><1</u>	<u>H</u>	
<u>SCMI</u>	<u>OBL</u>	<u>15</u>	<u>H</u>	<u>✓</u>	<u>VEAM</u>	<u>OBL</u>	<u><1</u>	<u>H</u>	
<u>Xyris sp.</u>	<u>FACW-FAC+</u>	<u>20</u>	<u>H</u>	<u>✓</u>	<u>LYAM</u>	<u>OBL</u>	<u><1</u>	<u>H</u>	
<u>RARE</u>	<u>FACW</u>	<u>15</u>	<u>H</u>	<u>✓</u>	<u>ATFI</u>	<u>FAC</u>	<u><1</u>	<u>H</u>	
<u>Glyceria sp.</u>	<u>OBL-FACW</u>	<u>10</u>	<u>H</u>		<u>JUEF</u>	<u>FACW</u>	<u><1</u>	<u>H</u>	

Hydrophytic Vegetation? Yes 4/14 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	in.		
	in.		
	in.		
	in.		
	in.		

Other Indicators:

 None Gleyed matrix Histosol/Histic epipedon
 Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: possible Hebo silt loam inclusion Hydric Soils List? yes
 Drainage Class: very poorly drained Criteria Depth: 0 in.
 Hydric Soil? likely Rationale: has suffiz. pos. indic.
 Comments:

HYDROLOGY

Landform/Topography: bottomland Wetland Drainage Pattern: bottomland
 Inundation and Depth: 0-6 in. Water Table & Depth: AT SURFACE in.
 Hydrology Alteration:
 Other Indicators: X None Sediment deposits Water-stained leaves
 Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: unk. in.

Wetland Hydrology? Yes Rationale:
 Comments: standing water in low spots - scraped (elk & raccoon tracks) area & root wad hole

SUMMARY

Wetland? PW Rationale: Has positive visual indicators
 Comments: Observations from 13th ROW & Trade ROW

Date(s): 7-25-95 Field Investigator(s): LW LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☒ No ☐
- W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☐ PFO ☒ Other ☐
- W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☐ <25 ft. ☒
- F30) Stream channel: NA Natural ☐ Partly modified ☐ Extensive modifications ☐
- F31) Stream channel % shaded: NA
- H36) Evidence of flooding? NA Yes ☐ No ☐ Describe
- H37) Outflow restricted? " Yes ☐ No ☐
- H38) Inflow restricted? " No ☐ Yes, can be remedied ☐ Yes, cannot be remedied ☐
- P42) Hazards to public? No ☒ Yes ☐ Describe
- P44) Access exist/feasible: Non-ADA ☒ ADA ☐ Obs. only ☐ Barriers: rough ground
- R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
- A52) Rural area visual contrast: S Significant ☒ Limited ☐ Little/none ☐
- A53) Urban landscape: N Open/natural ☐ Groomed ☒ None ☐
- A54) Visual detractors? Yes ☒ No ☐ A55) Easily removed? Yes ☒ No ☐

From primary viewing area:

- A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
- A57) Noise: Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐
- A58) View: Whole/most of wetland ☐ Small portion ☒ Describe
- A59) No. of Cowardin classes visible: 2 or more ☒ 1 ☐

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34(DA) Tillamook County Tax Lot: 6600 Site No.: #02 ^{PAT drainage channel}
 Drainage Basin & Plot Location: Patterson - City Park S. of Trade between 3rd & 4th ^{PAT-02-1 (OBS)}
 Normal Circumstances? Atypical Situation? Y Problem Area? Sample Point: OBS-1 ^{PEMC}
 Land Use & Condition: City Park - mowed grass under scattered alder & elms; mowed to creek edge.

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
<u>Park grasses, elm alder</u>	<u>R, D, I</u>	<u>(a little)</u>	<u> </u>	<u> </u>	<u>Japanese community</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>some remnant elms, which have:</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>glyceria, sp</u>	<u>OBL-FACW</u>	<u> </u>	<u>H</u>	<u>✓</u>	<u>DWAR</u>	<u>FACW</u>	<u> </u>	<u>H</u>	<u> </u>
<u>Carex stipata</u>	<u>OBL</u>	<u> </u>	<u>H</u>	<u>✓</u>	<u>ALGE</u>	<u>OBL</u>	<u> </u>	<u>H</u>	<u> </u>
<u>PARE</u>	<u>OBL</u>	<u> </u>	<u>H</u>	<u>✓</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Hydrophytic Vegetation? Yes 3/13 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL not investigated - public park

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>

Other Indicators: None Gleyed matrix Histosol/Histic epipedon
 Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: mapped as Winema SiL Hydric Soils List:
 Drainage Class: Criteria Depth: in.
 Hydric Soil? likely Rationale: seasonally flooded
 Comments: assume hydric in stream bottom and along bank edge.

HYDROLOGY

Landform/Topography: Stream Wetland Drainage Pattern: stream channel
 Inundation and Depth: ± 12' in. Water Table & Depth: in.
 Hydrology Alteration:
 Other Indicators: None Sediment deposits Water-stained leaves
 Drift lines X Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: in.
 Wetland Hydrology? Yes Rationale: Within stream bed and bank edges
 Comments:

SUMMARY

Wetland? yes Rationale:
 Comments: Only wet area is stream bed and low bank edges

Date(s): 7/25/95 Field Investigator(s): LWLB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☒ No ☐
W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☐ PFO ☐ Other ☐
W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☐ <25 ft. ☒
F30) Stream channel: Natural ☒ Partly modified ☐ Extensive modifications ☐
F31) Stream channel % shaded: 75%
H36) Evidence of flooding? Yes ☐ No ☒ Describe ☐
H37) Outflow restricted? Yes ☐ No ☒
H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
P42) Hazards to public? No ☒ Yes ☐ Describe ☐
P44) Access exist/feasible: Non-ADA ☒ ADA ☐ Obs. only ☐ Barriers: ☐
R49) Trails/view areas? Existing ☒ Potential ☐ No existing or potential ☐
A52) Rural area visual contrast: Significant ☐ Limited ☐ Little/none ☐
A53) Urban landscape: Open/natural ☐ Groomed ☒ None ☐
A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
A57) Noise: Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐
A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34 (DB) Tillamook County, Tax Lot: 6300 Site No.: (PAT) 4-2-2
 Drainage Basin & Plot Location: Patterson - W boundary, N side of Creek - City Park
 Normal Circumstances? X Atypical Situation? Problem Area? Sample Point: 2
 Land Use & Condition: undrained corner lot creek, W boundary, N side of Ck - (10')

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>LOIN</u>	<u>FAC</u>	<u>30</u>	<u>S</u>	<u>✓</u>	<u>LVAM</u>	<u>OBL</u>	<u>5</u>	<u>H</u>	<u> </u>
<u>PYMA</u> <u>Pyrus malus</u>	<u>FACW</u>	<u>25</u>	<u>S</u>	<u>✓</u>	<u>MADT</u>	<u>FAC</u>	<u>5</u>	<u>H</u>	<u> </u>
<u>Ribes</u> <u>sp.</u>	<u> </u>	<u>1</u>	<u>S</u>	<u> </u>	<u>TOME</u> <u>(Pissin bark)</u>	<u>FAC</u>	<u>1</u>	<u>H</u>	<u> </u>
<u>RUDI</u>	<u>FACU</u>	<u>5</u>	<u>S</u>	<u> </u>	<u>ALRU</u>	<u>FAC</u>	<u>65</u>	<u>T</u>	<u>✓</u>
<u>CAOB</u>	<u>OBL</u>	<u>40</u>	<u>H</u>	<u>✓</u>					

Hydrophytic Vegetation?

Comments:

Yes 414 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
Only 1 obligate dominant. other dominants are FAC or NL -
not very strong wetland indicators at the coast.

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-15</u> in.	<u>10 YR 3/2</u>	<u>— 0 — L, very moist</u>
<u>Bw</u>	<u>>15</u> in.	<u>10 YR 3/1</u>	<u>many from 5 YR 3/3. sat. sil</u>
	in.		
	in.		
	in.		

Other Indicators:

X None Gleyed matrix Histosol/Histic epipedon
 Concretions Sulfidic odor Sandy w/high organic content

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

Best resembles Quillayute Series Hydric Soils List? No
Somewhat poorly drained Criteria Depth: 0 in.
No Rationale: Lacks sufficient indicators in upper 10"

HYDROLOGY

Landform/Topography:

Inundation and Depth:

Hydrology Alteration:

Other Indicators:

X None Sediment deposits Water-stained leaves
 Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria:

Wetland Hydrology?

Comments:

18 Days in growing season Depth of Major Portion of Root Zone: 5 in.
No Rationale: lacks positive indicators

SUMMARY

Wetland?

Comments:

No Rationale: Soil and Hydrology lack positive indicators
Hand: - getting wetter to W. (No access to prop.) Park: lawn to East
 Date(s): 7-27-95 Field Investigator(s): LW, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No _____
- W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
- W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
- F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
- F31) Stream channel % shaded: _____
- H36) Evidence of flooding? Yes _____ No _____ Describe _____
- H37) Outflow restricted? Yes _____ No _____
- H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
- P42) Hazards to public? No _____ Yes _____ Describe _____
- P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
- R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
- A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
- A53) Urban landscape: Open/natural _____ Groomed _____ None _____
- A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
- A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
- A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
- A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34 (DA) Tillamook County Tax Lot: 6700 Site No.: 03 (PAT 3) 3-1
 Drainage Basin & Plot Location: S. side of Main, between 4th & 5th, NE corner
 Normal Circumstances? Yes Atypical Situation? — Problem Area? — Sample Point: 1
 Land Use & Condition: —

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>ALRU</u>	<u>FAC</u>	<u>75</u>	<u>T</u>	<u>✓</u>					
<u>SARA</u>	<u>FACU</u>	<u><1</u>	<u>T</u>						
<u>PNAR</u>	<u>FACW</u>	<u>100</u>	<u>H</u>	<u>✓</u>					
<u>RUPA</u>	<u>FAC</u>	<u><1</u>	<u>S</u>						
<u>RUDI</u>	<u>FACU</u>	<u>2</u>	<u>S</u>						

Hydrophytic Vegetation? Yes 21.2 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: —

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A1</u>	<u>0-3</u> in.	<u>10 YR 3/3</u>	<u>None</u> <u>Sil L</u> , <u>dry</u>
<u>A2</u>	<u>3-10</u> in.	<u>10 YR 3/2</u>	<u>None</u> <u>Sil L</u> , <u>dry</u>
<u>Bw</u>	<u>>10</u> in.	<u>10 YR 3/4</u>	<u>None</u> <u>Sil L</u> <u>Sh. X, w. m. s.</u>

Other Indicators: X None — Gleyed matrix — Histosol/Histic epipedon
— Concretions — Sulfidic odor — Sandy w/high organic content

Series/Phase: Winema silt loam Hydric Soils List: No
 Drainage Class: MOD. WELL DRAINED Criteria Depth: 0 in.
 Hydric Soil? No Rationale: LACK SUFFICIENT POSITIVE INDICATORS
 Comments: —

HYDROLOGY

Landform/Topography: BOTTOMLAND, SLIGHTLY SOUTH SLOPING Wetland Drainage Pattern: -NO
 Inundation and Depth: -NO in. Water Table & Depth: -NO in.
 Hydrology Alteration: —
 Other Indicators: X None — Sediment deposits — Water-stained leaves
— Drift lines — Water marks — Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 5 in.
 Wetland Hydrology? NO Rationale: LACKS SUFFICIENT POSITIVE INDICATORS IN CRITERIA DEPTH
 Comments: —

SUMMARY

Wetland? NO Rationale: SOIL AND HYDROLOGY LACK SUFFICIENT POSITIVE INDICATORS
 Comments: —

Date(s): 7/26/95 Field Investigator(s): LW, BD

South, near creek and culvert (E edge of lot), the area marked w/ "wetland boundary" flagging is solid fill material w/ ALRU, RUPA, RUDI, CAOB, PNAR (scattered), and Salix witchensis - not wetland here!

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No _____
- W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
- W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
- F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
- F31) Stream channel % shaded: _____
- H36) Evidence of flooding? Yes _____ No _____ Describe _____
- H37) Outflow restricted? Yes _____ No _____
- H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
- P42) Hazards to public? No _____ Yes _____ Describe _____
- P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
- R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
- A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
- A53) Urban landscape: Open/natural _____ Groomed _____ None _____
- A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
- A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
- A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
- A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34 (PA) Tillamook County Tax Lot: 7100 Site No.: 03 (PAT3-3-2) PFOC
 Drainage Basin & Plot Location: S of main between 4th & 5th NW corner (Patterson)
 Normal Circumstances? Y Atypical Situation? N Problem Area? N Sample Point: 2
 Land Use & Condition: bottomland

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
<u>ALRU</u>	<u>40</u>	<u>FAC</u>	<u>T</u>	<u>✓</u>	<u>ATFI</u>	<u>FAC</u>	<u>10</u>	<u>H</u>	
<u>SALIX</u>	<u>15</u>	<u>OBL-FAC</u>	<u>T</u>	<u>✓</u>					
<u>LYAM</u>	<u>80</u>	<u>OBL</u>	<u>H</u>	<u>✓</u>					
<u>OESA</u>	<u>20</u>	<u>OBL</u>	<u>H</u>	<u>✓</u>					
<u>RUDI</u>	<u>5</u>	<u>FACU</u>	<u>S</u>						

Hydrophytic Vegetation? Yes 414 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>AP</u>	<u>0-4</u> in.	<u>10YR 3/2</u>	<u>com. dist. 7.5YR 4/6: very moist/sat. Si L+</u>
<u>Bw1</u>	<u>4-9</u> in.	<u>10YR 4/1</u>	<u>many gran. 5YR 3/3 7.5YR 4/6: Si L, sat</u>
<u>Bw2</u>	<u>9+</u> in.	<u>10YR 4/1 #5/1</u>	<u>" " 5YR 3/3 7.5YR 4/6: Si L, sat.</u>
	in.		
	in.		

Other Indicators: None ✓ Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: (mapped as Winona S1) Habo silty clay loam inclusion Hydric Soils List? Yes
 Drainage Class: POORLY DRAINED. Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: HAS POSITIVE INDICATORS IN CRITERIA DEPTH.
 Comments:

HYDROLOGY

Landform/Topography: bottomland slightly sloping to S. Wetland Drainage Pattern: bottomland
 Inundation and Depth: Ab in. Water Table & Depth: Not Apparent in.
 Hydrology Alteration: surrounded by built on fill
 Other Indicators: ✓ None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: in.
 Wetland Hydrology? YES Rationale: HAS SUFFICIENT POSITIVE INDICATORS IN CRITERIA DEPTH.
 Comments: SATURATION NEAR SURFACE

SUMMARY

Wetland? YES Rationale: All parameters have sufficient positive indicators.
 Comments:

Date(s): 7/26/95 Field Investigator(s): LW, BD

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No ☒ _____

W22) % Cowardin classes present: POW _____ PEM ☒ PSS ☒ PFO ☒ Other _____

W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. ☒ <25 ft. _____

F30) Stream channel: *NR* Natural _____ Partly modified _____ Extensive modifications _____

F31) Stream channel % shaded: _____

H36) Evidence of flooding? Yes _____ No _____ Describe _____

H37) Outflow restricted? Yes _____ No _____

H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____

P42) Hazards to public? No _____ Yes ☒ Describe *steep banks - blackberry thickets!*

P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only ☒ Barriers: *steep banks*

R49) Trails/view areas? Existing _____ Potential ☒ No existing or potential _____

A52) Rural area visual contrast: *NR* Significant _____ Limited _____ Little/none _____

A53) Urban landscape: Open/natural ☒ Groomed _____ None _____

A54) Visual detractors? Yes ☒ No _____ A55) Easily removed? Yes ☒ No _____

From primary viewing area: *S 3-2* *garbage*

A56) Odors: Natural ☒ Unnatural, occasional _____ Unnatural, continuous _____

A57) Noise: Natural _____ Light+natural _____ Heavy+natural ☒ Heavy intrusive _____

A58) View: Whole/most of wetland _____ Small portion ☒ Describe *forest or shrub blocks view*

A59) No. of Cowardin classes visible: 2 or more ☒ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34(DA) Tillamook County Tax Lot: N of 9400 Site No.: 4 (Patterson Crk. channel)
 Drainage Basin & Plot Location: Patterson Crk., N end of 6th, just below confluence of P & S Crks
 Normal Circumstances? Atypical Situation? Problem Area? Sample Point: 4-1
 Land Use & Condition: Edge of residential area - unlandscaped backyard, steep-sided creek channel.

VEGETATION

Species on N bank:	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>ALRU</u>	<u>FAC</u>		<u>T</u>	<u>X</u>					
<u>RUDI</u>	<u>FACU</u>		<u>S</u>	<u>X</u>					
<u>SAR A</u>	<u>FACU</u>		<u>S</u>	<u>X</u>					
<u>Merah oregonus</u>	<u>NL</u>		<u>H</u>	<u>X</u>					
<u>Salix sp.</u>	<u>FACW (est.)</u>		<u>S</u>	<u>X</u>					

Hydrophytic Vegetation? No 215 = 40 % of domin. species are OBL, FACW, FAC₊ and/or FAC
 Comments: S bank cleared by owners - HOLA, young Salix stems.

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	in.		
	in.		<u>not checked - due to flowing water</u>
	in.		<u>hydric conditions assumed in creek channel.</u>
	in.		<u>Banks of channel too steep to be hydric.</u>
	in.		

Other Indicators: None Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: Hebo silty clay loam Hydric Soils List?: yes
 Drainage Class: poorly drained Criteria Depth: in.
 Hydric Soil? in stream channel Rationale: sufficient positive indicators
 Comments: only

HYDROLOGY

Landform/Topography: stream channel Wetland Drainage Pattern: in.
 Inundation and Depth: 1-2 ft. in. Water Table & Depth: in.
 Hydrology Alteration: none apparent
 Other Indicators: None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: Days in growing season Depth of Major Portion of Root Zone: in.
 Wetland Hydrology? yes Rationale: sufficient positive indicators
 Comments: stream channel has wetland hydrology; banks do not.

SUMMARY

Wetland? stream channel only Rationale: steep banks appear effectively drained
 Comments:

Date(s): 7/25/95 Field Investigator(s): LW LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No _____
- W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
- W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
- F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
- F31) Stream channel % shaded: _____
- H36) Evidence of flooding? Yes _____ No _____ Describe _____
- H37) Outflow restricted? Yes _____ No _____
- H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
- P42) Hazards to public? No _____ Yes _____ Describe _____
- P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
- R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
- A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
- A53) Urban landscape: Open/natural _____ Groomed _____ None _____
- A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
- A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
- A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
- A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34 (PR) Tillamook County Tax Lot: 9300 Site No.: 05 JAC channel
 Drainage Basin & Plot Location: Patterson + Jacoby Confluence (channel = PFOC; OBS)
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: obs - 1
 Land Use & Condition: suburban

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
<u>Alf</u>	<u>FAC</u>	<u>80</u>	<u>T</u>	<u>✓</u>	<u>Madi</u>	<u>FAC</u>	<u>12</u>		
<u>Rusp</u>	<u>FAC+</u>	<u>5</u>	<u>S</u>		<u>Vinca major</u>	<u>NL</u>	<u>25</u>		<u>✓</u>
<u>Sara</u>	<u>FAC</u>	<u>5</u>	<u>S</u>		<u>Caob</u>	<u>OBL</u>	<u>21</u>		
<u>Bromus sp.</u>	<u>UPL-FAC</u>	<u>4</u>	<u>H</u>						
<u>Rare</u>	<u>FACW</u>	<u>20</u>	<u>H</u>	<u>✓</u>					

Hydrophytic Vegetation? Yes 213 = 67 % of domin. species are OBL, FACW, FAC+ and/or FAC

Comments: Six of 8 species are FAC+ or higher, this is transitional community (MIDI usually indicates insufficient hydrob. in coastal communities)

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	in.		
	in.		
	in.		
	in.		
	in.		

Other Indicators:

None Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

Soil mapped as Hebo silty clay loam Hydric Soils List? Yes
Poorly drained Criteria Depth: 12 in.
Yes Rationale: Has positive indicators -
Banks of creek probably effectively drained by creek.

HYDROLOGY

Landform/Topography: stream channel Wetland Drainage Pattern: stream channel
 Inundation and Depth: ~1 ft. in. Water Table & Depth: 1 - in.
 Hydrology Alteration: none

Other Indicators:

X None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria:

Wetland Hydrology?

Comments:

18 Days in growing season Depth of Major Portion of Root Zone: 5 in.
No Rationale: (Yes) in creek, No on banks.
steep banks, no wetland development

SUMMARY

Wetland?

Comments:

NO Rationale: Lacks hydrology parameter, except stream channel.

Date(s): 7/25/95

Field Investigator(s): LW, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No ☒ _____
W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO 100 Other _____
W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. ☒ _____ <25 ft. _____
F30) Stream channel: Natural ☒ _____ Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: 75 _____
H36) Evidence of flooding? Yes _____ No ☒ Describe _____
H37) Outflow restricted? Yes _____ No ☒ _____
H38) Inflow restricted? No ☒ Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No ☒ Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA ☒ ADA _____ Obs. only _____ Barriers: rough topog.
R49) Trails/view areas? Existing _____ Potential ☒ No existing or potential steep banks
A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
A53) Urban landscape: Open/natural ☒ Groomed _____ None _____
A54) Visual detractors? Yes _____ No ☒ A55) Easily removed? Yes _____ No _____

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural _____ Light+natural ☒ Heavy+natural _____ Heavy intrusive _____
A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
A59) No. of Cowardin classes visible: 2 or more _____ 1 ☒ _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N. R. 10W SE 1/4 of Sec. 34 (DA) Tillamook County Tax Lot: 9300 Site No.: 6 (JAC) 6-1
 Drainage Basin & Plot Location: Jacoby Crk., ~ 80' S. of junction w/ Patterson
 Normal Circumstances? Y Atypical Situation? Problem Area? Sample Point: 7
 Land Use & Condition: suburban edge

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>Agst</u>	<u>FAC</u>	<u>18</u>	<u>H</u>	<u>N</u>					
<u>Homo*</u>	<u>FACU</u>	<u><5</u>	<u>H</u>						
<u>Rare</u>	<u>FACW</u>	<u>90</u>	<u>H</u>	<u>✓</u>					
<u>Hola</u>	<u>FACU</u>	<u><5</u>	<u>H</u>						

* Holcus mollis
 Hydrophytic Vegetation? Yes $2/2 = 100$ % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: N bank of Jacoby. wet meadow about 4' above stream bed. Steep bank between meadow & stream. Shrubs present are ornamental.
On lower benches (south bank), 95% Scm, 5% Glyceria

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-5 in.</u>	<u>10 YR 3/2</u>	<u>- - - Silty; moist</u>
<u>Bw1</u>	<u>5-10 in.</u>	<u>10 YR 4/2</u>	<u>Common Sinter 7.5 YR 4/4 5 YR 3/3; Silty; moist</u>
<u>Bw2</u>	<u>>10 in.</u>	<u>10 YR 4/1</u>	<u>mainly from 7.5 YR 5/8 & 4/6; Silty; moist</u>

Other Indicators: X None Gleyed matrix Histosol/Histic epipedon
 Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: Hebo silty clay loam Hydric Soils List? Yes
 Drainage Class: Poorly drained Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: Has sufficient positive indicators -
 Comments: Overcast; rainy - not so difficult

HYDROLOGY

Landform/Topography: bottomland Wetland Drainage Pattern: bottomland
 Inundation and Depth: in. Water Table & Depth: not 5' in.
 Hydrology Alteration: Upgradient development
 Other Indicators: X None Sediment deposits Water-stained leaves
 Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 6 in.
 Wetland Hydrology? Yes Rationale: has sufficient positive indicators
 Comments: * Late summer evaluation estimate of water table

SUMMARY

Wetland? Yes Rationale: All parameters have positive indicators
 Comments: Overcast; rainy

Date(s): 7/25/95 Field Investigator(s): LW, LB

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☐ No ☒

W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☐ PFO ☐ Other ☐

W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐

F30) Stream channel: Natural ☒ Partly modified ☐ Extensive modifications ☐

F31) Stream channel % shaded: 30%

H36) Evidence of flooding? Yes ☐ No ☒ Describe ☐

H37) Outflow restricted? Yes ☒ No ☐ flow control structure behind Ada Harris's mother's house

H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐ (lot 9300)

P42) Hazards to public? No ☒ Yes ☐ Describe ☐

P44) Access exist/feasible: Non-ADA ☒ ADA ☐ Obs. only ☐ Barriers: stream, woods

R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐

A52) Rural area visual contrast: Significant ☐ Limited ☐ Little/none ☐

A53) Urban landscape: Open/natural ☒ Groomed ☐ None ☐

A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
A57) Noise: Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐
A58) View: Whole/most of wetland ☒ Small portion ☐ Describe
A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34 Tillamook County Tax Lot: 9300 Site No.: 7 JAC channel
 Drainage Basin & Plot Location: Jacoby - upstream from # 6, where it turns S. (channel=PFOC, OBS)
 Normal Circumstances? X Atypical Situation? Problem Area? Sample Point: obs - 1
 Land Use & Condition: open space

VEGETATION Stream banks

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>Alru</u>	<u>FAC</u>	<u>60</u>	<u>T</u>	<u>✓</u>	<u>Vapa</u>	<u>NL</u>	<u><1</u>	<u>S</u>	
<u>Psi</u>	<u>FAC</u>	<u>3</u>	<u>T</u>		<u>Pomv</u>	<u>FACU</u>	<u>3</u>		
<u>Rusp</u>	<u>FAC</u>	<u>40</u>	<u>S</u>	<u>✓</u>	<u>Atfi</u>	<u>FAC</u>	<u><1</u>		
<u>Sara</u>	<u>FACW</u>	<u>10</u>	<u>S</u>		<u>Oxor</u>	<u>NL</u>	<u>4</u>		
<u>Acci</u>	<u>FAC-</u>	<u>5</u>	<u>S</u>		<u>Lyem</u>	<u>ORL</u>	<u>3</u>		

Hydrophytic Vegetation? Marginal 2/12 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: On the Oregon coast FAC-dominated communities are not reliable indicators of wetlands.

SOIL not investigated

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	in.		
	in.		
	in.		
	in.		
	in.		

Other Indicators: None Gleyed matrix Histosol/Histic epipedon
 Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: Mapped as Winema SiL Hydric Soils List?: NO
 Drainage Class: Criteria Depth: in.
 Hydric Soil? Rationale:
 Comments: creek bed - rocky + gravelly; incised 1-2 ft here.

HYDROLOGY

Landform/Topography: bottom land Wetland Drainage Pattern: creek bed
 Inundation and Depth: 6" in. Water Table & Depth: in.
 Hydrology Alteration: none
 Other Indicators: ✓ None Sediment deposits Water-stained leaves
 Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: Days in growing season Depth of Major Portion of Root Zone: in.
 Wetland Hydrology? NO Rationale: except in creek bed.
 Comments:

SUMMARY

Wetland? NO Rationale:
 Comments: stream bed is only area w/ wetland characteristics

Date(s): 7/25/95 Field Investigator(s): LW, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No ☒ _____
W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO ☒ Other _____
W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. _____ <25 ft. _____
F30) Stream channel: Natural ☒ Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: 100%
H36) Evidence of flooding? Yes _____ No ☒ Describe _____
H37) Outflow restricted? Yes _____ No ☒ _____
H38) Inflow restricted? No ☒ Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No ☒ Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA ☒ ADA _____ Obs. only _____ Barriers: thick woods
R49) Trails/view areas? Existing _____ Potential ☒ No existing or potential _____
A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
A53) Urban landscape: Open/natural ☒ Groomed _____ None _____
A54) Visual detractors? Yes _____ No ☒ A55) Easily removed? Yes _____ No _____

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural ☒ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
A58) View: Whole/most of wetland _____ Small portion ☒ Describe heavy brush
A59) No. of Cowardin classes visible: 2 or more _____ 1 ☒ _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34(DA) Tillamook County Tax Lot: 6000 Site No.: #68 (PAT3) 8-1
 Drainage Basin & Plot Location: N of road between 3rd & 4th (Patterson)
 Normal Circumstances? Y Atypical Situation? N Problem Area? Sample Point: 1
 Land Use & Condition: currently undisturbed

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
ALRU	Status FAC	Cover 45	T	✓	ATFI	Status FAC	Cover 5	H	
SASI	FACW	20	S	✓					
RUSP	FAC+	15	S	✓					
RUDI	FACU	20	S	✓					
CAOB	OBL	40	H	✓					

(LYAM begins 6' to W of sample point - wetter there)

Hydrophytic Vegetation? Yes $4/15 = 80$ % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: hardwood yard to N of this forested patch

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
A	0-4 in.	10YR 3/2	com dist 7.5YR 4/4; very moist SiCL
Bw1	4-10 in.	10YR 4/1	very hom. 5YR 2/3 & 4/10 7.5YR 5/6; SiCL; very moist
Bw2	7-10 in.	10YR 5/1	" " 5YR 3/3 & 4/4; 7.5YR 4/6; SiCL; "
	in.		
	in.		

Other Indicators: None ✓ Gleyed matrix Histosol/Histic epipedon
 Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: Hebo s.lty clay loam ind. Hydric Soils List? Yes
 Drainage Class: poorly D-rained Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: Has sufficient positive indicators
 Comments: overcast

HYDROLOGY

Landform/Topography: flat bottomland, slight slope to S Wetland Drainage Pattern: Bottomland
 Inundation and Depth: No in. Water Table & Depth: 4 in.
 Hydrology Alteration: deep ditch to S along Rd.
 Other Indicators: ✓ None Sediment deposits Water-stained leaves
 Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 6 in.
 Wetland Hydrology? Yes Rationale: No sufficient indicators
 Comments: * late summer evaluation, estimate of water table.

SUMMARY

Wetland? Yes Rationale: All parameters have positive indicators
 Comments:

Date(s): 7-27-95 Field Investigator(s): LW, BD

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No ☒ _____
W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO ☒ Other _____
W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. ☒ _____
F30) Stream channel: NA Natural _____ Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: _____
H36) Evidence of flooding? Yes _____ No _____ Describe _____
H37) Outflow restricted? Yes _____ No _____
H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No ☒ Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only ☒ Barriers: Dense woody veg. rough ground
R49) Trails/view areas? Existing _____ Potential ☒ No existing or potential _____
A52) Rural area visual contrast: NA Significant _____ Limited _____ Little/none _____
A53) Urban landscape: Open/natural _____ Groomed _____ None _____ Inside forest is natural
A54) Visual detractors? Yes _____ No ☒ A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural ☒ Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural _____ Light+natural _____ Heavy+natural ☒ Heavy intrusive _____
A58) View: Whole/most of wetland _____ Small portion ☒ Describe Dense forest
A59) No. of Cowardin classes visible: 2 or more _____ 1 ☒

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34(DA) Tillamook County Tax Lot: 7700 Site No.: 09 (PAT4-9-1) PER
 Drainage Basin & Plot Location: Patterson slough at Highway 101, S of Trade
 Normal Circumstances? ? Atypical Situation? ? Problem Area? ? Sample Point: 1
 Land Use & Condition: Human modifications, but not recently disturbed.

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
<u>ALGE</u>	<u>OBL</u>	<u>30</u>	<u>H</u>	<u>✓</u>	<u>ELPA</u>	<u>OBL</u>	<u><1</u>	<u>H</u>	
<u>TYLA</u>	<u>OBL</u>	<u>10</u>	<u>H</u>		<u>LOCO</u>	<u>FAC</u>	<u><1</u>	<u>H</u>	
<u>JUEF</u>	<u>FACW</u>	<u>10</u>	<u>H</u>		<u>Potentilla pacifica</u>	<u>OBL</u>	<u><1</u>	<u>H</u>	
<u>PHAR</u>	<u>FACW</u>	<u>20</u>	<u>H</u>	<u>✓</u>					
<u>AGST</u>	<u>FAC</u>	<u>30</u>	<u>H</u>	<u>✓</u>					

Hydrophytic Vegetation? Yes 3/3 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-12</u> in.	<u>2.5Y 3/2</u>	<u>Many from 7.5YR 3/4. mostly very m. SIL</u>
<u>AB</u>	<u>12-15</u> in.	<u>2.5Y 4/1 3/2</u>	<u>" " 7.5YR 3/4; very m. SIL</u>
<u>BW</u>	<u>>15</u> in.	<u>7.5YR 3/2</u>	<u>few dots 5YR 3/3; saturated SIL</u>
	in.		
	in.		

Other Indicators: None ✓ Gleyed matrix None Histosol/Histic epipedon
Concretions None Sulfidic odor None Sandy w/high organic content

Series/Phase: Breuner silt loam Hydric Soils List? Yes
 Drainage Class: Very Poorly Drained Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: Has sufficient positive indicators
 Comments:

HYDROLOGY

Landform/Topography: Bottomland Wetland Drainage Pattern: swale
 Inundation and Depth: in. Water Table & Depth: ~154 in.
 Hydrology Alteration: None
 Other Indicators: x None None Sediment deposits None Water-stained leaves
Drift lines None Water marks None Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 5 in.
 Wetland Hydrology? Yes Rationale: Has sufficient positive indicators
 Comments: * Summer field study, estimate of water table. Water table most likely at surface during growing season.

SUMMARY

Wetland? Yes Rationale: All parameters have sufficient positive indicators
 Comments:

Date(s): 7-20-95 Field Investigator(s): LW BJ

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☐ No ☒
- W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☐ PFO ☐ Other ☐
- W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☐ <25 ft. ☒ *by highway*
- F30) Stream channel: *NA* Natural ☐ Partly modified ☐ Extensive modifications ☐
- F31) Stream channel % shaded: ☐
- H36) Evidence of flooding? Yes ☐ No ☐ Describe ☐
- H37) Outflow restricted? Yes ☐ No ☐
- H38) Inflow restricted? No ☐ Yes, can be remedied ☐ Yes, cannot be remedied ☐
- P42) Hazards to public? No ☐ Yes ☒ Describe *By 101*
- P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☒ Barriers: *highway, bank/strip*
- R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
- A52) Rural area visual contrast: Significant ☐ Limited ☐ Little/none ☐
- A53) Urban landscape: Open/natural ☒ Groomed ☐ None ☐
- A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

- A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
- A57) Noise: Natural ☐ Light+natural ☐ Heavy+natural ☒ Heavy intrusive ☐
- A58) View: Whole/most of wetland ☐ Small portion ☒ Describe *w/ & down Swale & back*
- A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒ *berry on E & road back on W*

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34(28) Tillamook County Tax Lot: 7700 Site No.: 09 PFOR
 Drainage Basin & Plot Location: Patterson - large low area Softside, near highway - E of SP 9-1
 Normal Circumstances? ? Atypical Situation? ? Problem Area? ? Sample Point: 2 (beyond berm)
 Land Use & Condition: human modification, but not recently disturbed

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>Salix sp.</u>	<u>OBL+ FAC</u>	<u>4/1</u>	<u>T</u>	<u>✓</u>	<u>ATFI</u>	<u>FAC</u>	<u>< 1</u>		
<u>CAOB</u>	<u>OBL</u>	<u>70</u>	<u>H</u>	<u>✓</u>	<u>RUSP</u>	<u>FAC+</u>	<u>< 1</u>		
<u>PHAR</u>	<u>FACW</u>	<u>10</u>	<u>H</u>						
<u>LYAM</u>	<u>OBL</u>	<u>10</u>	<u>H</u>						

This is patchy understorey - more PHAR to W; more LYAM to E.

Hydrophytic Vegetation? Yes 2/2 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A1</u>	<u>0-2</u> in.	<u>10 YR 2/2</u>	<u>few dust 10 YR 3/6; Si L, v moist - sat</u>
<u>A2</u>	<u>2-15</u> in.	<u>10 YR 3/1</u>	<u>main from 10 YR 3/6 & 4/6; Si L, sat</u>
<u>BW</u>	<u>> 15</u> in.	<u>5 G 5/1</u>	<u>" " 5 YR 3/4 & 3/3; Si L sat</u>

Other Indicators: None ✓ Gleyed matrix None Histosol/Histic epipedon
Concretions None Sulfidic odor None Sandy w/high organic content

Series/Phase: Brenner silty clay loam Hydric Soils List? Yes
 Drainage Class: Very Poorly drained Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: has sufficient positive indicators
 Comments:

HYDROLOGY

Landform/Topography: Bottomland, N of Patterson Ck. Wetland Drainage Pattern: swale
 Inundation and Depth: 10 in. Water Table & Depth: 14" & rising in.
 Hydrology Alteration: Yes, upgradient runoff diversion * 2 in. During spring
 Other Indicators: None None Sediment deposits ✓ Water-stained leaves
Drift lines None Water marks None Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 5 in.
 Wetland Hydrology? Yes Rationale: has sufficient positive indicators
 Comments: * Summer field study estimate of water table

SUMMARY

Wetland? Yes Rationale: All parameters have positive indicators
 Comments:

Date(s): 7-26-95 Field Investigator(s): LW RD

All upland areas near by are ① Road fill, ② berm fill or ③ people's yards
 Topog abrupt mostly.

Com berm: ALRU, RUDI, PHAR, dominants.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☐ No ☒
W22) % Cowardin classes present: POW ☐ PEM ☐ PSS ☐ PFO ☐ Other ☐
W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☐ <25 ft. ☐
F30) Stream channel: ☒ Natural ☐ Partly modified ☐ Extensive modifications ☐
F31) Stream channel % shaded: ☐
H36) Evidence of flooding? Yes ☐ No ☐ Describe ☐
H37) Outflow restricted? Yes ☐ No ☐
H38) Inflow restricted? No ☐ Yes, can be remedied ☐ Yes, cannot be remedied ☐
P42) Hazards to public? No ☒ Yes ☐ Describe ☐
P44) Access exist/feasible: Non-ADA ☒ ADA ☐ Obs. only ☐ Barriers: ☐
R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
A52) Rural area visual contrast: Significant ☐ Limited ☐ Little/none ☐
A53) Urban landscape: Open/natural ☒ Groomed ☐ None ☐
A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
A57) Noise: Natural ☐ Light+natural ☐ Heavy+natural ☐ Heavy intrusive ☒
A58) View: Whole/most of wetland ☐ Small portion ☒ Describe ☐
A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET
(PAT 3/10-1) (PFOC)

T. 1 N, R. 10W, SE 1/4 of Sec. 34 (DR) Tillamook County Tax Lot: 4900 Site No.: 10
 Drainage Basin & Plot Location: Patterson 5th Main - SW corner of site is slightly higher area.
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 1
 Land Use & Condition: Undeveloped - recently removed blockage from culvert on S side of lot.

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>Salix</u>	<u>OBL-FAC</u>	<u>65</u>	<u>S</u>	<u>✓</u>	<u>ATFI</u>	<u>FAC</u>	<u>15</u>	<u>H</u>	<u>✓</u>
<u>Pyrus malus</u>	<u>NL</u>	<u>10</u>	<u>S</u>		<u>CAOB</u>	<u>OBL</u>	<u>5</u>	<u>H</u>	
<u>SARA</u>	<u>FACU</u>	<u><1</u>	<u>S</u>		<u>EQTE</u>	<u>FACW</u>	<u><1</u>	<u>H</u>	
<u>RUDI</u>	<u>FACU</u>	<u>20</u>	<u>S</u>	<u>✓</u>	<u>POMU</u>	<u>FACU</u>	<u><1</u>	<u>H</u>	
<u>RULA</u>	<u>FACU</u>	<u><1</u>	<u>S</u>						

Hydrophytic Vegetation? Yes 2/3 = 67 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-9 in.</u>	<u>10YR 2/1</u>	<u>heavy Dist. 7.5YR 3/4 Sil. very moist</u>
<u>Bw</u>	<u>9-17 in.</u>	<u>10YR 4/1</u>	<u>manu from 5YR 3/3, damp + very moist</u>
	<u>in.</u>		
	<u>in.</u>		
	<u>in.</u>		

Other Indicators: None ✓ Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: mapped as Winema Hebo silty clay loam Hydric Soils List? Yes
 Drainage Class: Poorly Drained Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: Has sufficient positive indicators -
 Comments: overcast

HYDROLOGY

Landform/Topography: alluvial hill slope Wetland Drainage Pattern: seepage?
 Inundation and Depth: in. Water Table & Depth: 9 in.
 Hydrology Alteration: Culvert on S. side of lot.
 Other Indicators: X None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 6 in.
 Wetland Hydrology? Yes Rationale: Has suffic. pos indic..?
 Comments: hydrol. from uplope groundwater discharge and surface run off.

SUMMARY

Wetland? Yes Rationale: all 3 parameters have suffic. pos. indicators
 Comments: this corner seems slightly drier than rest of area; it may dry more now that culvert is unblocked
 Date(s): 7/26/95 Field Investigator(s): LW, BD

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No _____
W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: _____
H36) Evidence of flooding? Yes _____ No _____ Describe _____
H37) Outflow restricted? Yes _____ No _____
H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No _____ Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
A53) Urban landscape: Open/natural _____ Groomed _____ None _____
A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SE 1/4 of Sec. 34 (or) Tillamook County Tax Lot: 4900 Site No.: 10 (PAT3)-10-2 (PEMC)
 Drainage Basin & Plot Location: Patterson - 150 S of Pacific Row, middle of TL 4900
 Normal Circumstances? ? Atypical Situation? Problem Area? Sample Point: 2
 Land Use & Condition: Undeveloped

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
<u>PHAR</u>	<u>FACW</u>	<u>65</u>	<u>H</u>	<u>✓</u>	<u>LDGO</u>	<u>FAC</u>	<u><1</u>	<u>H</u>	<u> </u>
<u>EOTE</u>	<u>FACW</u>	<u>15</u>	<u>H</u>	<u>✓</u>	<u>SARA</u>	<u>FACU</u>	<u><1</u>	<u>S</u>	<u> </u>
<u>RULA</u>	<u>FACW</u>	<u><1</u>	<u>S</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>CAOB</u>	<u>OBL</u>	<u>10</u>	<u>H</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>
<u>DRAU</u>	<u>FACW</u>	<u>10</u>	<u>H</u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>	<u> </u>

Hydrophytic Vegetation? Yes 2/2 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-5</u> in.	<u>10 YR 3/2</u>	<u>— 0 — L, sat.</u>
<u>BW</u>	<u>5-18</u> in.	<u>10 YR 4/0</u>	<u>5 G 5/2; SIL+, sat</u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>

Other Indicators: at 5" None X Gleyed matrix Histoso/Histic epipedon
X Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: Best resembles Hebo silty clay loam Hydric Soils List? Yes
 Drainage Class: Poorly Drained Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: Has positive indicators
 Comments:

HYDROLOGY

Landform/Topography: slight slope to SSE Wetland Drainage Pattern: Bottomland
 Inundation and Depth: NO in. Water Table & Depth: 5" in.
 Hydrology Alteration:
 Other Indicators: X None Sediment deposits Water-stained leaves
 Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: 8 Days in growing season Depth of Major Portion of Root Zone: 5 in.
 Wetland Hydrology? Yes Rationale: Has sufficient positive indicators
 Comments: from subsurface & surface drainage from slopes above (S & N).

SUMMARY

Wetland? Yes Rationale: All parameters have sufficient positive indicators
 Comments:

Date(s): 7-21-95 Field Investigator(s): LU BD

Up at 30' S of Pacific St. ROW, standing water at 8", PHAR dom, w RULA
 & Dryopteris austriaca

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No ☒ _____
W22) % Cowardin classes present: POW _____ PEM ☒ PSS ☒ PFO _____ Other _____
W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. ☒ _____
F30) Stream channel: ^{NA} Natural _____ Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: _____
H36) Evidence of flooding? Yes _____ No _____ Describe _____
H37) Outflow restricted? Yes _____ No _____
H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No ☒ Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only ☒ Barriers: banks, rough ground
R49) Trails/view areas? Existing _____ Potential ☒ No existing or potential _____
A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
A53) Urban landscape: Open/natural _____ Groomed _____ None _____
A54) Visual detractors? Yes _____ No ☒ A55) Easily removed? Yes _____ No _____

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural _____ Light+natural ☒ Heavy+natural _____ Heavy intrusive _____
A58) View: Whole/most of wetland _____ Small portion ☒ Describe veg dense tall -
A59) No. of Cowardin classes visible: 2 or more ☒ 1 _____ PEM, then PSS (or PFO) Selix mostly

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SW 1/4 of Sec. 3560 Tillamook County Tax Lot: 200 ? Site No.: 11 (JAC 11-11-1) (PEM C)
 Drainage Basin & Plot Location: Jacoby Cr - N side; east of Phyllis' sister's meadow - 60' from prop. line to plot.
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 1
 Land Use & Condition: Undisturbed - forest opening

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>HOLA</u>	<u>FAC</u>	<u>20</u>	<u>H</u>	<u>✓</u>					
<u>LOCO</u>	<u>FAC</u>	<u>20</u>	<u>H</u>	<u>✓</u>					
<u>RARE</u>	<u>FACW</u>	<u>30</u>	<u>H</u>	<u>✓</u>					
<u>Agrostis sp</u>	<u>FACW-FAC</u>	<u>15</u>	<u>H</u>						
<u>FEAR</u>	<u>FAC</u>	<u>15</u>	<u>H</u>						

Hydrophytic Vegetation? Yes 3/3 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: there are CAOB patches nearby

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-9 in.</u>	<u>10 YR 4/2</u>	<u>man dip 7.5 YR 3/4 2 1/6: SLT: whiter, moist</u>
<u>Bw1</u>	<u>9-13 in.</u>	<u>10 YR 4/1</u>	<u>" " " " " " " "</u>
<u>Bw2</u>	<u>> 13 in.</u>	<u>2.5 Y 5/2 +</u>	<u>" " " " " " " "</u>
		<u>(10 YR 4/1)</u>	<u>" " " " " " " "</u>

Other Indicators: None Gleyed matrix Histosol/Histic epipedon
at 10" ✓ Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: mapped as Hsbo silty clay loam Hydric Soils List? Yes
 Drainage Class: Poorly Drained Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: has sufficient positive indicators
 Comments:

HYDROLOGY

Landform/Topography: bottomland Wetland Drainage Pattern: bottomland
 Inundation and Depth: No in. Water Table & Depth: Not Apparent in.
 Hydrology Alteration: * 0-5 in.

Other Indicators: X None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: A Days in growing season Depth of Major Portion of Root Zone: 5 in.
 Wetland Hydrology? Yes Rationale: Has sufficient positive indicators
 Comments: * Summer field study, estimate of water table.

SUMMARY

Wetland? Yes Rationale: All parameters have positive indicators
 Comments:

Date(s): 7-27-95 Field Investigator(s): EW, BT

To NE in another opening that is much wetter, with surface water,
 lots of CAOB, evidence of elk use. Deep area?

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☐ No ☒
- W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☐ PFO ☐ Other ☐
- W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☐ <25 ft. ☐
- F30) Stream channel: Natural ☐ Partly modified ☐ Extensive modifications ☐
- F31) Stream channel % shaded: ☐
- H36) Evidence of flooding? Yes ☒ No ☐ Describe adjacent similar areas are
- H37) Outflow restricted? Yes ☐ No ☒ Sat'd to surface
- H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
- P42) Hazards to public? No ☒ Yes ☐ Describe ☐
- P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☐ Barriers: topography, etc.
- R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
- A52) Rural area visual contrast: Significant ☐ Limited ☒ Little/none ☐
- A53) Urban landscape: Open/natural ☐ Groomed ☐ None ☐
- A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

- A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
- A57) Noise: Natural ☒ Light+natural ☐ Heavy+natural ☐ Heavy intrusive ☐
- A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
- A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SW 1/4 of Sec. 35 (Index) Tillamook County Tax Lot: 900-1 Site No.: 11 (UPL)
 Drainage Basin & Plot Location: Jacoby - Phelps' sister's prop; NW 1/4 Sec. 11-1, in meadow, E side; toward little draw
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 2
 Land Use & Condition: Was logged between 1989 & 1994 (air photos)

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>HOLA</u>	<u>FAC</u>	<u>60</u>	<u>H</u>	<u>✓</u>	<u>RULA</u>	<u>FAC+</u>	<u><1</u>	<u>S</u>	
<u>Agrostis sp</u>	<u>FACW-FAC</u>	<u>50</u>	<u>H</u>	<u>✓</u>	<u>CIVU</u>	<u>FACU</u>	<u><1</u>	<u>H</u>	
<u>Erechtites minima</u>	<u>NL</u>	<u><1</u>	<u>H</u>						
<u>Digitaria purpurea</u>	<u>FACU</u>	<u><1</u>	<u>H</u>						
<u>RUSP</u>	<u>FAC+</u>	<u>15</u>	<u>S</u>						

Hydrophytic Vegetation? Yes 2/2 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: drier looking

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-8</u> in.	<u>10 YR 3/3</u>	<u>— 0 —</u> ; <u>SILT</u> ; <u>absolutely moist</u>
<u>AB</u>	<u>8-13</u> in.	<u>10 YR 3/4</u>	<u>— 0 —</u> ; <u>SILT</u> ; <u>moist</u>
<u>BW</u>	<u>7-13</u> in.	<u>10 YR 3/1</u>	<u>Subspon</u> ; <u>5 YR 5/2</u> ; <u>SILT</u> ; <u>moist</u>

Other Indicators: ☒ None ☐ Gleyed matrix ☐ Histosol/Histic epipedon
☐ Concretions ☐ Sulfidic odor ☐ Sandy w/high organic content

Series/Phase: Knappa silt loam Hydric Soils List? No
 Drainage Class: Somewhat Poorly Criteria Depth: 0 in.
 Hydric Soil? No Rationale: LACKS SUFFICIENT positive indicators
 Comments:

HYDROLOGY

Landform/Topography: slight slope to W Wetland Drainage Pattern: —
 Inundation and Depth: No in. Water Table & Depth: Not apparent in.
 Hydrology Alteration: none * >13 in.

Other Indicators: ☒ None ☐ Sediment deposits ☐ Water-stained leaves
☐ Drift lines ☐ Water marks ☐ Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 5 in.
 Wetland Hydrology? No Rationale:
 Comments: * Summer field study estimate of water table.

SUMMARY

Wetland? No Rationale: Soil and Hydrology lack positive indicators.
 Comments:

Date(s): 7-27-95 Field Investigator(s): LW, BD.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No _____
- W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
- W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
- F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
- F31) Stream channel % shaded: _____
- H36) Evidence of flooding? Yes _____ No _____ Describe _____
- H37) Outflow restricted? Yes _____ No _____
- H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
- P42) Hazards to public? No _____ Yes _____ Describe _____
- P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
- R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
- A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
- A53) Urban landscape: Open/natural _____ Groomed _____ None _____
- A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
- A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
- A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
- A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, SW 1/4 of Sec. 35 (CB) Tillamook County Tax Lot: 400 Site No.: 12 (OBS)
 Drainage Basin & Plot Location: Patterson ck - N of Phillis' - muck sheds
 Normal Circumstances? Atypical Situation? Problem Area? Sample Point: Obs 1
 Land Use & Condition: Mowed field to S. - stream corridor undisturbed

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>ALRU</u>	<u>FAC</u>	<u>30</u>	<u>T</u>	<u>✓</u>	<u>Agrostis sp.</u>	<u>FACW-FAC</u>	<u>1</u>	<u>H</u>	<u> </u>
<u>SASI</u>	<u>FACW</u>	<u>40</u>	<u>S</u>	<u>✓</u>	<u>HOLA</u>	<u>FAC</u>	<u><1</u>	<u>H</u>	<u> </u>
<u>RUDI</u>	<u>FACU</u>	<u>35</u>	<u>S</u>	<u>✓</u>	<u>RUBR. virginiana</u>	<u>FAC</u>	<u><1</u>	<u>H</u>	<u> </u>
<u>RARE</u>	<u>FACW</u>	<u>20</u>	<u>H</u>	<u>✓</u>	<u>ATFI</u>	<u>FAC</u>	<u><1</u>	<u>H</u>	<u> </u>
<u>EQTE</u>	<u>FACW</u>	<u><1</u>	<u>H</u>	<u> </u>	<u>PTAQ</u>	<u>FACU</u>	<u><1</u>	<u>H</u>	<u> </u>

Hydrophytic Vegetation? Yes 314 = 75 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>
<u> </u>	<u> </u> in.	<u> </u>	<u> </u>

Other Indicators: None Gleyed matrix Histosol/Histic epipedon
 Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: too variable Hydric Soils List?:
 Drainage Class: poorly drained Criteria Depth: 12 in.
 Hydric Soil? yes Rationale: has sufficient flooding
 Comments:

HYDROLOGY

Landform/Topography: bottomland Wetland Drainage Pattern: streamchannel
 Inundation and Depth: 1-8" variable in. Water Table & Depth: in.
 Hydrology Alteration:
 Other Indicators: None Sediment deposits Water-stained leaves
 Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: in.
 Wetland Hydrology? Yes Rationale:
 Comments: Confined to stream bed & immediate banks

SUMMARY

Wetland? Yes Rationale: All parameters have positive indicators.
 Comments: W.L. located w/in stream channel.

Date(s): 7-27-96 Field Investigator(s): LW, BD

Adjacent meadow/may field is sloping (N-facing) w/ mixed grasses & forbs: FERR, HOLA, PLLA, DAGL, RNOB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No ☒ _____
W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO ☒ Other _____
W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
F30) Stream channel: Natural ☒ Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: 90 _____
H36) Evidence of flooding? Yes _____ No ☒ Describe _____
H37) Outflow restricted? Yes _____ No ☒ _____
H38) Inflow restricted? No ☒ Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No ☒ Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
R49) Trails/view areas? Existing _____ Potential ☒ No existing or potential _____
A52) Rural area visual contrast: Significant _____ Limited ☒ Little/none _____
A53) Urban landscape: Open/natural _____ Groomed _____ None _____
A54) Visual detractors? Yes _____ No ☒ A55) Easily removed? Yes _____ No _____

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural _____ Light+natural ☒ Heavy+natural _____ Heavy intrusive _____
A58) View: Whole/most of wetland _____ Small portion ☒ Describe Creek is heavily veg'd
A59) No. of Cowardin classes visible: 2 or more _____ 1 1

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

PAT 1213-1

T. 1 N, R. 10W, S4 1/4 of Sec. 35(16) Tillamook County Tax Lot: 1300 Site No.: 13-PEMC
 Drainage Basin & Plot Location: Patterson (S side of Main 11-12th St) - West of site
 Normal Circumstances? Atypical Situation? Problem Area? Sample Point: 1
 Land Use & Condition: Undeveloped - a ring of PIS & ALRU around a wet opening.

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>LYAM</u>	<u>OBL</u>	<u>25</u>	<u>H</u>	<u>✓</u>	<u>ALRU (edges)</u>	<u>FAC</u>	<u>10</u>	<u>T</u>	
<u>EQTE</u>	<u>FACW</u>	<u>25</u>	<u>H</u>	<u>✓</u>	<u>PISI (edges)</u>	<u>FAC</u>	<u>15</u>	<u>T</u>	
<u>ATFI</u>	<u>FAC</u>	<u>25</u>	<u>H</u>	<u>✓</u>					
<u>PUDI</u>	<u>FACU</u>	<u>20</u>	<u>S</u>	<u>✓</u>					
<u>CAOB</u>	<u>OBL</u>	<u><1</u>	<u>H</u>						

Hydrophytic Vegetation? Yes 3/4 = 75 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-5 in.</u>	<u>10 YR 2/1</u>	<u>— o — SiCl; sat</u>
<u>Bw1</u>	<u>5-12 in.</u>	<u>10 YR 3/1</u>	<u>many dist. 5 YR 3/3 + 10 YR 4/6 SiC</u>
<u>Bw2</u>	<u>>12 in.</u>	<u>5 Y 4/1 and</u>	<u>common dist. 7.5 YR 4/6, 5 YR 3/2 SiC, SAT.</u>
	<u>in.</u>	<u>5 Y 5/1</u>	
	<u>in.</u>		

Other Indicators: None ✓ Gleyed matrix None Histosol/Histic epipedon
Concretions None Sulfidic odor None Sandy w/high organic content

Series/Phase: Hebe silty clay loam Hydric Soils List? Yes
 Drainage Class: Poorly Drained Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: Has sufficient soil saturation
 Comments:

HYDROLOGY

Landform/Topography: Flat bottomland Wetland Drainage Pattern: Depression
 Inundation and Depth: NO in. Water Table & Depth: at surface in.
 Hydrology Alteration:
 Other Indicators: None None Sediment deposits None Water-stained leaves
Drift lines None Water marks X Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 5 in.
 Wetland Hydrology? Yes Rationale: Has sufficient positive indicators from seeps & springs → (groundwater discharge)
 Comments:

SUMMARY

Wetland? Yes Rationale: All parameters have positive indicators.
 Comments:

Date(s): 7-27-95 Field Investigator(s): LW, BD

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☐ No ☒

W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☐ PFO ☐ Other ☐

W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☐ <25 ft. ☐

F30) Stream channel: Natural ☐ Partly modified ☐ Extensive modifications ☐

F31) Stream channel % shaded: ☐

H36) Evidence of flooding? Yes ☐ No ☒ Describe

H37) Outflow restricted? Yes ☐ No ☒

H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐

P42) Hazards to public? No ☒ Yes ☐ Describe

P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☒ Barriers: private

R49) Trails/view areas? Existing ☐ Potential ☐ No existing or potential ☒ land

A52) Rural area visual contrast: Significant ☐ Limited ☒ Little/none ☐

A53) Urban landscape: Open/natural ☐ Groomed ☐ None ☐

A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐

A57) Noise: Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐

A58) View: Whole/most of wetland ☒ Small portion ☐ Describe

A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, S 1/4 of Sec. 35/18 Tillamook County Tax Lot: 1300 Site No.: 13 (PAT) 13-2
 Drainage Basin & Plot Location: Patterson Ck; S of Main, 11th - 12 St; E end of clearing
 Normal Circumstances? Atypical Situation? Problem Area? Sample Point: 2
 Land Use & Condition: Under Betty Corbett prop

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species adjacent:	Indicator Status	% Cover	Layer	Domin.
SCMI	OBL	15	H	✓	ALRU	FAC	40	T	
EGTE	EBCW	15	H	✓	PISI	FAC	40	T	
RUDI	FACU	25	S	✓					
MADI	FAC	15	H	✓					

Hydrophytic Vegetation? YES 314 = 75 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: more open understory; this is on trans. to drier S 40 to N -
lolly, PISI, POMU, VAPA, RUUR, Menziesia ferruginea
(NL) (FAC) (FACU) (NL) (FACU) (FACU)

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
A	0-12 in.	10 YR 2/2	—; dry SiL; dry
Bw1	12-14 in.	10 YR 4/1-2	many dist 5 YR 3/3 + 7.5 YR 5/6; SiC; moist
Bw2	7 1/4 in.	5Y 4/1	many fine. 10 YR 5/2 + 4/8, SiC; moist
	in.		
	in.		

Other Indicators: X None Concretions Gleyed matrix Sulfidic odor Histosol/Histic epipedon Sandy w/high organic content

Series/Phase: Hebo silt loam Hydric Soils List? yes
 Drainage Class: Somewhat poorly drained Criteria Depth: 0 in.
 Hydric Soil? No Rationale: lacks sufficient positive indicators.
 Comments: duffy effectively drained by incised creek?

HYDROLOGY

Landform/Topography: Creek terrace Wetland Drainage Pattern: none
 Inundation and Depth: none in. Water Table & Depth: est. 12-14" in.
 Hydrology Alteration:
 Other Indicators: X None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: in.
 Wetland Hydrology? No Rationale: lacks sufficient positive indicators
 Comments:

SUMMARY

Wetland? No Rationale: lack soil and hydrology parameters
 Comments: Trans on edge

Date(s): 7-27-95 Field Investigator(s): BD, LW

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No _____
W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: _____
H36) Evidence of flooding? Yes _____ No _____ Describe _____
H37) Outflow restricted? Yes _____ No _____
H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No _____ Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
A53) Urban landscape: Open/natural _____ Groomed _____ None _____
A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

DATE OF ASSESSMENT: _____
ASSESSOR: _____
PROJECT: _____
LOCATION: _____
SHEET NO.: _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, NE 1/4 of Sec. 34 (DA) 34 (AD) Tillamook County Tax Lot: 4200 → FA 100
 Drainage Basin & Plot Location: E of 7th St Between Ocean & High
 Normal Circumstances? yes Atypical Situation? no Problem Area? no Sample Point: 1
 Land Use & Condition: Not undisturbed, but flagged for development

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>JUEF</u>	<u>FACW</u>	<u>60</u>	<u>H</u>	<u>✓</u>	<u>NYAN</u>	<u>OBL</u>	<u>20</u>	<u>H</u>	<u>✓</u>
<u>SAMI</u>	<u>OBL</u>	<u>20</u>	<u>H</u>	<u>✓</u>	<u>ANOD</u>	<u>FACU</u>	<u>5</u>	<u>H</u>	
<u>LOCO</u>	<u>FAC</u>	<u>15</u>	<u>H</u>						
<u>CANB</u>	<u>OBL</u>	<u>5</u>	<u>H</u>						
<u>XHOLA</u>	<u>FAC</u>	<u>5</u>	<u>H</u>						

Hydrophytic Vegetation? Yes 3 13 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-15</u> in.	<u>5Y 4/1</u>	<u>10 YR 5/8, 4/6; very moist/sat. SIC</u>
<u>Bw</u>	<u>>15</u> in.	<u>Variegated: 10YR 4/1, 10YR 4/6, & 7.5 YR 5/8</u>	<u>SIC very moist/sat</u>
	in.		
	in.		
	in.		

Other Indicators: None X Gleyed matrix None Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: Haba silty clay loam Hydric Soils List? Yes
 Drainage Class: Poorly drained Criteria Depth: 12 in.
 Hydric Soil? yes Rationale: No sufficient positive indicators.
 Comments:

HYDROLOGY

Landform/Topography: Bottomland Wetland Drainage Pattern: Swale ditch to W
 Inundation and Depth: no in. Water Table & Depth: no in.
 Hydrology Alteration: up gradient development (onsite) * AT SURFACE, during growing season
 Other Indicators: None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 5 in.
 Wetland Hydrology? yes Rationale: Has sufficient positive indicators.
 Comments: Water from subsurface flow on N hillside collected on heavy textured soils (clays) at bottom of slope. * Field study in summer, est. of w.T.

SUMMARY

Wetland? yes Rationale: All parameters have positive indicators.
 Comments: Active construction on this property, and rapidly getting closer to wet areas.

Date(s): 7-27-96 Field Investigator(s): LW BD

Upslope (N) → Bracken RUDI, RUUR, SYSC

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☒ No ☐
W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☐ PFO ☐ Other ☐
W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☐ <25 ft. ☒
F30) Stream channel: Natural ☐ Partly modified ☐ Extensive modifications ☒
F31) Stream channel % shaded: ☐
H36) Evidence of flooding? Yes ☐ No ☒ Describe ☐
H37) Outflow restricted? Yes ☐ No ☒
H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
P42) Hazards to public? No ☐ Yes ☐ Describe ☐
P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☒ Barriers: ☐
R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
A52) Rural area visual contrast: Significant ☐ Limited ☐ Little/none ☐
A53) Urban landscape: Open/natural ☐ Groomed ☒ None ☐
A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

- A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
A57) Noise: Natural ☐ Light+natural ☐ Heavy+natural ☐ Heavy intrusive ☒ construction
A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

Construction/earth moving encroaching on this area although wet. boundary is flagged.

(LARI)15-1

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, NE 1/4 of Sec. 34(AC) Tillamook County Tax Lot: 901 Site No.: 15-1 PFOC
 Drainage Basin & Plot Location: Larson Creek - at F. side RR crossing; N side of Ck.
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 1
 Land Use & Condition: Undisturbed here; lots of work on S slope above Ck - construction.
steep bank S side - gentle N side; extensive broader LYAM/CAOB wetland area upstream.

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
CAOB	OBL	65	H	✓	ALRU	FAC	85		✓
LYAM	OBL	10	H						
OESA	OBL	10	H						
SARA	FACW	5	J						
RUSP	FAC+	10							

Hydrophytic Vegetation? Yes $2/2 = 100$ % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: shrub shifted from stream bottom wetlands to adjacent upland forested area.

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
A1	0-8" in.	10YR 2/2	<u>o - , Sal, sat</u>
AV	8-11 in.	10YR 4/1	<u>many from mixed 5YR 3/2, 7.5YR 5/8; mang. concs; sat</u>
BW1	11-13 in.	2.5YR 3/6; 5YR 5/8	<u>mixed rating; loamy sand; sat</u>
2C	>13 in.	5Y 4/1	<u>o - ; Silty; sat</u>

Other Indicators: None Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: TCB variable Hydric Soils List? N/A
 Drainage Class: poorly drained Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: How positive indicators + soil saturation
 Comments: Next to creek, different times of deposition.

HYDROLOGY

Landform/Topography: bottomland Wetland Drainage Pattern: stream floodplain
 Inundation and Depth: in. Water Table & Depth: AT SURFACE in.
 Hydrology Alteration: upgradient development

Other Indicators: None Sediment deposits Water-stained leaves
Drift lines X Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 5 in.
 Wetland Hydrology? Yes Rationale: In stream channel.
 Comments:

SUMMARY

Wetland? Yes Rationale: In creek has positive indicators of all parameters
 Comments:

Date(s): 7-27-95 Field Investigator(s): LW BD

10/12/01 CR
8/20/01 ME (10/12/01)
11/ Sec 31

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☐ No ☒

W22) % Cowardin classes present: POW ☐ PEM ☐ PSS ☐ PFO ☒ Other ☐

W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☐ <25 ft. ☐

F30) Stream channel: Natural ☒ Partly modified ☐ Extensive modifications ☐

F31) Stream channel % shaded: 80

H36) Evidence of flooding? Yes ☒ No ☐ Describe sub. depress; soil sat.

H37) Outflow restricted? Yes ☐ No ☒

H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐

P42) Hazards to public? No ☐ Yes ☒ Describe DR ab. access

P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☐ Barriers: ☐

R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐

A52) Rural area visual contrast: Significant ☒ Limited ☐ Little/none ☐

A53) Urban landscape: Open/natural ☐ Groomed ☐ None ☐

A54) Visual detractors? Yes ☒ No ☐ A55) Easily removed? Yes ☒ No ☐
trash

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐

A57) Noise: Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐ FL 101

A58) View: Whole/most of wetland ☐ Small portion ☒ Describe ☐

A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02/16 Tillamook County Tax Lot: 200 Site No.: 50 (MCC 2) 50-1 PEMC
 Drainage Basin & Plot Location: East of berm at E edge of sewage lagoons, 30' W of RR tracks
 Normal Circumstances? Yes Atypical Situation? Yes Problem Area? No Sample Point: 1
 Land Use & Condition: valley, created drainage swale, not mowed

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>Poa</u>	Status	Cover			<u>SPDO</u>	Status	Cover		
<u>Gob.</u>	<u>Obl</u>	<u>28</u>	<u>H</u>	<u>✓</u>	<u>(Spiraea douglasii)</u>	<u>FACW</u>	<u>3</u>	<u>Sh</u>	
<u>LOCO</u>	<u>FAC</u>	<u>30</u>	<u>H</u>	<u>✓</u>					
<u>Juncus acuminatus</u>	<u>Obl</u>	<u>5</u>	<u>H</u>						
<u>Juncus balticus</u>	<u>FACW+</u>	<u>T</u>	<u>H</u>		<u>barren ground</u>		<u>10</u>		

Hydrophytic Vegetation? Yes 3/3 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: Alg. Veg. along RR: PHAR, ALLU, SPDO, RUSP, RULA
RUDI on RR berm Sara Lonicera invol.
(FACW) (Obl) (FACW) (FACW) (FACW)

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>Ap</u>	<u>0-6" in.</u>	<u>2.5Y 2/1</u>	<u>c, faint 7.5YR 7/4 Loam</u>
<u>AB</u>	<u>6-14 in.</u>	<u>2.5Y 2.5/1</u>	<u>c, distinct 10YR 4/6 loam to clay loam</u>
<u>Bt</u>	<u>14-17 in.</u>	<u>5Y 2.5/1</u>	<u>m, p 10YR 4/6, Clay</u>
<u>Btg</u>	<u>>17 in.</u>	<u>5Y 4/1</u>	<u>m, p 10YR 4/6, Clay</u>

Other Indicators:

None low chroma Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

formerly - ginger silt loam (excavated) Hydric Soils List:? No
PD Poorly drained Criteria Depth: 12 in.
Yes Rationale: has sufficient pos. indicators
Topsoil truncated to create drainage swale

HYDROLOGY

Landform/Topography: Swale, sloping to NW Wetland Drainage Pattern: Yes
 Inundation and Depth: Yes, 1-4 in. Water Table & Depth: apparent in.
 Hydrology Alteration: Yes, created swale
 Other Indicators: None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria:

Wetland Hydrology?

Comments:

18 Days in growing season Depth of Major Portion of Root Zone: 6 in.
Yes Rationale: low topog. position, apparent saturation

SUMMARY

Wetland?

Comments:

Yes Rationale: all 3 parameters have positive indicators
Sewage lagoons dug in 1971

Date(s): 7/26/95
1050

Field Investigator(s): LB, PS

365
 1050
 78.25

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☐ No ☒
- W22) % Cowardin classes present: POW ☒ PEM ☒ PSS ☒ PFO ☐ Other ☐
- W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐
- F30) Stream channel: N/A Natural ☐ Partly modified ☐ Extensive modifications ☐
- F31) Stream channel % shaded: N/A
- H36) Evidence of flooding? Yes ☒ No ☐ Describe ☐
- H37) Outflow restricted? Yes ☐ No ☒
- H38) Inflow restricted? self-contained pond No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
- P42) Hazards to public? No ☒ Yes ☒ Describe sewage treatment area
- P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☐ Barriers: posted + fenced
- R49) Trails/view areas? Existing ☐ Potential ☐ No existing or potential ☒
- A52) Rural area visual contrast: Significant ☒ Limited ☐ Little/none ☐
- A53) Urban landscape: Open/natural ☒ Groomed ☐ None ☐
- A54) Visual detractors? Yes ☒ No ☐ A55) Easily removed? Yes ☐ No ☒

From primary viewing area:

- A56) Odors: Natural ☐ Unnatural, occasional ☒ Unnatural, continuous ☐
- A57) Noise: Natural ☐ Light+natural ☐ Heavy+natural ☒ Heavy intrusive ☐
- A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
- A59) No. of Cowardin classes visible: 2 or more ☒ 1 ☐

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02(C6) Tillamook County Tax Lot: 200 Site No.: 50 (MUC2) 50-2
 Drainage Basin & Plot Location: E edge of sewage lagoon @ South end (UPL)
 Normal Circumstances? Yes Atypical Situation? Yes Problem Area? No Sample Point: 2
 Land Use & Condition: vacant, created drainage swale, not mowed

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>Hala</u>	<u>FAC</u>	<u>80</u>	<u>H</u>	<u>✓</u>					
<u>Ingl</u>	<u>Fach</u>	<u>5</u>	<u>H</u>						
<u>Anod</u>	<u>Fach</u>	<u>10</u>	<u>H</u>						
<u>LOCO</u>	<u>Fac</u>	<u>25</u>	<u>H</u>	<u>✓</u>					
<u>Rvdi</u>	<u>Fach</u>	<u>5</u>	<u>H</u>						

Hydrophytic Vegetation?
 Comments:

Unlikely 2/2 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
FAC-dominated communities are not good indicators of
wetland hydrology on the OR coast. Adj. veg along RR ROW
All other species are FACU. Cap, Sp, R, Rula, Alru
Soil x sp (16) collected Phar

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>Ap</u>	<u>0-7 in.</u>	<u>10YR 3/1</u>	<u>none Loam</u>
<u>Bt1</u>	<u>7-12 in.</u>	<u>2.5Y 2.5/1</u>	<u>cl 7.5YR 4/6 EL chy loam</u>
<u>Bt2</u>	<u>12-15 in.</u>	<u>2.5Y 5/2-3</u>	<u>m, p 5YR 5/8 CL " "</u>
<u>2C</u>	<u>15-18 in.</u>	<u>2.5Y 2/0</u>	<u>none SE silty chy</u>

Other Indicators:

✓ None _____ Gleyed matrix _____ Histosol/Histic epipedon
_____ Concretions _____ Sulfidic odor _____ Sandy w/high organic content

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

formerly Ginger silt loam (excavated) Hydric Soils List? No
Silt Sor what poorly drained Criteria Depth: 0 in.
No Rationale:
top soil truncated, relict subsoil conditions now closer to surface.

HYDROLOGY

Landform/Topography:

Inundation and Depth:

Hydrology Alteration:

Other Indicators:

terrace / FP former floodplain Wetland Drainage Pattern: No
None in. Water Table & Depth: Not apparent in.
Prevented pond & swale to North
✓ None _____ Sediment deposits _____ Water-stained leaves
_____ Drift lines _____ Water marks _____ Live oxidized rhizospheres

Saturation Criteria:

Wetland Hydrology?

Comments:

18 Days in growing season Depth of Major Portion of Root Zone: 6 in.
No Rationale: Insufficient pos. indicators

SUMMARY

Wetland?

Comments:

No Rationale: lacks hydrology indicator, relict soil indicators
near sewage lagoons - forested with gum to 1971

Date(s): 7/26/95 Field Investigator(s): PS, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☒ No ☒ *disturbed, topsoil removed*
- W22) % Cowardin classes present: POW ☒ PEM ☒ PSS ☒ PFO ☐ Other ☐
- W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐
- F30) Stream channel: Natural ☐ Partly modified ☐ Extensive modifications ☐
- F31) Stream channel % shaded: ☐
- H36) Evidence of flooding? Yes ☐ No ☒ Describe ☐
- H37) Outflow restricted? Yes ☐ No ☒
- H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
- P42) Hazards to public? No ☒ Yes ☐ Describe ☐
- P44) Access exist/feasible: Non-ADA ☒ ADA ☐ Obs. only ☒ Barriers: *fenced + posted*
- R49) Trails/view areas? Existing ☐ Potential ☐ No existing or potential ☒
- A52) Rural area visual contrast: Significant ☒ Limited ☒ Little/none ☐
- A53) Urban landscape: Open/natural ☒ Groomed ☐ None ☐
- A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☒ *(w/ treatment ponds)*

From primary viewing area:

- A56) Odors: Natural ☐ Unnatural, occasional ☒ Unnatural, continuous ☐
- A57) Noise: Natural ☐ Light+natural ☐ Heavy+natural ☒ Heavy intrusive ☐ *(fwy 101)*
- A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
- A59) No. of Cowardin classes visible: 2 or more ☒ 1 ☐

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02 (CB) Tillamook County Tax Lot: 1000 Site No.: 51 (MCE3) 51-1 (JPL)
 Drainage Basin & Plot Location: Forested area 200 ft. S of water trt pond, W end of forest
 Normal Circumstances? yes Atypical Situation? No Problem Area? No Sample Point: 1
 Land Use & Condition: Forested, undeveloped

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>Pomu</u>	<u>Status</u>	<u>Cover</u>			<u>Picea sitchensis</u>	<u>Status</u>	<u>Cover</u>		
<u>Salal (Gash)</u>	<u>Facu</u>	<u>30</u>	<u>H</u>	<u>✓</u>		<u>Fac</u>	<u>75</u>	<u>T</u>	<u>✓</u>
<u>Vaccinium parvifolium</u>	<u>Facu</u>	<u>15</u>	<u>S</u>	<u>✓</u>					
<u>Sara</u>	<u>Facu</u>	<u>5</u>	<u>S</u>	<u>✓</u>					
<u>Salmonberry</u>	<u>Facu</u>	<u><5</u>	<u>S</u>						
	<u>Facu</u>	<u><5</u>	<u>S</u>						

Hydrophytic Vegetation? No $\frac{1}{14} = 25$ % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: Inside W edge of woods, Phac meadow w/ Salix, Alru at margins. See aerials.

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>O</u>	<u>3-0</u> in.		<u>duff</u>
<u>A1</u>	<u>0-6</u> in.	<u>10 YR 2/2</u>	<u>none</u> <u>Lamincl's few 7.5 YR 5/8 Root frag.</u>
<u>A2</u>	<u>6-15</u> in.	<u>10 YR 2/1</u>	<u>none</u> <u>Loam</u>
<u>AD</u>	<u>15-20</u> in.	<u>2.5 Y 2/0</u>	<u>none</u> <u>Loam</u>
<u>Bw</u>	<u>20-</u> in.	<u>10 YR 3/3</u>	<u>none</u> <u>SE silty loam</u>

Other Indicators: X None _____ Gleyed matrix _____ Histosol/Histic epipedon
_____ Concretions _____ Sulfidic odor _____ Sandy w/high organic content

Series/Phase: Ginger silt loam Hydric Soils List? No
 Drainage Class: MWD moderately well drained Criteria Depth: 0' in.
 Hydric Soil? NO Rationale: lacks sufficient positive indicators, dark topsoil
 Comments: underlain by unmatted brown subsoil

HYDROLOGY

Landform/Topography: gentle slope to West Wetland Drainage Pattern: no
 Inundation and Depth: none in. Water Table & Depth: 720 in.
 Hydrology Alteration: none in immediate vicinity, but urban development further south
 Other Indicators: X None _____ Sediment deposits _____ Water-stained leaves
_____ Drift lines _____ Water marks _____ Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 9-12 in.
 Wetland Hydrology? NO Rationale: Lack sufficient positive indicators
 Comments: _____

SUMMARY

Wetland? NO Rationale: lacks all pos. indicators
 Comments: despite dark-colored topsoil, this location does not indicate evidence of extended wetness

Date(s): 7/26/95 Field Investigator(s): PS LD

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No X
W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other None
W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: _____
H36) Evidence of flooding? Yes _____ No _____ Describe _____
H37) Outflow restricted? Yes _____ No _____
H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No _____ Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
A53) Urban landscape: Open/natural _____ Groomed _____ None _____
A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02 (C8) Tillamook County Tax Lot: 1000 Site No.: 51 ^{(MCC3) 51-2} _{PEHC}
 Drainage Basin & Plot Location: Depression NE corner of Elliot & Spruce
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 2
 Land Use & Condition: Vacant, open meadow / depression, undisturbed

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
<u>Papa</u>	<u>OBL</u>	<u>75</u>	<u>H</u>	<u>✓</u>					
<u>Distichlis spicata</u>	<u>FACW</u>	<u>20</u>	<u>H</u>	<u>✓</u>					
<u>to N: Caob, Phar</u>									
<u>to S: Atriplex patula</u>									

Hydrophytic Vegetation?

Comments:

Yes $\frac{2}{2} = 100$ % of domin. species are OBL, FACW, FAC+ and/or FAC
 Adj. forest very similar to SFI of site 51. Grass bcs dom. just 6' away to SW, w/ bracken; 35' N to end of Caob / Phar, 50' to forest.

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-11</u> in.	<u>2.5 Y 3/1</u>	<u>none, many 7.5 YR 3/4 root stains</u> Loam
<u>AB</u>	<u>11-14</u> in.	<u>2.5 Y 3/2</u>	<u>m.p. 7.5 YR 4/6 mottles</u> <u>SL silt loam</u>
<u>2C</u>	<u>14-20</u> in.	<u>2.5 Y 2/0</u>	<u>none</u> <u>SL silt high OM, VM, loam</u>

Other Indicators:

✓ None _____ Gleyed matrix _____ Histosol/Histic epipedon
_____ Concretions _____ Sulfidic odor _____ Sandy w/high organic content

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

formerly Coquille silt loam (now diked) Hydric Soils List: _____
PD to VPD Poorly to very poorly Criteria Depth: 12 in.
Yes Rationale: has suffic. pos. indicators
buried A horiz. below 14 in. (now considered underlying parent material)

HYDROLOGY

Landform/Topography: depression NE of intersection Spruce & Elliot Wetland Drainage Pattern: Y depression
 Inundation and Depth: 2-6 app. in. Water Table & Depth: app. at surf. in.
 Hydrology Alteration: yes, impounded by Elliot St.
 Other Indicators: _____ None _____ Sediment deposits X Water-stained leaves
_____ Drift lines _____ Water marks _____ Live oxidized rhizospheres

Saturation Criteria:

Wetland Hydrology?

Comments:

18 Days in growing season Depth of Major Portion of Root Zone: 12 in.
Yes Rationale: has suffic. pos. indic.

SUMMARY

Wetland?

Comments:

Yes Rationale: All 3 parameters have pos. indicators

Date(s):

7/26/95
12:20

Field Investigator(s):

LB, PS

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☐ No ☒
- W22) % Cowardin classes present: POW ☐ PEM ¹⁰⁰ ☒ PSS ☐ PFO ☐ Other ☐
- W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☐ <25 ft. ☒ NA
- F30) Stream channel: None Natural ☐ Partly modified ☐ Extensive modifications ☐
- F31) Stream channel % shaded: None
- H36) Evidence of flooding? Yes ☒ No ☐ Describe 2-8 in ponding
- H37) Outflow restricted? Yes ☒ No ☐
- H38) Inflow restricted? NA No ☐ Yes, can be remedied ☐ Yes, cannot be remedied ☐
- P42) Hazards to public? No ☒ Yes ☐ Describe ☐
- P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☒ Barriers: brush + berms
- R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
- A52) Rural area visual contrast: Significant ☒ Limited ☐ Little/none ☐
- A53) Urban landscape: Open/natural ☒ Groomed ☐ None ☐
- A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☒ NA

From primary viewing area:

- A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
- A57) Noise: Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐
- A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
- A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S., R. 10W, SW 1/4 of Sec. 02-60 Tillamook County Tax Lot: 600 Site No.: 52 (MCC4) 52-1 E2EMP
 Drainage Basin & Plot Location: Dece meadow w of Elliot, ~ 200' N of Spruce
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 1
 Land Use & Condition: undisturbed native prairie

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
Dece	FACW	60		✓			< 5		
Poa	Obl	55		✓	Hordeum brachyatherum	FACW			
Triglochin maritimum		10							
Agrostis sp.	FACW-LAC	25							
Juncus balticus	FACW	25							
Hydrophytic Vegetation?	Yes	2/2 = 100	% of domin. species are OBL, FACW, FAC+ and/or FAC						
Comments:									

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
A1	0-1 in.	2.5Y 2/p	none Loam
A2	1-12 in.	2.5Y 3/2	f, f 7.5 YR 4/6 SL silt loam
A3	12-16 in.	2.5Y 3/1	c, d 7.5 YR 4/6 SL silt loam
Bw	16-22 in.	2.5Y 5/2	m, p 7.5 YR 3/4 SL loam sat'd

Other Indicators:

☒ None☐ Gleyed matrix☐ Histosol/Histic epipedon☐ Concretions☐ Sulfidic odor☐ Sandy w/high organic content

Series/Phase:

Coquille silt loam

Hydric Soils List?

yes

Drainage Class:

PD Poorly drained

Criteria Depth:

12 in.

Hydric Soil?

Yes

Rationale: SPI (low chroma, saturation)

Comments:

HYDROLOGY

Landform/Topography: low marine terrace Wetland Drainage Pattern: tidal zone
 Inundation and Depth: temporary in. Water Table & Depth: at surface in.
 Hydrology Alteration: slight upgradient diversion (Elliot st), but not sufficient
 Other Indicators: ☒ None ☐ Sediment deposits ☐ Water-stained leaves
☒ Drift lines (tidal debris) ☐ Water marks ☐ Live oxidized rhizospheres
 Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 9 in.
 Wetland Hydrology? Yes Rationale: has sufficient positive indicators
 Comments: * related to high tides

SUMMARY

Wetland?

Yes

Rationale: all parameters have positive indicators

Comments:

★ ★

Gorgeous site, highly significant, Diverse native flora.Relict tidal prairie.Signific.
wetland

Date(s):

7/26/95

Field Investigator(s):

PS, LB

12:50

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No X
W22) % Cowardin classes present: POW _____ PEM X PSS _____ PFO _____ Other estuarine
W26) Urban veg. buffer (unmowed): >50 ft. X 25-50 ft. _____ <25 ft. _____
F30) Stream channel: sloughs Natural X Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: 30-10 (depending upon location)
H36) Evidence of flooding? Yes X No _____ Describe tidal; log debris
H37) Outflow restricted? Yes _____ No X
H38) Inflow restricted? No X Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No X Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA X ADA _____ Obs. only ✓ Barriers: berm
R49) Trails/view areas? Existing _____ Potential X No existing or potential _____
A52) Rural area visual contrast: Significant X Limited _____ Little/none _____
A53) Urban landscape: n/a Open/natural _____ Groomed _____ None _____
A54) Visual detractors? Yes _____ No X A55) Easily removed? Yes _____ No _____

From primary viewing area:

A56) Odors: Natural X Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural X Light+natural _____ Heavy+natural _____ Heavy intrusive _____
A58) View: Whole/most of wetland X Small portion _____ Describe _____
A59) No. of Cowardin classes visible: 2 or more _____ 1 X

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S., R. 10W, SW 1/4 of Sec. 02 (cc) Tillamook County Tax Lot: 3500 Site No.: 53 (DOU2) (JPL)
 Drainage Basin & Plot Location: Meadow s. of Spruce, W of Elliot (Hurliman's)
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 53-1
 Land Use & Condition: open meadow, has been hayed regularly
Vacant, (not yet cut this summer)

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>Agte</u> ^{<u>Agrostis tenuis</u>}	<u>Status</u>	<u>Cover</u>			<u>Rubi</u>	<u>Status</u>	<u>Cover</u>		
<u>Potentilla pacifica</u>	<u>fac</u>	<u>65</u>	<u>H</u>	<u>✓</u>	<u>Anod</u>	<u>facu</u>	<u><5</u>	<u>S</u>	
<u>Hola</u>	<u>obl</u>	<u>45</u>	<u>H</u>	<u>✓</u>					
<u>Loco</u>	<u>fac</u>	<u>10</u>	<u>H</u>						
<u>Rula</u>	<u>fac</u>	<u>8</u>	<u>H</u>						
	<u>facu</u>		<u>S</u>						

Hydrophytic Vegetation? Yes $\frac{2}{12} = \frac{100}{\%}$ of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: 50' S to low patch w/ Eleocharis

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>Ap</u>	<u>0-12</u> in.	<u>10YR 2/1</u>	<u>none</u> <u>st</u> <u>Silt loam</u>
<u>A</u>	<u>12-17</u> in.	<u>2.5 YR 2.5/0</u>	<u>SCL</u>
<u>Bw1</u>	<u>17-23</u> in.	<u>10YR 3/3</u>	<u>"</u>
<u>Bw2</u>	<u>23-</u> in.	<u>2.5Y 4/2</u>	<u>w/p. 10Y2 4/6</u> <u>"</u>

Other Indicators: ☒ None ☐ Gleyed matrix ☐ Histosol/Histic epipedon
☐ Concretions ☐ Sulfidic odor ☐ Sandy w/high organic content

Series/Phase: Ginger silt loam Hydric Soils List? No
 Drainage Class: ~~SOP~~ Somewhat poorly Criteria Depth: 0 in.
 Hydric Soil? No Rationale: Lack suff. pos. ind.
 Comments:

HYDROLOGY

Landform/Topography: low marine terrace Wetland Drainage Pattern: No ^x
 Inundation and Depth: Not apparent in. Water Table & Depth: Not apparent in.
 Hydrology Alteration: Not
 Other Indicators: ☒ None ☐ Sediment deposits ☐ Water-stained leaves
☐ Drift lines ☐ Water marks ☐ Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 8 in.
 Wetland Hydrology? No Rationale: Lacks suff. pos. ind.
 Comments:

SUMMARY

Wetland? No Rationale: Lacks pos. ind. for soil + hydrology
 Comments:

Date(s): 7/26/95 Field Investigator(s): LS, PS

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No _____
- W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
- W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
- F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
- F31) Stream channel % shaded: _____
- H36) Evidence of flooding? Yes _____ No _____ Describe _____
- H37) Outflow restricted? Yes _____ No _____
- H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
- P42) Hazards to public? No _____ Yes _____ Describe _____
- P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
- P49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
- A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
- A53) Urban landscape: Open/natural _____ Groomed _____ None _____
- A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
- A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
- A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
- A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02 (cc) Tillamook County Tax Lot: or 4800 Site No.: 53 (DOU 2) (E2EMP)
 Drainage Basin & Plot Location: S end of Hurlihan prop, vacant
 Normal Circumstances? yes Atypical Situation? no Problem Area? no Sample Point: 53-2
 Land Use & Condition: relatively undisturbed, lower than SP1 by < 12"; vacant

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>Caob</u>	Status	Cover			<u>Pisi (8' tall)</u>	Status	Cover		
<u>Potentilla pacifica</u>	obl	35	H	✓	<u>Lain</u>	fac	5	T	
<u>Epilobium sp.</u>	obl	65	H	✓		fac	<5	S	
<u>Oesa</u>	obl	25	H						
<u>Jwet</u>	obl	10	H						
	facw	25	H	✓					

Hydrophytic Vegetation? yes 3/3 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: gross prop. boundary, 100'S is Dece meadow, Juncus balticus
(coll @ 52 SP1) w/ Popa, Caob w/ Popa

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>O</u>	<u>6-0</u> in.		<u>organic debris</u> <u>st silt loam</u>
<u>A</u>	<u>0-11</u> in.	<u>2.5 Y 3/2</u>	<u>mottles too faint to distinguish</u>
<u>AB</u>	<u>11-22</u> in.	<u>2.5 Y 2.5/0</u>	<u>10 YR 2/1</u> " " " "
<u>B</u>	<u>22-26</u> in.	<u>7.5 YR 3/4</u>	<u>7.5 YR 4/1</u> " " " " , saturated
<u>2C1</u>	<u>26-36</u> in.	<u>2.5 Y 2.5/0</u>	<u>none</u> " " " " , saturated
<u>2C2</u>	<u>36-</u>		

Other Indicators: None Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: Coquille silt loam Hydric Soils List? yes
 Drainage Class: Poorly-drained Criteria Depth: 12 in.
 Hydric Soil? yes Rationale: has sufficient positive indicators
 Comments:

HYDROLOGY

Landform/Topography: Tidal plain Wetland Drainage Pattern: Edge of tidal plain
 Inundation and Depth: Seasonal, 0-3 in. Water Table & Depth: 24 to 10 in.*
 Hydrology Alteration: none (urban development to north, but no influence)

Other Indicators: None Sediment deposits Water-stained leaves
Drift lines (from debris nearby) Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 8 in.
 Wetland Hydrology? yes Rationale: has suffic. pos. indic.; tidal saturation
 Comments: * related to high tides

SUMMARY

Wetland? yes Rationale: all 3 parameters have positive indicators
 Comments:

Date(s): 7/26/95 Field Investigator(s): PS, LTB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No X Estuarine
- W22) % Cowardin classes present: POW _____ PEM X PSS _____ PFO _____ Other _____
- W26) Urban veg. buffer (unmowed): >50 ft. X 25-50 ft. _____ <25 ft. _____
- F30) Stream channel: rough Natural _____ Partly modified _____ Extensive modifications _____
- F31) Stream channel % shaded: 10-30%
- H36) Evidence of flooding? Yes X No _____ Describe tidal duration major storm events
- H37) Outflow restricted? Yes _____ No X
- H38) Inflow restricted? No X Yes, can be remedied _____ Yes, cannot be remedied _____
- P42) Hazards to public? No _____ Yes X Describe natural tidal channels
- P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only X Barriers: _____
- R49) Trails/view areas? Existing _____ Potential X No existing or potential _____
- A52) Rural area visual contrast: Significant X Limited _____ Little/none _____
- A53) Urban landscape: Open/natural _____ Groomed _____ None _____
- A54) Visual detractors? Yes _____ No X A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural X Unnatural, occasional _____ Unnatural, continuous _____
- A57) Noise: Natural X Light+natural _____ Heavy+natural _____ Heavy intrusive _____
- A58) View: Whole/most of wetland X Small portion _____ Describe _____
- A59) No. of Cowardin classes visible: 2 or more _____ 1 X

Location contiguous w/ lg. tidal wetland prairie.

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02(a) Tillamook County Tax Lot: 4800 Site No.: 53 (E2EMN)
 Drainage Basin & Plot Location: Nr. Tillamook Bay, lg. meadow s. of Hurliman prop.
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 53-3
 Land Use & Condition: vacant, grassy meadow, undisturbed remnant of tidal prairie

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
<u>Dec</u>	<u>facw</u>	<u>30</u>	<u>H</u>	<u>✓</u>	<u>Hordeum brachyantherum</u>	<u>facw</u>	<u><5</u>	<u>H</u>	
<u>Potentilla pacifica</u>	<u>obl</u>	<u>70</u>	<u>H</u>	<u>✓</u>					
<u>Agal</u>	<u>fac</u>	<u>18</u>	<u>H</u>						
<u>Juncus balticus</u>	<u>obl</u>	<u>8</u>	<u>H</u>						

Hydrophytic Vegetation? yes $2/2 = 100$ % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: community similar from here to trees, except for some Distichlis flats at N end.

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A1</u>	<u>0-1</u> in.	<u>2.5 Y 2/0</u>	<u>no mottles, silt loam, moist</u>
<u>A2</u>	<u>1-7</u> in.	<u>2.5 Y 3/2</u>	<u>none, SK silt loam, very moist</u>
<u>AB</u>	<u>7-12</u> in.	<u>2.5 Y 3/1</u>	<u>C, d 7.5 YR 4/3 SK silt loam, saturated</u>
<u>2C</u>	<u>12-20</u> in.	<u>2.5 Y 2/0</u>	<u>none, Loam, "</u>

Other Indicators: X None Gleyed matrix Histosol/Histic epipedon
 Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: Cogville silt loam Hydric Soils List?: yes
 Drainage Class: poorly to very poorly Criteria Depth: 12 in.
 Hydric Soil? yes Rationale: has sufficient positive indicators
 Comments:

HYDROLOGY

Landform/Topography: tidal plain Wetland Drainage Pattern: yes, tidal flat
 Inundation and Depth: in. Water Table & Depth: 12-0 in. *
 Hydrology Alteration: None (very minor up gradient urban development)
 Other Indicators: None Sediment deposits Water-stained leaves
X Drift lines (tidal debris) Water marks Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 8 in.
 Wetland Hydrology? yes Rationale: has sufficient pos. indicators
 Comments: * related to high tides

SUMMARY

Wetland? yes Rationale: all 3 parameters have sufficient positive indicators
 Comments: ★ SIGNIFICANT NATIVE TIDAL PRAIRIE ★

Date(s): 7/26/95 Field Investigator(s): PS, BD, LW, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☐ No ☒
W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☐ PFO ☐ Other tidal/estuarine
W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐
F30) Stream channel: is rough Natural ☒ Partly modified ☐ Extensive modifications ☐
F31) Stream channel % shaded: 10-20%
H36) Evidence of flooding? Yes ☒ No ☐ Describe matted debris, esp @ N of parcel
H37) Outflow restricted? Yes ☐ No ☒ In Distichlis flats; woody debris
H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
P42) Hazards to public? No ☒ Yes ☐ Describe ☐
P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☒ Barriers: rough, tussocky ground
R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
A52) Rural area visual contrast: Significant ☒ Limited ☐ Little/none ☐ attractive prairie
A53) Urban landscape: n/a Open/natural ☐ Groomed ☐ None ☐
A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
A57) Noise: Natural ☒ Light+natural ☐ Heavy+natural ☐ Heavy intrusive ☐
A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02(22) Tillamook County Tax Lot: 4700 Site No.: 53 (DOW 2-53-4) (PSSR, OBS)
 Drainage Basin & Plot Location: edge of meadow, 200' NE of SP3, edge of tidal prairie
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 53-4
 Land Use & Condition: wooded area, vacant

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>Salix hookeriana</u>	<u>facw-</u>	<u>70</u>	<u>S</u>	<u>✓</u>	<u>Atfi</u>	<u>fac</u>	<u><5</u>	<u>H</u>	
<u>Pisi</u>	<u>fac</u>	<u>20</u>	<u>T</u>	<u>✓</u>					
<u>Alrv</u>	<u>fac</u>	<u>10</u>	<u>T</u>						
<u>Caob</u>	<u>obl</u>	<u>60</u>	<u>H</u>	<u>✓</u>					
<u>Desa</u>	<u>obl</u>	<u><5</u>	<u>H</u>						

Hydrophytic Vegetation? yes 3/13 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: on nurse logs, Salal, Poni (facw)
(facw)

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	in.		
	in.		
	in.		
	in.		
	in.		

Other Indicators:

None Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

Cogwille silt loampoorly drainedyes

Rationale:

Hydric Soils List: yesCriteria Depth: 12 in.

HYDROLOGY

Landform/Topography: Terrace / gently sloping to south Wetland Drainage Pattern: tidal prairie
 Inundation and Depth: none in. Water Table & Depth: 0-10 in. *
 Hydrology Alteration: none

Other Indicators:

None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria:

Wetland Hydrology?

Comments:

18 Days in growing seasonDepth of Major Portion of Root Zone: NA in.yes Rationale:* related to / changes with tidal fluctuations

SUMMARY

Wetland?

Comments:

yes Rationale: all 3 parameters have positive indicators
sample location represents PSSC plant community
around fringe of tidal prairie

Date(s):

7/26/95

Field Investigator(s):

LW, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☐ No ☒
W22) % Cowardin classes present: POW ☐ PEM ☐ PSS ☒ PFO ☐ Other ☐
W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐
F30) Stream channel: *none* Natural ☐ Partly modified ☐ Extensive modifications ☐
F31) Stream channel % shaded: *NA*
H36) Evidence of flooding? Yes ☒ No ☐ Describe *occasional very high tide*
H37) Outflow restricted? Yes ☐ No ☒
H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
P42) Hazards to public? No ☒ Yes ☐ Describe ☐
P44) Access exist/feasible: Non-ADA ☒ ADA ☐ Obs. only ☐ Barriers: *(brush)*
R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
A52) Rural area visual contrast: Significant ☒ Limited ☐ Little/none ☐
A53) Urban landscape: *N/A* Open/natural ☐ Groomed ☐ None ☐
A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
A57) Noise: Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐
A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
A59) No. of Cowardin classes visible: 2 or more ☒ 1 ☐
US 101 to east

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02 (cc) Tillamook County Tax Lot: _____ Site No.: 54 (DOU 254-1) (OPL)
 Drainage Basin & Plot Location: one lot S of S end of Hare (1 blk S of Salmon)
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 54-1
 Land Use & Condition: vacant wooded area betw. yard + Dece meadow

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>Pisi</u>	Status	Cover			<u>Vapa</u>	Status	Cover		
<u>Pyrs fusca</u>	<u>FACW</u>	<u>70</u>	<u>T</u>	<u>✓</u>	<u>Atti</u>	<u>NL</u>	<u><5</u>		
<u>Alrv</u>	<u>FAC</u>	<u>20</u>	<u>Sh</u>	<u>✓</u>	<u>Pomu</u>	<u>FAC</u>	<u><5</u>		
<u>Rusp</u>	<u>FAC+</u>	<u>10</u>	<u>Sh</u>	<u>✓</u>		<u>FAC+</u>	<u><5</u>		
<u>Gash</u>	<u>FAC</u>	<u>5</u>	<u>Sh</u>						
	<u>FAC</u>	<u>5</u>	<u>H</u>						

Hydrophytic Vegetation? yes $3/3 = 100\%$ % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: adj. wet area 50' S similar to site 53 sp 3
(Dece meadow) but has more Juncus balticus.

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A</u>	<u>0-6</u> in.	<u>10YR 2/1</u>	<u>none</u> <u>Loam</u>
<u>BA</u>	<u>6-18</u> in.	<u>5Y 2.5/1</u>	<u>none</u> <u>Silt</u> <u>Silty clay loam</u>
<u>B</u>	<u>18-26</u> in.	<u>2.5Y 2.5/1</u>	<u>fid</u> <u>10YR 4-5/6</u> <u>Silt +</u>
	<u>26</u> in.		<u>rock refusal</u>

Other Indicators: ✓ None _____ Gleyed matrix _____ Histosol/Histic epipedon
_____ Concretions _____ Sulfidic odor _____ Sandy w/high organic content

Series/Phase: Ginger silt loam Hydric Soils List?: No
 Drainage Class: SWP Somewhat poorly drained Criteria Depth: 6 in.
 Hydric Soil? No Rationale: LACKS suff. pos. indic.
 Comments: dark matrix color due to forest O.M.

HYDROLOGY

Landform/Topography: terrace x bottomland interface Wetland Drainage Pattern: No
 Inundation and Depth: None in. Water Table & Depth: not apparent in.
 Hydrology Alteration: slight upgrad. urban development
 Other Indicators: ✓ None _____ Sediment deposits _____ Water-stained leaves
_____ Drift lines _____ Water marks _____ Live oxidized rhizospheres

Saturation Criteria: R Days in growing season _____ Depth of Major Portion of Root Zone: 9 in.
 Wetland Hydrology? N Rationale: lacks suff. pos. indic.
 Comments: location slightly above tidal influence

SUMMARY

Wetland? No Rationale: soil + hydrology parameters
 Comments: lack sufficient wetness

Date(s): 7-26-95 Field Investigator(s): LB, PS
1700

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☐ No ☒
W22) % Cowardin classes present: POW ☐ PEM ☐ PSS 100% PFO ☐ Other ☐
W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐
F30) Stream channel: none Natural ☐ Partly modified ☐ Extensive modifications ☐
F31) Stream channel % shaded: N/A
H36) Evidence of flooding? Yes ☒ No ☐ Describe Temporary
H37) Outflow restricted? Yes ☐ No ☒
H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
P42) Hazards to public? No ☒ Yes ☐ Describe ☐
P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☒ Barriers: ☐
R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
A52) Rural area visual contrast: Significant ☒ Limited ☐ Little/none ☐
A53) Urban landscape: N/A Open/natural ☐ Groomed ☐ None ☐
A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
A57) Noise: Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐
A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
A59) No. of Cowardin classes visible: 2 or more ☒ 1 ☐

Highway 101
to east

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02(cc) Tillamook County Tax Lot: 1 blk so of Salmon, woodland slightly E of there Site No.: 54 (DOU 2) 54-2 (PSSR)
 Drainage Basin & Plot Location: 1 blk so of Salmon, woodland slightly E of there
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 54-2
 Land Use & Condition: Vacant, edge of wooded area (inside)

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>Pisi</u>	<u>fac</u>	<u>20</u>	<u>T</u>	<u>✓</u>	<u>Caob</u>	<u>obl</u>	<u>40</u>	<u>H</u>	<u>✓</u>
<u>Selx hook.</u>	<u>facw</u>	<u>20</u>	<u>S</u>	<u>✓</u>	<u>Potentilla pacifica</u>	<u>obl</u>	<u>10</u>	<u>H</u>	<u>✓</u>
<u>boih</u>	<u>fac+</u>	<u>15</u>	<u>S</u>	<u>✓</u>					
<u>Rusp</u>	<u>fac+</u>	<u>10</u>	<u>S</u>	<u>✓</u>					
<u>Rula</u>	<u>facu+</u>	<u><5</u>	<u>S</u>						

Hydrophytic Vegetation? yes 6/6 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: 25' N, Caob + Oesa meadow

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A1</u>	<u>0-9</u> in.	<u>10YR 2/1</u>	<u>SL none VM</u>
<u>A2</u>	<u>9-21</u> in.	<u>2.5 Y 2.5/1</u>	<u>cl 7.5 YR 3/4 SL VM</u>
	<u>21</u> in.		<u>rock refusal</u>

Other Indicators:

☒ None ☐ Gleyed matrix ☐ Histosol/Histic epipedon
☐ Concretions ☐ Sulfidic odor ☐ Sandy w/high organic content

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

Ginger silt loam, wet phase Hydric Soils List? No
Pd poorly drained Criteria Depth: 12 in.
Yes Rationale: has sufficient positive indicators in criteria depth

HYDROLOGY

Landform/Topography:

Inundation and Depth:

Hydrology Alteration:

Other Indicators:

bottomland, just beyond edge of tidal prairie Wetland Drainage Pattern: Yes
not at present in. Water Table & Depth: apparent, 9" in.
no
☒ None ☐ Sediment deposits ☐ Water-stained leaves
☐ Drift lines ☐ Water marks ☐ Live oxidized rhizospheres

Saturation Criteria:

Wetland Hydrology?

Comments:

18 Days in growing season Depth of Major Portion of Root Zone: 8 in.
Yes Rationale: has sufficient wetness in major part of root zone

SUMMARY

Wetland?

Comments:

yes Rationale: all three parameters have positive indicators

Date(s):

7/26/95

Field Investigator(s):

PS, LB5:20

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☐ No ☒
- W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☒ PFO ☒ Other ☐
- W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐
- F30) Stream channel: none Natural ☐ Partly modified ☐ Extensive modifications ☐
- F31) Stream channel % shaded: ☐
- H36) Evidence of flooding? Yes ☒ No ☐ Describe temporary
- H37) Outflow restricted? Yes ☐ No ☒
- H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
- P42) Hazards to public? No ☒ Yes ☐ Describe ☐
- P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☒ Barriers: woods + brush
- R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
- A52) Rural area visual contrast: Significant ☐ Limited ☒ Little/none ☐
- A53) Urban landscape: N/A Open/natural ☒ Groomed ☐ None ☐
- A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

- A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
- A57) Noise: Natural ☒ Light+natural ☐ Heavy+natural ☐ Heavy intrusive ☐
- A58) View: Whole/most of wetland ☒ Small portion ☒ Describe shrubs block view
- A59) No. of Cowardin classes visible: 2 or more ☒ 1 ☐

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02 (CD) Tillamook County Tax Lot: 1100? Site No.: 55 (Duv2) 55-1 (UPL)
 Drainage Basin & Plot Location: Inside N edge of woods S of museum clearing
 Normal Circumstances? Yes Atypical Situation? No Problem Area? NO Sample Point: 55-1
 Land Use & Condition: vacant, wooded, logged maybe 50 yrs ago

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
Pomv	Status	Cover			Vapa	Status	Cover		
Gash	facu	50	H	✓		NL	5	S	
Tshe	facu	30	S	✓					
Alrv	facu	40	T	✓					
Rusp	fac	45	F	✓					
	fac+	5	S						

Hydrophytic Vegetation? No 1/4 = 25 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
A1	0-18 in.	10YR 3-2/2	None SL silt loam
A2	18-21 in.	10YR 3/2	Cid 7.5 YR 3/4 SL silt loam
Bw	21 in.	2.5Y 4/4	mid 10YR 4/6 L+ loam +

Other Indicators: ☒ None ☐ Gleyed matrix ☐ Histosol/Histic epipedon
☐ Concretions ☐ Sulfidic odor ☐ Sandy w/high organic content
 Series/Phase: Ginger silt loam Hydric Soils List? No
 Drainage Class: mxd Criteria Depth: 0 in.
 Hydric Soil? No Rationale: Lacks sufficient positive indicators
 Comments: soil conditions representative of most of cleared site

HYDROLOGY

Landform/Topography: terrace Wetland Drainage Pattern: No
 Inundation and Depth: No in. Water Table & Depth: not evident in.
 Hydrology Alteration: No
 Other Indicators: ☒ None ☐ Sediment deposits ☐ Water-stained leaves
☐ Drift lines ☐ Water marks ☐ Live oxidized rhizospheres
 Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 8 in.
 Wetland Hydrology? No Rationale: Lacks sufficient wetness in major
 Comments: portion in root zone

SUMMARY

Wetland? No Rationale: Lacks all 3 parameters
 Comments:

Date(s): 7/26/95 Field Investigator(s): PS LB
 1825

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☐ No ☐
- W22) % Cowardin classes present: POW ☐ PEM ☐ PSS ☐ PFO ☐ Other ☐
- W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☐ <25 ft. ☐
- F30) Stream channel: Natural ☐ Partly modified ☐ Extensive modifications ☐
- F31) Stream channel % shaded: ☐
- H36) Evidence of flooding? Yes ☐ No ☐ Describe ☐
- H37) Outflow restricted? Yes ☐ No ☐
- H38) Inflow restricted? No ☐ Yes, can be remedied ☐ Yes, cannot be remedied ☐
- P42) Hazards to public? No ☐ Yes ☐ Describe ☐
- P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☐ Barriers: ☐
- R49) Trails/view areas? Existing ☐ Potential ☐ No existing or potential ☐
- A52) Rural area visual contrast: Significant ☐ Limited ☐ Little/none ☐
- A53) Urban landscape: Open/natural ☐ Groomed ☐ None ☐
- A54) Visual detractors? Yes ☐ No ☐ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

- A56) Odors: Natural ☐ Unnatural, occasional ☐ Unnatural, continuous ☐
- A57) Noise: Natural ☐ Light+natural ☐ Heavy+natural ☐ Heavy intrusive ☐
- A58) View: Whole/most of wetland ☐ Small portion ☐ Describe ☐
- A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☐

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, SW 1/4 of Sec. 02/00 Tillamook County Tax Lot: (no ap. 56)Site No.: 55 (DOU2) 55-2 (PFOC)Drainage Basin & Plot Location: E of Warren, 20 ft. E. of gravel roadNormal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 55-2Land Use & Condition: Alder woodland, vacant, just E of extension of Warren, approx. W of museum site

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
<u>Alru</u>	<u>fac</u>	<u>90</u>	<u>T</u>	<u>✓</u>	<u>Spiraea douglasii</u>	<u>facw</u>	<u>< 5</u>	<u>S</u>	
<u>Caob</u>	<u>obl</u>	<u>60</u>	<u>H</u>	<u>✓</u>	<u>Lain</u>	<u>fac+</u>	<u>20</u>	<u>S</u>	<u>✓</u>
<u>Sorbus aucuparia</u>	<u>NL</u>	<u>30</u>	<u>S</u>	<u>✓</u>					
<u>Rula</u>	<u>facut</u>	<u>10</u>	<u>S</u>						
<u>Amal</u>	<u>facu</u>	<u>30</u>	<u>S</u>	<u>✓</u>					

Hydrophytic Vegetation? Yes 3/5 = 60 % of domin. species are OBL, FACW, FAC+ and/or FAC
Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A1</u>	<u>0-9</u> in.	<u>10YR 2/1</u>	<u>f, d 7.5 YR 3/4 Loam</u>
<u>A2</u>	<u>9-16</u> in.	<u>5Y 3/1</u>	<u>f, d 10YR 3/4 & 7.5 YR 3/4 SILCL</u>
<u>B</u>	<u>16+</u> in.	<u>2.5 Y 4/2</u>	<u>m, p 10YR 4/6 SILCL silty clay loam</u>

Other Indicators:

☐ None ☒ Gleyed matrix ☐ Histosol/Histic epipedon
☐ Concretions ☐ Sulfidic odor ☐ Sandy w/high organic content

Series/Phase:

Brenner silt loam

Drainage Class:

PD Poorly drained

Hydric Soil?

Yes Rationale: Has suff. pos. indicators

Comments:

Hydric Soils List? yesCriteria Depth: 12 in.

HYDROLOGY

Landform/Topography:

bottom land

Inundation and Depth:

0-3 in. apparent in.

Hydrology Alteration:

Adj. urban development

Other Indicators:

☐ None ☐ Sediment deposits ☒ Water-stained leaves
☐ Drift lines ☐ Water marks ☐ Live oxidized rhizospheres

Saturation Criteria:

18

Days in growing season

Depth of Major Portion of Root Zone: 9 in.

Wetland Hydrology?

Yes

Rationale:

Has sufficient wetness in major portion of root zone

Comments:

SUMMARY

Wetland?

Yes

Rationale:

All 3 parameters have positive indicators

Comments:

Date(s): 7-26-95
18:45Field Investigator(s): PS, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No X
W22) % Cowardin classes present: POW _____ PEM _____ PSS 70% PFO 30% Other _____
W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. X <25 ft. _____
F30) Stream channel: none Natural _____ Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: N/A
H36) Evidence of flooding? Yes X No _____ Describe Seasonal
H37) Outflow restricted? Yes _____ No unknown
H38) Inflow restricted? unknown No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No X Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only X Barriers: _____
R49) Trails/view areas? Existing _____ Potential X No existing or potential _____
A52) Rural area visual contrast: Significant _____ Limited X Little/none _____
A53) Urban landscape: Open/natural _____ Groomed _____ None _____
A54) Visual detractors? Yes X No _____ A55) Easily removed? Yes _____ No _____

nearby garbage, debris.

From primary viewing area:

A56) Odors: Natural X Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural _____ Light+natural X Heavy+natural _____ Heavy intrusive _____
A58) View: Whole/most of wetland _____ Small portion X Describe _____
A59) No. of Cowardin classes visible: 2 or more X 1 _____

highway 101
to East

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 N, R. 10W, NE 1/4 of Sec. 34(AC) Tillamook County Tax Lot: 900 Site No.: 57 (LARI) 57-1 PFOC, ORS
 Drainage Basin & Plot Location: Larson Crk, E side Kohler prop., crk bed
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: (pbs) 1
 Land Use & Condition: Vacant; woodland; undisturbed

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>Alru</u>	<u>fac</u>	<u>65</u>	<u>I</u>	<u>✓</u>					
<u>Pisi</u>	<u>fac</u>	<u>25</u>	<u>I</u>	<u>✓</u>					
<u>Rusp</u>	<u>fac+</u>	<u>50</u>	<u>Sh</u>	<u>✓</u>					
<u>Lyam</u>	<u>obl</u>	<u>60</u>	<u>H</u>	<u>✓</u>					
<u>Chgl (Chrysothrix)</u>	<u>obl</u>	<u>10</u>	<u>H</u>						
<u>Madi</u>	<u>fac</u>	<u>10</u>	<u>H</u>						

Hydrophytic Vegetation? Yes 4/4 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	in.		
	in.		
	in.		
	in.		
	in.		

Other Indicators:

None Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase:

winemaHydric Soils List? no

Drainage Class:

Criteria Depth: in.Hydric Soil? in creek channel Rationale: see hydrologyComments: assumed - see hydrology

HYDROLOGY

Landform/Topography: midslope Wetland Drainage Pattern: yes
 Inundation and Depth: 0 to 3 in. Water Table & Depth: at surface in.

Hydrology Alteration:

Other Indicators:

None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria:

18

Days in growing season

Depth of Major Portion of Root Zone: in.

Wetland Hydrology?

yes

Rationale:

Comments:

saturated to surfacesample point is in creek channel.

SUMMARY

Wetland?

Yes

Rationale:

Comments:

wetlands varies from 5-15' in width on steep gradient hillside

Date(s):

7/27/05

Field Investigator(s):

PS LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☐ No ☒
W22) % Cowardin classes present: POW ☐ PEM 100 PSS ☐ PFO ☐ Other ☐
W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐
F30) Stream channel: Natural ☒ Partly modified ☐ Extensive modifications ☐
F31) Stream channel % shaded: 80%
H36) Evidence of flooding? Yes ☒ No ☐ Describe temporary
H37) Outflow restricted? Yes ☐ No ☒
H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
P42) Hazards to public? No ☐ Yes ☒ Describe steep hillside
P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☒ Barriers: private prop.
R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
A52) Rural area visual contrast: Significant ☐ Limited ☒ Little/none ☐
A53) Urban landscape: Open/natural ☒ Groomed ☐ None ☐
A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
A57) Noise: Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐
A58) View: Whole/most of wetland ☐ Small portion ☒ Describe ☐
A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

railroad nearby

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, NW 1/4 of Sec. 02 (b/c) Tillamook County Tax Lot: 100 Site No.: 58 (MCC1) 58-1 PSSC
 Drainage Basin & Plot Location: wooded lot, NE corner of junction of McCoy + Warren
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 1
 Land Use & Condition: vacant, fairly undisturbed. Trail into SE corner leads to SPI.

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>Caob</u>	<u>obl</u>	<u>20</u>	<u>H</u>	<u>✓</u>	<u>Spiraea douglasii</u>	<u>facw</u>	<u>5</u>	<u>Sh</u>	
<u>Atfi</u>	<u>fac</u>	<u>15</u>	<u>H</u>	<u>✓</u>					
<u>Lyam</u>	<u>obl</u>	<u>5</u>	<u>H</u>						
<u>Rusp</u>	<u>fact</u>	<u>15</u>	<u>Sh</u>						
<u>Salix hookeriana</u>	<u>facw</u>	<u>65</u>	<u>Sh</u>	<u>✓</u>					

Hydrophytic Vegetation? Yes 3/3 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: See map on reverse

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A1</u>	<u>0-8</u> in.	<u>2.5Y 3/1</u>	<u>f, d 10YR 4/4 SL VM silt loam</u>
<u>A2</u>	<u>8->18</u> in.	<u>5Y 2.5/1</u>	<u>f, d 7.5YR 3/4 SiCL</u>

Other Indicators: ✓ None _____ Gleyed matrix _____ Histosol/Histic epipedon
_____ Concretions _____ Sulfidic odor _____ Sandy w/high organic content

Series/Phase: Hebo silty clay loam (transitional) Hydric Soils List? Yes
 Drainage Class: PD to VPD Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: Has suffic. wetness in criteria depth
 Comments:

HYDROLOGY

Landform/Topography: Foots/lope Wetland Drainage Pattern: seepage area
 Inundation and Depth: NO in. Water Table & Depth: 10 in.
 Hydrology Alteration: slight upgrad. urban devel.
 Other Indicators: ✓ None _____ Sediment deposits _____ Water-stained leaves
_____ Drift lines _____ Water marks _____ Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 8 in.
 Wetland Hydrology? Yes Rationale: has sufficient positive indicators
 Comments: SPI is 5' vertically above creek bed. Creek runs thru SE corner of wooded area. Lots of seepage around creek. SP.

SUMMARY

Wetland? Yes Rationale: All 3 parameters have sufficient positive indicators
 Comments:

Date(s): 7/27/95 Field Investigator(s): PS LB
1400

creek area

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes _____ No ☒ ^{20%} ^{80%}

W22) % Cowardin classes present: POW _____ PEM ☒ PSS ☒ PFO _____ Other _____

W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. _____ <25 ft. _____

F30) Stream channel: Natural _____ Partly modified ☒ Extensive modifications _____

F31) Stream channel % shaded: 70

H36) Evidence of flooding? Yes ☒ No _____ Describe _____

H37) Outflow restricted? Yes _____ No ☒

H38) Inflow restricted? No ☒ Yes, can be remedied _____ Yes, cannot be remedied _____

P42) Hazards to public? No ☒ Yes _____ Describe _____

P44) Access exist/feasible: Non-ADA ☒ ADA _____ Obs. only _____ Barriers: rough ground, brush

R49) Trails/view areas? Existing _____ Potential ☒ No existing or potential _____

A52) Rural area visual contrast: Significant _____ Limited ☒ Little/none _____

A53) Urban landscape: Open/natural ☒ Groomed _____ None _____

A54) Visual detractors? Yes ☒ No _____ A55) Easily removed? Yes ☒ No _____
trash

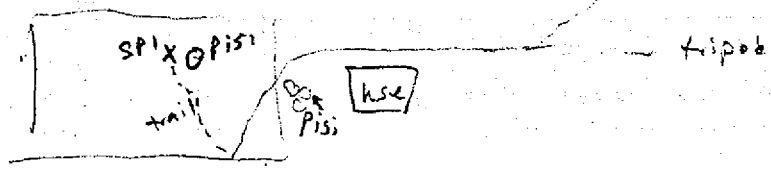
From primary viewing area:

A56) Odors: Natural ☒ Unnatural, occasional _____ Unnatural, continuous _____

A57) Noise: Natural _____ Light+natural ☒ Heavy+natural _____ Heavy intrusive _____

A58) View: Whole/most of wetland _____ Small portion ☒ Describe heavy brush

A59) No. of Cowardin classes visible: 2 or more ☒ 1 _____



tripod

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, NE 1/4 of Sec. 2 (A) Tillamook County Tax Lot: 3500 Site No.: 59 (DOU 1359-1) (UPL)
 Drainage Basin & Plot Location: Doughty; 30' N of spring, 250' N of Doughty Rd 300' E of house
 Normal Circumstances? Yes Atypical Situation? No Problem Area? No Sample Point: 1
 Land Use & Condition: hayfield, seasonally mowed
SP is 2' elev. above ditch below spring

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>Daq</u>	Status	Cover			<u>Rula</u>	Status	Cover		
	<u>facu</u>	<u>35</u>	<u>H</u>	<u>✓</u>		<u>facu+</u>	<u>35</u>	<u>S</u>	
<u>Hola</u>	<u>fac</u>	<u>25</u>	<u>H</u>	<u>✓</u>	<u>unidentified grasses</u>		<u>30</u>	<u>H</u>	<u>✓</u>
<u>Plantago lanceolata</u>	<u>fac</u>	<u>12</u>	<u>H</u>						
<u>Anod</u>	<u>facu</u>	<u>25</u>	<u>H</u>						
<u>Loco</u>	<u>fac</u>	<u>15</u>	<u>H</u>						

Hydrophytic Vegetation?

Comments:

No $\frac{1}{12} = 50$ % of domin. species are OBL, FACW, FAC+ and/or FAC
cut for hay so hard to ID grasses

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>Ap</u>	<u>0-13</u> in.	<u>2.5Y 2.5/1</u>	<u>none</u> <u>SIL</u> silt loam
<u>A</u>	<u>13-22</u> in.	<u>"</u>	<u>"</u> <u>SICL</u> silty clay loam
<u>B1</u>	<u>22-34</u> in.	<u>2.5Y 2.5/1</u>	<u>2.5Y 3/2</u> <u>f.p 7.5 YR 5/8</u> <u>SICL</u>
<u>B2</u>	<u>34</u> in.	<u>2.5Y 4/3</u>	<u>c.p 7.5 YR 5/8</u> <u>SICL f.d</u>
			<u>* f.d 2.5 Y 3/1</u>

Other Indicators:

☒ None ☐ Gleyed matrix ☐ Histosol/Histic epipedon
☐ Concretions ☐ Sulfidic odor ☐ Sandy w/high organic content

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

Quillayute silt loam Hydric Soils List? No
SPD somewhat poorly drained Criteria Depth: 0 in.
No Rationale: SP lacks sufficient pos. indic.
w/in criteria depth

HYDROLOGY

Landform/Topography:

Inundation and Depth:

Hydrology Alteration:

Other Indicators:

fast slope Wetland Drainage Pattern: no
none in. Water Table & Depth: apparent 22 in.
down gradient ditching
☒ None ☐ Sediment deposits ☐ Water-stained leaves
☐ Drift lines ☐ Water marks ☐ Live oxidized rhizospheres

Saturation Criteria:

Wetland Hydrology?

Comments:

18 Days in growing season Depth of Major Portion of Root Zone: 8 in.
N Rationale: lacks suffic. positive indicators

SUMMARY

Wetland?

Comments:

No Rationale: lacks suff. pos. indicators for all 3
parameters

Date(s): 7/27/95 Field Investigator(s): PS LB
15:00

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No _____
- W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
- W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
- F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
- F31) Stream channel % shaded: _____
- H36) Evidence of flooding? Yes _____ No _____ Describe _____
- H37) Outflow restricted? Yes _____ No _____
- H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
- P42) Hazards to public? No _____ Yes _____ Describe _____
- P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
- R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
- A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
- A53) Urban landscape: Open/natural _____ Groomed _____ None _____
- A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
- A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
- A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
- A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, NE 1/4 of Sec. 02 (A) Tillamook County Tax Lot: 3500 Site No.: 59 (DOU) 59-2
 Drainage Basin & Plot Location: Doughty; 30' N of Doughty Rd.; in wet community nr. ditch
 Normal Circumstances? yes Atypical Situation? No Problem Area? No Sample Point: 2
 Land Use & Condition: unmowed drainage within hay field

VEGETATION

Species	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
<u>Loco</u>	<u>fac</u>	<u>85</u>	<u>H</u>	<u>✓</u>					
<u>Spdo</u>	<u>facw</u>	<u>15</u>	<u>S</u>	<u>✓</u>					
<u>Lyam</u>	<u>obl</u>	<u>10</u>	<u>H</u>						
<u>Rvdi</u>	<u>facu</u>	<u>5</u>	<u>S</u>						
<u>Caob</u>	<u>obl</u>	<u>5</u>	<u>H</u>						

Hydrophytic Vegetation? yes 2/2 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments:

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
<u>A1</u>	<u>0-11 in.</u>	<u>2.5Y 2.5/1</u>	<u>none</u> <u>Silt</u> <u>Moist</u> <u>Silt loam</u>
<u>A2</u>	<u>11-16 in.</u>	<u>"</u>	<u>m, d</u> <u>7.5YR 4/6</u> <u>VM</u> <u>Silt silty clay loam</u>
<u>A3</u>	<u>16-20 in.</u>	<u>"</u>	<u>m, d</u> <u>10YR 4/4</u> <u>Silt L</u> <u>VM</u> <u>very moist</u>

Other Indicators: X None _____ Gleyed matrix _____ Histosol/Histic epipedon
_____ Concretions _____ Sulfidic odor _____ Sandy w/high organic content

Series/Phase: Hebo silt loam Hydric Soils List:? yes
 Drainage Class: Poorly drained Criteria Depth: 12 in.
 Hydric Soil? Yes Rationale: has sufficient positive indicators
 Comments:

HYDROLOGY

Landform/Topography: swale Wetland Drainage Pattern: Yes
 Inundation and Depth: at surface in. Water Table & Depth: apparent @ surface in.
 Hydrology Alteration: some ditching w/in swale
 Other Indicators: X None _____ Sediment deposits _____ Water-stained leaves
_____ Drift lines _____ Water marks _____ Live oxidized rhizospheres

Saturation Criteria: 18 Days in growing season Depth of Major Portion of Root Zone: 10 in.
 Wetland Hydrology? yes Rationale: has sufficient positive indic.
 Comments:

SUMMARY

Wetland? Yes Rationale: All 3 parameters
 Comments:

Date(s): 7/27/95 Field Investigator(s): PS, LB
16:15

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☐ No ☒
- W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☒ PFO ☐ Other ☐
- W26) Urban veg. buffer (unmowed): >50 ft. ☐ 25-50 ft. ☒ <25 ft. ☐
- F30) Stream channel: Natural ☐ Partly modified ☒ Extensive modifications ☐
- F31) Stream channel % shaded: 90
- H36) Evidence of flooding? Yes ☐ No ☒ Describe ☐
- H37) Outflow restricted? Yes ☐ No ☒
- H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
- P42) Hazards to public? No ☒ Yes ☐ Describe ☐
- P44) Access exist/feasible: *exist* Non-ADA ☐ ADA ☒ Obs. only ☐ Barriers: *can drive along road*
- R49) Trails/view areas? Existing ☒ Potential ☒ No existing or potential ☐
- A52) Rural area visual contrast: Significant ☐ Limited ☒ Little/none ☐
- A53) Urban landscape: *n/a* Open/natural ☐ Groomed ☐ None ☐
- A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

- A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
- A57) Noise: Natural ☒ Light+natural ☐ Heavy+natural ☐ Heavy intrusive ☐
- A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
- A59) No. of Cowardin classes visible: 2 or more ☒ 1 ☐

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S., R. 10W, NW 1/4 of Sec. 02(BD) Tillamook County Tax Lot: 201 Site No.: 60 (PENC)
 Drainage Basin & Plot Location: McCoy Creek, betw. McCoy + Tillamook Ave., W of Doughty Rd - Bentley's Jr.
 Normal Circumstances? Y Atypical Situation? N Problem Area? N Sample Point: 60
 Land Use & Condition: vacant - adjacent to pasture (N) and unmowed hillside meadow (S)

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
<u>RARE</u>	<u>Status</u>	<u>Cover</u>				<u>Status</u>	<u>Cover</u>		
	<u>FACW</u>	<u>60</u>	<u>H</u>	<u>X</u>					
<u>SCMI</u>	<u>OBL</u>	<u>20</u>	<u>H</u>	<u>X</u>					
<u>JOEF</u>	<u>FACW</u>	<u>5</u>	<u>H</u>						

Hydrophytic Vegetation? yes 212 = 180 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: Unmowed hillside to S: DAGL, RULA, RUDI, scattered
PISI - see sample pt 61

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	<u>0-8 in.</u>	<u>10 YR 2/2</u>	<u>many 7.5 YR 3/4 mottles sat. loam</u>
	<u>8-14 in.</u>	<u>10 YR 2/1</u>	<u>common 7.5 YR 4/4-6 mottles sat. silt loam</u>
	<u>14-18+ in.</u>	<u>10 YR 2/1</u>	<u>many " and N 3/0 mottles</u>
	<u>in.</u>		
	<u>in.</u>		

Other Indicators: None Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: mapped as Hironia; appears to be Hebo silty clay loam Hydric Soils List? yes
 Drainage Class: poorly drained Criteria Depth: in.
 Hydric Soil? yes Rationale: level position in landscape suggests Hebo inclusion
 Comments:

HYDROLOGY

Landform/Topography: bottomland Wetland Drainage Pattern: floodplain
 Inundation and Depth: in. Water Table & Depth: 6 in.
 Hydrology Alteration: possible; one small part of stream channel appears to be dug out.
 Other Indicators: None X Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: yes Days in growing season Depth of Major Portion of Root Zone: in.
 Wetland Hydrology? yes Rationale: standing water @ 6"; inundation near sample point
 Comments:

SUMMARY

Wetland? yes Rationale: all three criteria show sufficient
 Comments: positive indicators

Date(s): 2/20/96 Field Investigator(s): LW, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☐ No ☒

W22) % Cowardin classes present: POW ☐ PEM 100 PSS ☐ PFO ☐ Other ☐

W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐

F30) Stream channel: Natural ☐ Partly modified ☒ Extensive modifications ☐

F31) Stream channel % shaded: 0% *appears to have been partly dug out*

H36) Evidence of flooding? Yes ☒ No ☐ Describe sediment deposits

H37) Outflow restricted? Yes ☐ No ☒

H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐

P42) Hazards to public? No ☒ Yes ☐ Describe ☐

P44) Access exist/feasible: Non-ADA ☐ ADA ☐ Obs. only ☐ Barriers: unmowed by

R49) Trails/view areas? Existing ☐ Potential ☐ No existing or potential ☒ private prop.

A52) Rural area visual contrast: Significant ☐ Limited ☒ Little/none ☐

A53) Urban landscape: Open/natural ☐ Groomed ☐ None ☐

A54) Visual detractors? Yes ☒ No ☐ A55) Easily removed? Yes ☒ No ☐
Some dumped construction rubble + trash to E

From primary viewing area:

A56) Odors: Natural ☐ Unnatural, occasional ☒ *cows* Unnatural, continuous ☐

A57) Noise: Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐

A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐

A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

MCC 5

T. 1 S, R. 10W, NW 1/4 of Sec. 02 (8D) Tillamook County Tax Lot: 201 Site No.: 61 (UPL)
 Drainage Basin & Plot Location: McCoy Creek; about 50' S of sample pt. 60, 15' upslope of wet edge
 Normal Circumstances? Y Atypical Situation? N Problem Area? N Sample Point: 61
 Land Use & Condition: vacant meadow

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>DAGL</u>	<u>FACU</u>	<u>60</u>	<u>H</u>	<u>X</u>					
<u>AGTE</u>	<u>FAC</u>	<u>40</u>	<u>H</u>	<u>X</u>					
<u>RULA</u>	<u>FACU+</u>	<u>5</u>	<u>S</u>						
<u>Crataegus sp.</u>	<u>unknown</u>	<u>5</u>	<u>S</u>						
<u>RARE</u>	<u>FACW</u>	<u><1</u>	<u>H</u>						

Hydrophytic Vegetation? NO 1/2 = 50 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: 2/3 of non-FAC spp. are FACU or drier

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	<u>0-15</u> in.	<u>10YR 2/1</u>	<u>moist silt loam, no mottles</u>
	<u>>15</u> in.	<u>10YR 2/1-0</u>	<u>" " " " "</u>
	in.		
	in.		
	in.		

Other Indicators:

☒ None☐ Gleyed matrix☐ Histosol/Histic epipedon☐ Concretions☐ Sulfidic odor☐ Sandy w/high organic content

Series/Phase:

Winema silt loamHydric Soils List? NO

Drainage Class:

well-drained

Criteria Depth: _____ in.

Hydric Soil?

noRationale: lacks sufficient positive indicators

Comments:

It has been very wet and is pouring now, but soil is only moist - not saturated.

HYDROLOGY

Landform/Topography: footslope, ~20% slope Wetland Drainage Pattern: _____
 Inundation and Depth: _____ in. Water Table & Depth: _____ in.
 Hydrology Alteration: none
 Other Indicators: ☒ None ☐ Sediment deposits ☐ Water-stained leaves
☐ Drift lines ☐ Water marks ☐ Live oxidized rhizospheres

Saturation Criteria:

Days in growing season

Depth of Major Portion of Root Zone: _____ in.

Wetland Hydrology?

noRationale: lacks sufficient positive indicators

Comments:

SUMMARY

Wetland?

noRationale: lacks sufficient positive indicators

Comments:

Date(s): 2/20/96Field Investigator(s): LW, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No _____
- W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
- W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
- F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
- F31) Stream channel % shaded: _____
- H36) Evidence of flooding? Yes _____ No _____ Describe _____
- H37) Outflow restricted? Yes _____ No _____
- H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
- P42) Hazards to public? No _____ Yes _____ Describe _____
- P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
- R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
- A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
- A53) Urban landscape: Open/natural _____ Groomed _____ None _____
- A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
- A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
- A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
- A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 S, R. 10W, NW 1/4 of Sec. 02 (8D) Tillamook County Tax Lot: 900 Site No.: 62 (PEHC)
 Drainage Basin & Plot Location: ~(?) 50' W of Bewley's Rd, ~ 200' south of Dougherty Rd.
 Normal Circumstances? Y Atypical Situation? Problem Area? Sample Point: 62
 Land Use & Condition: mowed meadow

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
<u>AGTE</u>	<u>FAC</u>	<u>60</u>	<u>H</u>	<u>X</u>	<u>FEAR</u>	<u>FAC-</u>	<u>5</u>	<u>H</u>	
<u>HOLA</u>	<u>FAC</u>	<u>20</u>	<u>H</u>	<u>X</u>	<u>PLLA</u>	<u>FAC</u>	<u><1</u>	<u>H</u>	
<u>JUPA</u>	<u>FACU</u>	<u>10</u>	<u>H</u>		<u>Trifolium sp.</u>		<u><1</u>	<u>H</u>	
<u>DAGL</u>	<u>FACU</u>	<u>5</u>	<u>H</u>						
<u>RARE</u>	<u>FACW</u>	<u>5</u>	<u>H</u>						

Hydrophytic Vegetation? yes 212 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: FAC - dominated; subdominants evenly split between wetter + drier species; marginal situation

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	<u>0-9 in.</u>	<u>10YR 2/1</u>	<u>very moist, no mottles</u>
	<u>9+ in.</u>	<u>10YR 7/4 and 7.5YR 5/6</u>	<u>mixed unconsolidated parent mat.; saturated</u>
	<u>in.</u>		
	<u>in.</u>		
	<u>in.</u>		

Other Indicators:

☒ None ☐ Gleyed matrix ☐ Histosol/Histic epipedon
☐ Concretions ☐ Sulfidic odor ☐ Sandy w/high organic content

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

Winema silt loamHydric Soils List? noCriteria Depth: in.well drainedpossible Rationale:shows low chroma matrix, but no mottles; parent material is shallow + probably perches water table.

HYDROLOGY

Landform/Topography:

Inundation and Depth:

Hydrology Alteration:

Other Indicators:

backslope

Wetland Drainage Pattern:

Water Table & Depth: 9" in.none in.none

☒ None ☐ Sediment deposits ☐ Water-stained leaves
☐ Drift lines ☐ Water marks ☐ Live oxidized rhizospheres

Saturation Criteria:

Wetland Hydrology?

Comments:

Days in growing season

Depth of Major Portion of Root Zone: in.yes Rationale: sufficient positive indicatorsWetland hydrology appears to come from seepage and subsurf. flow above the impermeable UPM layer at 9"

SUMMARY

Wetland?

Comments:

possible Rationale: Vegetation + soils are marginal, but landscape position suggests seepage + seasonally wet conditions

Date(s): 2/20/96Field Investigator(s): LW, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

W16) Soil tillage/compaction? Yes ☐ No ☒

W22) % Cowardin classes present: POW ☐ PEM ☒ PSS ☐ PFO ☐ Other ☐

W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐

F30) Stream channel: *n/a* Natural ☐ Partly modified ☐ Extensive modifications ☐

F31) Stream channel % shaded: ☐

H36) Evidence of flooding? Yes ☐ No ☒ Describe ☐

H37) Outflow restricted? Yes ☐ No ☒

H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐

P42) Hazards to public? No ☒ Yes ☐ Describe ☐

P44) Access exist/feasible: Non-ADA ☐ ADA ☒ Obs. only ☐ Barriers: ☐

R49) Trails/view areas? *Bowley's Rd* Existing ☒ Potential ☐ No existing or potential ☐

A52) Rural area visual contrast: Significant ☐ Limited ☒ Little/none ☐

A53) Urban landscape: Open/natural ☐ Groomed ☐ None ☐

A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

A56) Odors: Natural ☐ Unnatural, occasional ☒ Unnatural, continuous ☐

A57) Noise: *traffic* Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐

A58) View: Whole/most of wetland ☐ Small portion ☒ Describe *can't see wettest area to the west - trees between.*

A59) No. of Cowardin classes visible: 2 or more ☐ 1 ☒

RECEIVED

DATE: 1/1/81

BY: [illegible]

FOR: [illegible]

1/1/81

BY: [illegible]

DATE: 1/1/81

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 , R. 10W, 1/4 of Sec. Tillamook County Tax Lot: Site No.: 63 ^{DOU1} ORS Doughty
 Drainage Basin & Plot Location: Doughty Crk. E end of UGB
 Normal Circumstances? Y Atypical Situation? N Problem Area? N Sample Point: 63 ^{Channel}
 Land Use & Condition: Vacant, adjacent to rural dwellings ^{UPL}

VEGETATION

Species Banks:	Indicator Status	% Cover	Layer	Domin.	Species	Indicator Status	% Cover	Layer	Domin.
RUDI	FACU		S	X					
ALRU	FAC		T	X					
PISI	FAC		T						
SARA	FACU		S						

Hydrophytic Vegetation? NO $1/2 = 50\%$ of domin. species are OBL, FACW, FAC+ and/or FAC

Comments: Floodplain: where channel widens, veg. dominated by
SCMI, LYAM = hydrophytic. Width of flat
area visible from Doughty Rd is ~25-30'.

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	in.		
	in.		
	in.		
	in.		
	in.		

Hydric soils assumed for creek
channel due to inundation; also for
broader flat areas of floodplain due to
landscape position

Other Indicators: None Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: mapped: Winema silt loam - Hydric Soils List? no

Drainage Class: Criteria Depth: in.

Hydric Soil? no, but see comment Rationale:

Comments: hydric conditions assumed for creek channel +
areas of broad flat floodplain only

HYDROLOGY

Landform/Topography: Deeply incised creek bed (~15' deep) Wetland Drainage Pattern: creek

Inundation and Depth: 12-18" in. Water Table & Depth: in.

Hydrology Alteration: none

Other Indicators: None Sediment deposits Water-stained leaves
Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: Days in growing season Depth of Major Portion of Root Zone: in.

Wetland Hydrology? only in channel Rationale:

Comments: Wetland conditions present in creek bed + along bank where
floodplain broadens.

SUMMARY

Wetland? no; see comments Rationale:

Comments: Wetland conditions exist only in creek bed and
on flat areas of floodplain. Steep banks are upland.

Date(s): 2/20/96 Field Investigator(s): LW LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No _____
W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
F31) Stream channel % shaded: _____
H36) Evidence of flooding? Yes _____ No _____ Describe _____
H37) Outflow restricted? Yes _____ No _____
H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
P42) Hazards to public? No _____ Yes _____ Describe _____
P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
A53) Urban landscape: Open/natural _____ Groomed _____ None _____
A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

BAY CITY, OREGON WETLAND INVENTORY

DOU1
SITE DATA SHEET OBS

T. 1 , R. 10W, 1/4 of Sec. Tillamook County Tax Lot: Site No.: 64 (PEMC, PSSC)
 Drainage Basin & Plot Location: W branch of tributary to Dougherty Crk; S of house W of
 Normal Circumstances? Y Atypical Situation? N Problem Area? N Sample Point: 64 SP 58-1
 Land Use & Condition: vacant; low flat area is alluvial terrace; hillslope to W is probably grazed. SP 58-2

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
PEMC area	Status	Cover			PSSC area	Status	Cover		
JUEF	FACW		H	X	RUSP	FAC+		S	X
JUPA	FACW			X	Salix sp.	FACW(ext)		S	X
HOLA	FAC			X	SARA (scattered)	FACU		S	
AGTE	FAC			X	PISI (scattered)	FAC		T	
ALGE	OBL		V	X					

Hydrophytic Vegetation?

Comments:

PEMC 5/5
PSSC 2/2 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
hillslope to W appears to be dominated by AGTE
and JUEF in PW area outlined on map.
appears to be seep area similar to S.P. 62; feeds W branch of tributary.

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	in.		
	in.		
	in.		
	in.		
	in.		

Other Indicators:

 None
 Concretions

 Gleyed matrix
 Sulfidic odor

 Histosol/Histic epipedon
 Sandy w/high organic content

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

Hcto silty clay loam
poorly drained
yes Rationale: mapped Hcto area closely matches distribution of hydrophytic plants
 Hydric Soils List: yes
 Criteria Depth: in.

HYDROLOGY

Landform/Topography: alluvial terrace Wetland Drainage Pattern:
 Inundation and Depth: in. Water Table & Depth: in.
 Hydrology Alteration: none apparent
 Other Indicators: None Sediment deposits Water-stained leaves
 Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria:

Wetland Hydrology?

Comments:

probable Days in growing season Depth of Major Portion of Root Zone: in.
 Rationale: not sampled; hydric soil + veg. suggest w/h hydric

SUMMARY

Wetland?

Comments:

probable Rationale: veg. + mapped soils meet criteria
hydrology would need to be sampled
during growing season

Date(s): 2/20/96Field Investigator(s): LW, LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☒ (partial) No ☐ *grazed on hillside to W*
- W22) % Cowardin classes present: POW ☐ PEM 80 PSS 20 PFO ☐ Other ☐
- W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐
- F30) Stream channel: Natural ☒ Partly modified ☐ Extensive modifications ☐
- F31) Stream channel % shaded: 75
- H36) Evidence of flooding? Yes ☐ No ☒ Describe ☐
- H37) Outflow restricted? Yes ☐ No ☒
- H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
- P42) Hazards to public? No ☒ Yes ☐ Describe ☐
- P44) Access exist/feasible: Non-ADA ☒ ADA ☐ Obs. only ☐ Barriers: private property
- R49) Trails/view areas? *can view from Douglas Road* Existing ☒ Potential ☒ No existing or potential ☐
- A52) Rural area visual contrast: Significant ☒ Limited ☐ Little/none ☐
- A53) Urban landscape: Open/natural ☐ Groomed ☐ None ☐
- A54) Visual detractors? Yes ☐ No ☒ A55) Easily removed? Yes ☐ No ☐

From primary viewing area:

- A56) Odors: Natural ☒ Unnatural, occasional ☐ Unnatural, continuous ☐
- A57) Noise: *traffic* Natural ☐ Light+natural ☒ Heavy+natural ☐ Heavy intrusive ☐
- A58) View: Whole/most of wetland ☒ Small portion ☐ Describe ☐
- A59) No. of Cowardin classes visible: 2 or more ☒ 1 ☐

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 , R. 10W, 1/4 of Sec. Tillamook County Tax Lot: Site No.: 65 (PESC, PSSR)
 Drainage Basin & Plot Location: filled site N of sewage lagoons
 Normal Circumstances? N Atypical Situation? Y Problem Area? N Sample Point: 65
 Land Use & Condition: vacant; filled at various times in the past

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
	Status	Cover				Status	Cover		
PSSC area N of fill:					PESC edges of fill to N, S, W				
CAOB	OBL		H	X	Juncus sp.	FACW (est.)		H	X
Salix spp.	FACW (est.)		S	X	SPDO	FACW		S	X
					CAOB	OBL		H	X
					PHAR	FACW		H	X
					PISI	FAC		T	

Hydrophytic Vegetation?
 Comments:

PSSC 2/2
 PESC 4/4 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
filled area is now upland but wetland persists at edges and to the north.

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	in.		
	in.		
	in.		<u>not investigated - most of area is filled</u>
	in.		
	in.		

Other Indicators:

None ☐ Gleyed matrix ☐ Histosol/Histic epipedon
 Concretions ☐ Sulfidic odor ☐ Sandy w/high organic content ☐

Series/Phase:

Drainage Class:

Hydric Soil?

Comments:

Hebo silty clay loam / Coquille silt loam Hydric Soils List: yes
 Criteria Depth: in.

Rationale: mapped unit is hydric

HYDROLOGY

Landform/Topography:

Inundation and Depth:

Hydrology Alteration:

Other Indicators:

bottomland Wetland Drainage Pattern:
at edges 2-3" in. Water Table & Depth: in.
central area near RR tracks is filled
 None ☐ Sediment deposits ☐ Water-stained leaves ☐
 Drift lines ☐ Water marks ☐ Live oxidized rhizospheres ☐

Saturation Criteria:

Wetland Hydrology?

Comments:

probable Days in growing season Depth of Major Portion of Root Zone: in.
 Rationale: (except where filled)

SUMMARY

Wetland?

Comments:

probable Rationale: veg., mapped soil show positive indicators
There is US Army Corps flagging in the wetland

Date(s): 2/20/96Field Investigator(s): LW LB

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes ☒ No ☐
W22) % Cowardin classes present: POW ☐ PEM 25 PSS 75 PFO ☐ Other ☐
W26) Urban veg. buffer (unmowed): >50 ft. ☒ 25-50 ft. ☐ <25 ft. ☐
F30) Stream channel: n/a Natural ☐ Partly modified ☐ Extensive modifications ☐
F31) Stream channel % shaded: n/a
H36) Evidence of flooding? Yes ☒ No ☐ Describe inundation
H37) Outflow restricted? Yes ☐ No ☒
H38) Inflow restricted? No ☒ Yes, can be remedied ☐ Yes, cannot be remedied ☐
P42) Hazards to public? No ☒ Yes ☐ Describe ☐
P44) Access exist/feasible: Non-ADA ☒ ADA ☒ Obs. only ☐ Barriers: ☐
R49) Trails/view areas? Existing ☐ Potential ☒ No existing or potential ☐
A52) Rural area visual contrast: Significant ☐ Limited ☒ Little/none ☐
A53) Urban landscape: Open/natural ☐ Groomed ☐ None ☐
A54) Visual detractors? Yes ☒ No ☐ A55) Easily removed? Yes ☐ No ☒
partially filled

From primary viewing area:

- A56) Odors: Natural ☐ Unnatural, occasional ☒ Unnatural, continuous ☐
A57) Noise: Hwy 101 Natural ☐ Light+natural ☐ Heavy+natural ☒ Heavy intrusive ☐
A58) View: Whole/most of wetland ☐ Small portion ☒ Describe ☐
A59) No. of Cowardin classes visible: 2 or more ☒ 1 ☐

BAY CITY, OREGON WETLAND INVENTORY

SITE DATA SHEET

T. 1 __, R. 10W, __ 1/4 of Sec. __ Tillamook County Tax Lot: __ Site No.: 66 (MCC1 UPL, OBS)
 Drainage Basin & Plot Location: 16th St - ROW, below Williams + McCoy
 Normal Circumstances? Y Atypical Situation? N Problem Area? N Sample Point: 66
 Land Use & Condition: Wetland

VEGETATION

Species	Indicator	%	Layer	Domin.	Species	Indicator	%	Layer	Domin.
RUSP	Status	Cover			Hedera helix	Status	Cover		
	FAC+	80+	S	X		NL	<1	H	
SART	FACU	<5	S		MADI	FAC	<1	H	
VAPA	NL	<1	S						
Ilex sp.	NL	<1	S						
POMU	FACU	<1	H						

Hydrophytic Vegetation? 111 = 100 % of domin. species are OBL, FACW, FAC+ and/or FAC
 Comments: Very dense RUSP patch - logged years ago (scattered stumps) - subdominants tend towards upland

SOIL

Horizon	Depth	Matrix Color	Mottle Contrast & Color, Texture, Moisture, Other Characteristics
	in.		
	in.		
	in.		<u>not investigated - OBS only</u>
	in.		
	in.		

Other Indicators: None Gleyed matrix Histosol/Histic epipedon
Concretions Sulfidic odor Sandy w/high organic content

Series/Phase: Winema silt loam Hydric Soils List? no
 Drainage Class: well drained Criteria Depth: in.
 Hydric Soil? no Rationale: no indication of hydric inclusions; midslope position suggests such inclusions unlikely; no evidence of seepage
 Comments: no indication of hydric inclusions; midslope position suggests such inclusions unlikely; no evidence of seepage

HYDROLOGY

Landform/Topography: midslope Wetland Drainage Pattern:
 Inundation and Depth: none in. Water Table & Depth: in.
 Hydrology Alteration: none
 Other Indicators: X None Sediment deposits Water-stained leaves
 Drift lines Water marks Live oxidized rhizospheres

Saturation Criteria: Days in growing season Depth of Major Portion of Root Zone: in.
 Wetland Hydrology? no Rationale:
 Comments: Strong subsurface flow as indicated by piping and intermittently exposed subterranean stream to NW. No standing water; some surface flow - recent heavy rain.

SUMMARY

Wetland? no Rationale: lacks sufficient positive indicators
 Comments:

Date(s): 2/20/96 Field Investigator(s): LW LP

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY NOTES:

W: Wetland character F: Fish habitat H: Hydrology P: Public Access R: Recreation A: Aesthetics

- W16) Soil tillage/compaction? Yes _____ No _____
- W22) % Cowardin classes present: POW _____ PEM _____ PSS _____ PFO _____ Other _____
- W26) Urban veg. buffer (unmowed): >50 ft. _____ 25-50 ft. _____ <25 ft. _____
- F30) Stream channel: Natural _____ Partly modified _____ Extensive modifications _____
- F31) Stream channel % shaded: _____
- H36) Evidence of flooding? Yes _____ No _____ Describe _____
- H37) Outflow restricted? Yes _____ No _____
- H38) Inflow restricted? No _____ Yes, can be remedied _____ Yes, cannot be remedied _____
- P42) Hazards to public? No _____ Yes _____ Describe _____
- P44) Access exist/feasible: Non-ADA _____ ADA _____ Obs. only _____ Barriers: _____
- R49) Trails/view areas? Existing _____ Potential _____ No existing or potential _____
- A52) Rural area visual contrast: Significant _____ Limited _____ Little/none _____
- A53) Urban landscape: Open/natural _____ Groomed _____ None _____
- A54) Visual detractors? Yes _____ No _____ A55) Easily removed? Yes _____ No _____

From primary viewing area:

- A56) Odors: Natural _____ Unnatural, occasional _____ Unnatural, continuous _____
- A57) Noise: Natural _____ Light+natural _____ Heavy+natural _____ Heavy intrusive _____
- A58) View: Whole/most of wetland _____ Small portion _____ Describe _____
- A59) No. of Cowardin classes visible: 2 or more _____ 1 _____

APPENDIX 5. MAPS

APPENDIX 6: OFWAM RESULTS

Bay city Wetland Units (13)

OFWATM

DOU 1	✓
DOU 2	✓
JAC 1	✓
creek channel (Jacoby)	
LAR 1	✓
MCC 1	✓
MCC 2	✓
MCC 3	✓
MCC 4	✓
MCC 5	✓
PAT 1	✓
PAT 2	✓
PAT 3	✓
PAT 4	✓
Patterson Creek Channel	

WATERSHED SUMMARY SHEET FOR THE OREGON METHOD

Watershed or community identification: Bay City Urban Growth Boundary (North Coast drainage basin)

Physical characteristics of the watershed:

The assessment area is bounded by the Urban Growth Boundary of the City of Bay City. It is located in the foothills of the Coast Range. It covers an area of 5.5 square miles, with an average slope of 23 percent. It extends from the mouth of Larson Creek on the north, to Doughty Creek on the south, with Tillamook Bay forming the western boundary. The two major streams within the assessment area are Patterson Creek and Jacoby Creek. There has been some channelization in small tributary streams and Doughty Creek, but Patterson, Jacoby, and Larson Creeks are relatively unmodified. No water is being taken out of the streams in the watershed upstream of the assessment area.

Land uses within the watershed:

The dominant land use in the watershed upstream from the assessment area is Exclusive Forest Use lands. Upstream from Tillamook Bay, the dominant use is agriculture.

Water quality:

No streams or portions of streams within the study area are listed by DEQ Report 305(b) as *water quality limited*; however, Tillamook Bay is listed. In the Oregon Statewide Assessment of Nonpoint Sources of Water Pollution, all upstream reaches are listed as *no problem* (or no data available) except for Tillamook Bay, which is listed in *severe* water quality condition.

Biological characteristics of the watershed:

The fisheries include cold water and anadromous fish. Some of these include chum salmon (wild), Coho salmon (hatchery), Chinook salmon, steelhead, and cutthroat trout (wild resident and sea-run). Chum, Coho, and steelhead are all listed as state sensitive species, and Coho is proposed for federal listing. Larson, Patterson, and Jacoby Creeks have intact fisheries; Doughty Creek has salmon in the lower reaches and trout in the upper reaches, but a golf course limits fish passage between the two stream segments.

Wildlife species include migratory birds, big game and nesting birds. Big game include elk, deer, and bear. Fur-bearers include otter, beaver, racoon, bobcat, and cougar. Coyote is also present. There is a great blue heron rookery on Goose Point (near MCC3), and another south of the assessment area in the Kilchis Point vicinity. Sensitive species observed in the assessment area include bald eagle and white-footed vole. Red-legged frog has been found north of the assessment area. There is a relatively intact north-south wildlife corridor east of the developed part of Bay City, with forests to the north, and forests and pasture lands to the south. East-west wildlife passage is blocked by city development, Highway 101, and the railroad track.

NARRATIVE SUMMARY OF WATERSHED DESCRIPTION

Most wetlands within the Bay City Urban Growth Boundary are connected to streams and other wetlands, providing a series of interconnected water systems that provide much more complex and active functions than isolated wetlands can. In addition, the water quality in the streams and wetlands is extremely good because the watershed is relatively undeveloped, especially in the upper reaches. The same watershed characteristics, coupled with the limited amounts of development close to town, also contribute to the extensive wildlife and fish populations and native plants communities in the area. The complex of wetlands associated ^{with} Jacoby Creek at the east end of the assessment area are particularly important to the thriving elk population there.

Land use practices within the watershed can have significant impacts on wetlands if hydrology is impaired and/or if pollutants and sedimentation are increased. Some types of logging or development operations can have these kinds of impacts. Degradation or loss of wetlands may result in reduction of many interrelated parts of the system, such as wildlife, fish, water quality, and flood control.

Management practices within the Bay City UGB may help to preserve or enhance functions provided by the wetland systems in the city. Maintaining hydrologic connections, and if possible, vegetation corridors, will enhance wildlife and fish habitat. Maintaining vegetation buffers, both upland and wetland, will help maintain water filtering and flood control functions of wetlands as well as helping to maintain diversity of plant and animal life.

Because wetlands contribute such a broad variety of functions for humans, fish, and wildlife, their value per acre is very high. Many of the wetlands in Bay City are large, and relatively intact, making them extremely valuable resources for education and recreation. This is especially important along the Oregon Coast, where local residents and visiting tourists alike treasure the natural resources of the area. Two wetlands on Goose Point, DOU2 and MCC4, are of particular significance because they are the last remnants of native tidal wet prairie on Tillamook Bay. They have especially high potential for educational and recreational purposes, because they have diverse wildlife and fish habitat, they have interesting hydrologic functions operating, and they are aesthetically very pleasing.

Bay City UGB

Function & condition summary sheet for the Oregon Method

Wetland identification: LAR 1

Function	Evaluation Descriptor	Rationale
Wildlife habitat	provides diverse habitat	(+): Forested wetlands at mouth of Larson Creek where it flows into Larson Cove; clean water; currently undeveloped. (-): extensive logging upstream; recent clearing of steep S side.
Fish habitat	fish habitat intact	(+) Adjacent to Larson Ck - in natural channel with shoaling in stream structures, good water quality, and fish in stream. Upstream forested adjacent.
Water quality	function intact	(+) Forested wetlands along creek experience flooding and ponding - good for sediment trapping & collection uptake. Open space to N, but development now occurring to S and upstream (E).
Hydrologic control	function limited	Although it has forested wetlands adjacent to a stream and can hold flood waters, but location limits its control function; it empties into restriction into open space (Larson Cove) & has open space & EFW lands upstream.
Sensitivity to future impacts	potentially sensitive	No DEQ water qual. but there is logging and an old landfill higher in watershed. Is currently open space but zoned for development which has begun on S side.
Enhancement potential	little enhancement potential	already provides diverse wildlife habitat.
Education	potential	(+) Has good wildlife & fish ht and potential access from old logging Rd. (-): there is no public access; it's tough walking with no trails in wetland vicinity.
Recreation	potential	Access w/ owner permission; unmaintained logging roads nearby (E) & over-park (S). Diverse wildlife habitat. (-): No fishing; no hunting inside city limits.
Aesthetic quality	moderately pleasing	Forested wetland w/ creek running through, natural open area, but forest setting limits visual distance. Traffic from 101 audible at W end.
Narrative description of overall wetland functions and conditions		

Bay City USB

Function & condition summary sheet for the Oregon Method

Wetland identification: MCC 1

Function	Evaluation Descriptor	Rationale
Wildlife habitat	provides habitat for some wildlife species	(+) PSS & PEW wetlands, low interspersed; east area on small creek; west area adj. to Till. Bay. (-): commercial development area
Fish habitat	impacted or degraded	(+) small cke has some shading, but few instream structures; there are culverts both above and below E wetland, and some grazing upstream. Area surrounded by development; no info on fish population
Water quality	function intact	(+) Small scrub shrub wetlands assoc. w/ small stream in the middle of extensively developed area. Can help filter sediments & uptake pollutants.
Hydrologic control	function intact	(+) W. end in the 100 floodplain; evidence of flooding or ponding with predominantly wood vegetation. Can slow runoff protecting downstream & adjacent development sites.
Sensitivity to future impacts	potentially sensitive	significant channel modification above & below on McCoy Ck; no DEQ water quality data, but reaches above are grazed; surrounded by development
Enhancement potential	high potential	Potential for improving wildlife & fish habitat especially if work includes additional stream reaches as well as wetland-assoc. reaches.
Education	potential, especially W site.	(+) Has some wildlife habitat & W. end is adjacent to Tillamook Bay. (-): there's no barrier along the Bay; no access without permission.
Recreation	potential	(+) Existing unmaintained trail in E site; access to (and from?) Till. Bay on both sites; some wildlife ht; fishing in Till. Bay. (-): no public access without permission; no hunting in city limits.
Aesthetic quality	moderately pleasing	These two sites of PSS wetland and pleasant natural area in a developed area. Woody veg. limits visual distance; some traffic noise.
Narrative description of overall wetland functions and conditions		

Bay City USB

Function & condition summary sheet for the Oregon Method

Wetland identification: MCC 2

Function	Evaluation Descriptor	Rationale
Wildlife habitat	provides habitat for some wildlife species	PEM-dominant swale w/low interference; connected to Tillamook Bay; there are 25+ veg. buffers on most edges. (-) water pollution from Till. Bay, # possibly from sewage lagoons.
Fish habitat	degraded or impacted. (+)	Constructive swale, but w/ connection to Till Bay, so may provide some refuge areas, and some shade. (-) Till. Bay has severe water qual. conditions between sewage lagoons and RR track.
Water quality	function intact. (+)	Swale has veg. buffers adjacent to sewage lagoons, Till. Bay, & RR ROW. Good potential for pollutant uptake & filtering of run-off.
Hydrologic control	lost or not present (-)	It is very small area with short undisturbed outlet to Bay; provides little flood storage or sediment holding capacity; only open space (Till. Bay) downstream.
Sensitivity to future impacts	potentially sensitive	Man-made swale & channel open to Tillamook Bay which has severe water qual. for NPS pollutants; In developed area adjacent to sewage lagoons.
Enhancement potential	moderate potential	water is available, but of low quality (Tillamook Bay). Adjacent structures (sewage lagoons; RR ROW) may limit potential.
Education	not appropriate	Part of sewage lagoon complex; no access allowed.
Recreation	not appropriate	No access — part of sewage lagoons complex.
Aesthetic quality	not pleasing (-)	long, narrow shape with sewage lagoons along W side & RR ROW & Highway 101 along E side; unpleasant colors; heavy traffic noise
Narrative description of overall wetland functions and conditions		

Bay City UGB

Answer sheets & summary sheets

Wetland Assessment Questions: Answer Sheet				
Wetland identifier	LAR 1	MCC 1	MCC 2	
Wildlife habitat				
Question 1	b	a	a	
Question 2	a	a	c	
Question 3	c	c	c	
Question 4	b	c	c	
Question 5	a	a	a	
Question 6	a	a	a	
Question 7	a	c	c	
Question 8	a	c	c	
Question 9	a	a	a	
Assessment descriptor	provides diverse habitat	provides habitat for some species	provides habitat for some species	
Fish habitat				
Streams and rivers				
Question 1	a	b	/	
Question 2	a	b		
Question 3	b	c		
Question 4	a	a		
Question 5	a	c		
Question 6	a	b		
Lakes and ponds				
Question 1	/	/	Tillamook Bay	
Question 2			a	
Question 3			c	
Question 4			c	
Question 5			c	
Question 6			a	
Assessment descriptor	fish hit intact	fish habitat is degraded or impacted	fish habitat is impacted or degraded	
Water quality				
Question 1	a	a	a	
Question 2	a	a	a	
Question 3	a	a	a	
Question 4	b	b	b	
Question 5	c → a	a	a	
Question 6	b - logging	b - grazing	a - Tillamook	
Assessment descriptor	function intact	function intact	function intact	

Wetland Assessment Questions: Answer Sheet

Wetland identifier	LAR 1	MCC 1	MCC 2	
Hydrologic control				
Question 1	b	a	a	
Question 2	a	a	a	
Question 3	b	b	b	
Question 4	c	b	c	
Question 5	a	a	c	
Question 6	c	a	c	
Question 7	c	c	c	
Assessment descriptor	function limited	function intact	lost, or not present	
Sensitivity to future impacts				
Question 1	b	a	b	
Question 2	b	b	b	
Question 3	no data b - logging & cons. site	no data b - grazing	d Till Bay	
Question 4	c	a	a	
Question 5	a	a	a	
Question 6	a	a	c	
Assessment descriptor	potentially sensitive	potentially sensitive	potentially sensitive	
Enhancement potential				
Question 1	N/A	a	b	
Question 2		a	a	
Question 3		a	a	
Question 4		b	b	
Question 5		a	a	
Question 6		b	b	
Assessment descriptor		high potential	moderate potential	
Education				
Question 1	b	b	c	
Question 2	b	b	c	
Question 3	a	b	b	
Question 4	a	a	c	
Question 5	b	b	c	
Question 6	b	b	b	
Assessment descriptor	potential	potential	not appropriate	

Bay City USB

Wetland Assessment Questions: Answer Sheet				
Wetland identifier	LAR 1	MCC 1	MCC 2	
Recreation				
Question 1	b	b	c	
Question 2	c	b	c	
Question 3	b	b	c	
Question 4	a	b	b	
Question 5	b	a	b	
Question 6	b	b	b	
Assessment descriptor	potential	potential	not appropriate	
Aesthetic quality				
Question 1	b	c	b	
Question 2	c	b	b	
Question 3	a	b	c	
Question 4	a	a	a	
Question 5	a	a	b	
Question 6	a	a	c	
Assessment descriptor	moderately pleasing	moderately pleasing	not pleasing	

LAR1

Forest wetland adjacent to Larson Creek where it empties into Larson Cove. Provides diverse wildlife habitat, and fish habitat is intact. Water quality function limited because there are no adjacent or downstream developed areas that would benefit from wetlands filtering runoff or uptaking pollutants. DEQ has no data on water quality, but there has been extensive logging upstream, and there is an old land fill near the stream higher in the watershed. Potentially sensitive to future impacts; and the steep south side is currently being cleared for development. Little enhancement potential; already provides diverse wildlife habitat. There is some educational and recreational potential, but access is limited, primitive, and requires owner permission. Moderately pleasing aesthetically.

MCC1

Two scrub-shrub wetlands associated with a small unnamed creek we named McCoy Creek for purposes of this study. E site at junction of McCoy and Warren Streets; W site adjacent to Tillamook Bay and N of sewage lagoons. Provide habitat for some wildlife species, but fish habitat is degraded. Water quality and hydrologic control functions are intact, providing filtering of nutrients and flood storage for surrounding developed areas. High enhancement potential: W site has been partially filled; there is grazing and stream channel modifications upstream from both sites. Some education and recreation potential. Moderately pleasing aesthetically because of natural character in a developed area.

MCC2

A long, narrow emergent/scrub-shrub wetland sandwiched between sewage lagoons on the west and the railroad right-of-way and Highway 101 on the east, with an open outlet to Tillamook Bay. It does provide habitat for some wildlife species, but fish habitat is impacted. Water quality function is intact because it can filter runoff from surroundings before it enters the channel feeding into the Bay. Provides little hydrologic control; most waters come from the Bay, and the swale is narrow and confined. Potentially sensitive to future impacts because it already has a source of severe water quality conditions from the Bay. Education and recreation are not appropriate; no public access allowed. Not pleasing aesthetically because of setting.

Bay City UGB

Answer sheets & summary sheets

Wetland Assessment Questions: Answer Sheet				
Wetland identifier	MCC 3	MCC 4	MCC 5	
Wildlife habitat				
Question 1	b	b	b	
Question 2	c	c	c	
Question 3	c	c	c	
Question 4	c	a adj. to Till Bay	c	
Question 5	a	a	a	
Question 6	a	a	a	
Question 7	a	a - Till Bay	a	
Question 8	c	c	b	
Question 9	a	a	a	
Assessment descriptor	provides habitat for some species	provides habitat for some species	provides habitat for some species	
Fish habitat				
Streams and rivers	NA			
Question 1		c	c	
Question 2		a	a	
Question 3		c	c	
Question 4		c	a	
Question 5		c	b	
Question 6		a	c?	
Lakes and ponds				
Question 1				
Question 2				
Question 3				
Question 4				
Question 5				
Question 6				
Assessment descriptor	not present	impacted or degraded	impacted or degraded	
Water quality				
Question 1	b	a	a	
Question 2	a	a	a	
Question 3	a	a	a	
Question 4	b	a	b	
Question 5	a	a	b	
Question 6	a	a	c	
Assessment descriptor	function intact	function intact	function impacted or degraded	

Wetland Assessment Questions: Answer Sheet

Wetland identifier	MCC3	MCC4	MCC5	
Hydrologic control				
Question 1	a	a	b	
Question 2	a	a	b	
Question 3	b	a	b	
Question 4	b	c	b	
Question 5	c	c	c	
Question 6	c	c	b	
Question 7	c	b	c	
Assessment descriptor	impacted or degraded	impacted or degraded	impacted or degraded	
Sensitivity to future impacts				
Question 1	a	a	a	
Question 2	b	b	b	
Question 3	c	a - Tul. Bay	c	
Question 4	a	a	b	
Question 5	a	a	a	
Question 6	b	b	b	
Assessment descriptor	potentially sensitive	potentially sensitive	potentially sensitive	
Enhancement potential				
Question 1	b	a	a	
Question 2	a	a	a	
Question 3	a	a	a	
Question 4	b	a	b	
Question 5	a	a	a	
Question 6	b	b	b	
Assessment descriptor	moderate potential	high potential	high potential	
Education				
Question 1	b	b	b	
Question 2	b	b	c	
Question 3	b	b	b	
Question 4	b	b	b	
Question 5	c	c	c	
Question 6	b	b	b	
Assessment descriptor	education potential	education potential	not appropriate	

Bay City USB

Wetland Assessment Questions: Answer Sheet				
Wetland identifier	MCC 3	MCC 4	MCC 5	
Recreation				
Question 1	c	c	c	
Question 2	c	b	c	
Question 3	c	c	c	
Question 4	b	b	b	
Question 5	b	a	b	
Question 6	b	b	b	
Assessment descriptor	does not provide rec. opp.	rec. potential	does not provide rec. opp.	
Aesthetic quality				
Question 1	c	b	c	
Question 2	a	a	b	
Question 3	a	a	b	
Question 4	a	a	a	
Question 5	b	b	b	
Question 6	a	a	a	
Assessment descriptor	moderately pleasing	pleasing	moderately pleasing	

Function & condition summary sheet for the Oregon Method

Wetland identification: MCC3.

Function	Evaluation Descriptor	Rationale
Wildlife habitat	provides habitat for some species	(+) Emergent veg. with species diversity; adjacent to spruce forest, near Till Bay. Connected to Bay and other wetlands by ditching; may have water quality problems. (-): limited veg. covering interspersed; no open water on site.
Fish habitat	not present	Only small ditches and culverts connect site to other wetland & Till Bay.
Water quality	Function intact	(+) Site has good veg cover for filtering & uptake of pollutants in run-off from adjacent development. Also receives waters from Tillamook Bay, with water quality problems which this area can help clean.
Hydrologic control	function impacted or degraded	(+) Located in 100-flood plain - has evidence of flooding or ponding; has minor outlet flow restrictions. (-) limited by modest size. Function limited by emergent veg. cover, and open space dominance downstream & forest down upper watershed.
Sensitivity to future impacts	potentially sensitive	Sensitive because upstream flow has been modified; dominant land use is development, and it is good for development. Protection includes no woody veg.; no water is being diverted upstream; no limits to water quality.
Enhancement potential	moderate	(+) No fish habitat, but some wildlife enhancement potential; limited hydrologic control potential. (-): small size; adjacent development & zoning for future development.
Education	potential	Access allowed by permission, however main access is on busy st. w/ no parking. Adjacent forests can be observed from site. Habitat for some wildlife species. There is no public access point w/in 250'.
Recreation	does not provide rec. opportunities	No access point within 250'; no boating access or open water; no trails or viewing areas; no hunting within city limits; no water for fishing.
Aesthetic quality	moderately pleasing	(+) Simple emergent vegetation communities w/ adjacent spruce forest; most of wetland is visible. Forests are good visual contrast to emergent wetland. (-): occasional sewer odor; traffic noise.
Narrative description of overall wetland functions and conditions		

Function & condition summary sheet for the Oregon Method

Wetland Identification: MCC 4

Function	Evaluation Descriptor	Rationale
Wildlife habitat	provides habitat for some species	(+) Remnant tidal wet prairie, mostly emergent, but very diverse native species; adjacent to open water of Till. Bay. Good upland buffers. (-): lacks multi-layered veg. and interspersion; Rutel res. to S, swampy bog to N.
Fish habitat	impacted or degraded	(+) Somewhat channels within wetland plus long area adjacent to Till Bay & extensive fish populations. (-): little shading or large debris; Till. Bay water quality is severe for NPS pollutants; developed to N & S.
Water quality	function intact	Receives surface flow from adjacent wetland, as well as Till. Bay. Good veg. cover for filtering & uptake of pollutants from adjacent developed areas as well as Till. Bay which has severe NPS pollution conditions.
Hydrologic control	function impacted or degraded	(+) Located in 100-yr flood plain w/ evidence of flooding; relatively large (>5ac). Also is storage for flood waters in Tillamook Bay. (-): no restrictions of outflow; emergent veg. comm.; Till. Bay is downstream land use.
Sensitivity to future impacts	potentially sensitive	(-) Sensitive because: stream flow has been modified; Till. Bay has severe water quality condition. Dominant land use and zoned use in vicinity is development. Buffers to sensitivity: no upstream water taken out; no woody veg. comm.
Enhancement potential	high potential	Improve wildlife habitat; improve water quality in Bay; Bay is good hydrology source; wetland is large with good upland buffers.
Education	potential	Access allowed by permission; however main access is on easy street w/ no parking. Provides some wildlife and fish habitat. Adjacent Till. Bay can be observed from site, but no public access within 200'
Recreation	recreational potential	(+) There is boat access from Till. Bay; and there is potential for getting to the Bay w/in a mile; fishing is allowed in Till. Bay; & there is pretty good wildlife habitat. (-): no public access or trails; no hunting in city limits.
Aesthetic quality	pleasing	(+) Emergent wet prairie & Till. Bay w/ upland & shrubby hedge rows on edges to screen views of adj. development. Good view of most of wetland. No visual detractors. (-): occasional odors & traffic noise.
Narrative description of overall wetland functions and conditions		

Function & condition summary sheet for the Oregon Method

Wetland identification: MCC 5

Function	Evaluation Descriptor	Rationale
Wildlife habitat	provides habitat for some species	(+): wetlands are adjacent to small stream with good water quality, surrounded by pastures or open space. (-): low veg. complexity and low inter-penetration.
Fish habitat	impacted or degraded	This headwater reach is relatively natural, channel but extensively modified & piped downstream. Good water quality, but grazing upstream & down. little shading or instream structures; probably no fish.
Water quality	function slightly impacted or degraded	(+) Good vegetation cover for filtering & uptake of pollutants from ag land runoff. (-): no streams upstream or adjacent w/ DEQ water qual. problems, but there is a little grazing upstream.
Hydrologic control	function impacted or degraded.	A small headwater stream with a narrow floodplain. A small amount of outlet flow restriction. May help protect downstream ag. land & riparian habitat. Emerg. veg. comm. dom.; watershed above is forested.
Sensitivity to future impacts	potentially sensitive	sensitive because: stream flow has been modified upstream; area is zoned for future development. Factors to sensitivity include: no upstream removal of water; no water quality problems; no woody vegetation; pasture dominant current use.
Enhancement potential	high potential	(+) possible enhancement of wildlife & fish habitat; water qual. & hydrologic control functions; source of water from springs & stream; upland pastureland buffers. (-): development zoning
Education	not appropriate	Access is only with owner permission; with no public access w/ 250'. Hazards include no parking, steep topography, no trails or sidewalks.
Recreation	does not provide rec. opportunities	No access point within 250' of wetland; no boating opportunities; no existing trails. No fishing or hunting allowed.
Aesthetic quality	moderately pleasing	(+) Small emergent wetland along small stream; adjacent uplands mostly agricultural (pasture) with nice visual contrast. (-): limited views, occasional odors (cattle) and traffic noise.
Narrative description of overall wetland functions and conditions		

MCC3

Two emergent wetlands bordered by spruce forest lie east of Elliot Road and south of the sewage lagoons. They are connected by a roadside ditch to each other and to a larger wetland (MCC4) on the other side of Elliot Road. The area provides some wildlife habitat, but fish habitat is not present. Has intact water quality functions, but hydrologic control has been impacted or degraded. The wetland is potentially sensitive to future impacts, and has moderate potential for enhancement. There is education potential on the site, but it doesn't provide recreational opportunities. It is moderately pleasing aesthetically.

MCC4

This is an extensive tidal wet prairie lying between Elliot Road and Tillamook Bay, and south of the sewage lagoons. It is similar to the emergent wetland at DOU2, but MCC4 has much higher number of plant species in the community. It provides some wildlife habitat and fish habitat, but these functions are impacted by nearby development and degraded water quality in Tillamook Bay. The wetland function of helping protect or improve water quality is intact, but the hydrologic control function is impacted. It is potentially sensitive to future impacts, and has high enhancement potential. The area also has potential for education and recreation. It is pleasing aesthetically.

MCC5

This is an emergent wetland area west of Bewley Road and associated with the headwaters of the small stream we have named McCoy Creek. The dominant existing land use is pasture and rural residential. It provides wildlife habitat for some species, but fish habitat is impacted or degraded. Water quality protection is impacted, as is hydrologic control. It is potentially sensitive to future development, and it has high enhancement potential. Lack of access and local safety hazards make it not appropriate for educational purposes. It does not provide recreational opportunities. It has moderately pleasing aesthetic value.

Bay City UGB

Answer sheets & summary sheets

Wetland Assessment Questions: Answer Sheet				
Wetland identifier	DOU 1	DOU 2	JAC 1	
Wildlife habitat				
Question 1	b	a	b	
Question 2	c	a	a	
Question 3	b	a	b	
Question 4	c	b - filling	c	
Question 5	a	a	a	
Question 6	a	a	a	
Question 7	a	c	a	
Question 8	b	a	a	
Question 9	a	a	a	
Assessment descriptor	some habitat	diverse habitat	diverse habitat	
Fish habitat				
Streams and rivers				
Question 1	a	c	a	
Question 2	a	a	a	
Question 3	c	b	b	
Question 4	b	a	a	
Question 5	b	a	a	
Question 6	a	a	a	
Lakes and ponds				
Question 1				
Question 2				
Question 3				
Question 4				
Question 5				
Question 6				
Assessment descriptor	habitat intact	habitat intact	habitat intact	
Water quality				
Question 1	c	a	a	
Question 2	a	a	a	
Question 3	a	a	a	
Question 4	b	a	a	
Question 5	b	c	c	
Question 6	a or b - grazing!	a - filling	c	
Assessment descriptor	function impacted	function impacted	function impacted	

Bay City USB

Wetland Assessment Questions: Answer Sheet

Wetland identifier	DOU 1	DOU 2	JAC 1
Hydrologic control			
Question 1	b	a	b
Question 2	a	a	a
Question 3	b	a	a
Question 4	c	c	c
Question 5	c	a	a
Question 6	c	c	a
Question 7	c	c	c
Assessment descriptor	close to riparian	function is intact	function is intact
Sensitivity to future impacts			
Question 1	a	a	b
Question 2	b	b	b
Question 3	b	a	c
Question 4	b	c	c
Question 5	a	a	a
Question 6	b	a	a
Assessment descriptor	potentially sensitive	potentially sensitive	potentially sensitive
Enhancement potential			
Question 1	b	N/A	N/A
Question 2	b	diverse wildlife habitat	diverse wildlife habitat
Question 3	a		
Question 4	b		
Question 5	a		
Question 6	b		
Assessment descriptor	moderate		
Education			
Question 1	b	a, b	b
Question 2	b	b	b
Question 3	a	a	a
Question 4	b	a	a
Question 5	c	b	b
Question 6	b	b	b
Assessment descriptor	educational potential	educational potential	educational potential

Bay City UGB

Wetland Assessment Questions: Answer Sheet				
Wetland identifier	DOU 1	DOU 2	JAC 1	
Recreation				
Question 1	c	b	b	
Question 2	c	b	c	
Question 3	c	b	b	
Question 4	a	a	a	
Question 5	b	a	b	
Question 6	a if outside city limits	b	a if outside city limits	
Assessment descriptor	not appropriate for recreational opport.	rec. potential	rec. potential	
Aesthetic quality				
Question 1	b	a	b	
Question 2	a	a	c	
Question 3	b	b	b	
Question 4	a	a	a	
Question 5	a	a	a	
Question 6	a	a	a	
Assessment descriptor	moderately pleasing	pleasing	moderately pleasing	

Bay City UGB

Function & condition summary sheet for the Oregon Method

Wetland identification: Dou1

Function	Evaluation Descriptor	Rationale
Wildlife habitat	Provides some wildlife habitat	Mixed vegetation classes w/mod. interspersed; connected to larger wetlands downstream; upland buffers of ag. land; rural setting. <i>drawbacks: somewhat degraded; little open water</i>
Fish habitat	fish habitat function is intact	Connected to Doughty Ck - good stream shading; natural channel; fish in stream. <i>Drawback: this wetland is heavily grazed - NPS pollution source & stream bank degradation</i>
Water quality	Function is impacted:	because wetlands in rural settings are as important for pollution filtering as urban wetlands are. <i>drawback: each is heavily grazed, NPS pollution source</i>
Hydrologic control	function lost (-)	Predominantly emergent wetlands; often on slopes; water from seeps & springs; small storage area; heavily grazed adjacent to stream; forested wetlands downstream; forested lands above assessment area
Sensitivity to future impacts	potentially sensitive	stream channel modified and water quality & vegetation affected by cattle grazing; zoned for future development
Enhancement potential	moderate (+)	wildlife habitat could be improved; fish habitat, water quality & hydrologic control could be improved through grazing controls
Education	has potential for educational use:	Has wildlife & fish habitat; diverse wetland characteristics; <i>drawbacks: private property; hazardous access point</i>
Recreation	not appropriate for recreational opportunities	limited, somewhat hazardous access; no trails or viewing areas except Doughty Rd; cattle grazing limits hunting even if outside city limits
Aesthetic quality	moderately pleasing	Moderately diverse rural landscape with visual contrasts; low traffic noise from Doughty Rd; grazing cattle could be + or -
Narrative description of overall wetland functions and conditions		

Bay City UGB

Function & condition summary sheet for the Oregon Method

Wetland identification: DOU 2

Function	Evaluation Descriptor	Rationale
Wildlife habitat	Provides diverse wildlife habitat	(+) Diverse vegetation w/ complex interpersation; connected to Doughty Ck and Tillamook Bay; upland buffers; some open water.
Fish habitat	Fish habitat function is intact	(+) Tidal wet prairie w/ connections to Tillamook Bay and Doughty Ck; natural channels w/ good cover; fish present. (-) water qual. conditions limited.
Water quality	function is impacted slightly	because wetlands in rural settings aren't as important for filtering pollutants as urban wetlands are; otherwise good.
Hydrologic control	function is intact: (+)	within 100-yr flood plain, positioned to receive flood waters; dense, multilayered vegetation; large (30 acres).
Sensitivity to future impacts	potentially sensitive: (-)	Upstream stream channel (Doughty Ck) modified; there is current rural residential development; most of area zoned for development; forested wetland.
Enhancement potential	little enhancement potential	Areas providing diverse wildlife habitat have little enhancement potential.
Education	has potential for educational use.	(+) Tidal wetland prairie & forest; excellent fish and wildlife habitat. (-) access difficult except along Bay shore; much private property.
Recreation	potential to provide recreational opportunities	(+) Boat access on Tillamook Bay; foot access along Bay shoreline; excellent wildlife habitat; fishing in Bay; (-) no hunting within city limits.
Aesthetic quality	pleasing	(+) Natural relatively undisturbed, complex vegetation patterns w/ broad meadows; adjacent to Tillamook Bay; mostly natural color, sound.
Narrative description of overall wetland functions and conditions		

Bay City UGB

Function & condition summary sheet for the Oregon Method

Wetland Identification: JAC 1

Function	Evaluation Descriptor	Rationale
Wildlife habitat	Provides diverse wildlife habitat (+)	Good connected area; clean water; upland buffers; little development to E & S; rural setting; forested w/ openings; (+) lakes
Fish habitat	Fish habitat function is intact	Shaded stream w/ good cover; natural channel; high water quality; forested upland buffers; diverse fish population
Water quality	function is impacted	because wetlands in rural settings aren't as important for filtering pollutants as urban wetlands are.
Hydrologic control	function is intact:	Positioned to receive flood water; large in size (~28 acres); dense, multilayered vegetation; protection for downstream urban areas.
Sensitivity to future impacts	potentially sensitive:	There is current residential development in the vicinity, and the area is zoned for residential development; forested wetland.
Enhancement potential	little enhancement potential	See rationale for providing diverse wildlife habitat.
Education	has potential for educational use	Forested and emergent wetlands; excellent fish & wildlife habitat; unmaintained access at Big Tree park. Drawbacks: mostly private ownership.
Recreation	potential to provide recreational opportunities	One unmaintained access point with trails at Big Tree park; other access w/ permission of owners; Excellent wildlife habitat; hunting E end, outside city limits.
Aesthetic quality	moderately pleasing	natural rural setting; no visual detractors; good visual contrasts; natural odors and noises; drawbacks: mostly forested wetland or small wet meadows w/ limited view of water.
Narrative description of overall wetland functions and conditions		

Narrative description of overall wetland functions and conditions:

DOU1

On the upper reaches of west fork of Doughty Creek; wetlands are associated with the creek or spring-fed areas feeding into the creek. Provides some wildlife habitat and fish habitat, but has been impacted by cattle grazing. Water quality and hydrologic control have probably also been impacted by grazing, making the area sensitive to future impacts. Private ownership, small size, and lack of access limits recreational potential, although there is some educational potential. Moderate enhancement potential.

DOU2

Large emergent tidal wet prairie, shrub-scrub, and forested wetland complex at Goose Point; hydrology from Doughty Creek and Tillamook Bay. Provides diverse wildlife and fish habitat, as well as educational and recreational opportunities. Provides hydrologic control and is aesthetically pleasing. Is potentially sensitive to future impacts because it is zoned Shorelands 3, a development designation. Relatively natural, undisturbed condition providing a variety of wetland functions allows for little enhancement potential.

JAC1

The complex of wetlands associated with Jacoby Creek within the UGB; hydrology from Jacoby Creek or ground water discharge. Is presently relatively undisturbed, forested area. Provides diverse wildlife habitat and healthy fish habitat, as well as educational and recreational opportunities. Provides hydrologic control, and is aesthetically pleasing, but view areas are limited. Is potentially sensitive to impacts because housing developing is currently occurring in the area and more is planned in the future. Being relatively undisturbed, there is little enhancement potential currently.

Bay City UGB

Answer sheets & summary sheets

Wetland Assessment Questions: Answer Sheet				
Wetland identifier	PAT 1	PAT 2	PAT 3	PAT 4
Wildlife habitat				
Question 1	b	b	a	a
Question 2	c	c	a	a
Question 3	c	c	c	b
Question 4	c	c	c	c
Question 5	b	a	a	a
Question 6	b	a	a	a
Question 7	a	a	a	a
Question 8	c	c	c	c
Question 9	a	c	a	a
Assessment descriptor	provides habitat for some species	provides habitat for some species	provides habitat for some species	provides habitat for some species
Fish habitat				
Streams and rivers	N/A			
Question 1		c	b	a
Question 2		b	a	a
Question 3		c	b	b
Question 4		a	a	a
Question 5		c	c	c
Question 6		a	a	a
Lakes and ponds	N/A			
Question 1				
Question 2				
Question 3				
Question 4				
Question 5				
Question 6				
Assessment descriptor	not present	impacted or degraded	intact	intact
Water quality				
Question 1	c	c	c	a
Question 2	a	a	a	a
Question 3	a	a	a	a
Question 4	c	b	b	b
Question 5	a	a	a	a
Question 6	c	c	c	c
Assessment descriptor	function impacted or degraded	function impacted or degraded	function impacted or degraded	slightly impacted

Wetland Assessment Questions: Answer Sheet

Wetland identifier	PAT 1	PAT 2	PAT 3	PAT 4
Hydrologic control				
Question 1	b	b	b	a
Question 2	a	a	a	a
Question 3	c	b	b	b
Question 4	a	c	b	c
Question 5	c	c	a	a
Question 6	a	a	a	a
Question 7	c	c	c	c
Assessment descriptor	impacted or degraded	impacted or degraded	impacted or degraded	intact
Sensitivity to future impacts				
Question 1	a	b	b	a
Question 2	a	b	b	b
Question 3	c	c	c	c
Question 4	a	a	a	a
Question 5	a	a	a	a
Question 6	b	b	a	a
Assessment descriptor	potentially sensitive	potentially sensitive	potentially sensitive	potentially sensitive
Enhancement potential				
Question 1	b	a	a	a
Question 2	b	b	b	a
Question 3	-	-	-	a
Question 4	c	b	b	b
Question 5	a	c	a	a
Question 6	b	b	b	b
Assessment descriptor	moderate	high	high	high
Education				
Question 1	b	b	b	b
Question 2	a	a	b	c
Question 3	b	b	a	a
Question 4	a	a	c	c
Question 5	c	b	b	c
Question 6	b	b	b	a
Assessment descriptor	potential	potential	potential	not appropriate

Bay City UGB

Wetland Assessment Questions: Answer Sheet				
Wetland identifier	PAT 1	PAT 2	PAT 3	PAT 4
Recreation				
Question 1	c	b	b	a
Question 2	c	c	c	c
Question 3	c	b	b	c
Question 4	b	b	b	b
Question 5	b	b	b	b
Question 6	b	b	b	b
Assessment descriptor	not appropriate	potential	potential	potential
Aesthetic quality				
Question 1	c	c	b	b
Question 2	a	a	b	b
Question 3	a	a	a	a
Question 4	a	b	b	a & b
Question 5	a	a	a	a
Question 6	b	b	b	b
Assessment descriptor	moderately pleasing	moderately pleasing	moderately pleasing	moderately pleasing

Function & condition summary sheet for the Oregon Method

Wetland identification: PAT 1

Function	Evaluation Descriptor	Rationale
Wildlife habitat	provides habitat for some species	(+) Small emergent wetland with adjacent forested upland; near Patterson Ck and other wetlands. No water impoundment; good upland veg. buffers. (-): Emergent veg. only; low interspersed; no open water; nearby development.
Fish habitat	not present	not connected to any water body.
Water quality	function impacted or degraded	(+) Wetland does pond water, and has dense veg cover to filter nutrients from adjacent development. (-): main water source is ground water, not surface water; too small, and isolated from nearby streams.
Hydrologic control	function impacted or degraded	(+): There is evidence of ponding; there is no outlet from wetland; and there is development downslope. (-): Not in the 100-yr floodplain; too small; has only emergent veg.; and the watershed above town is forested.
Sensitivity to future impacts	potentially sensitive	(+) The wetland is isolated hydrologically; the dominant adjacent use is development, and it is zoned for future development. (-) clean water upstream and adjacent reduces vulnerability to impacts; dom emergent veg. is less sensitive than woody veg.
Enhancement potential	moderate	(+): some wildlife enhancement potential; has good upland veg. buffers. (-): main limit is small size; likelihood of future development; limited hydrologic sources other than springs.
Education	potential	(+): The site has some wildlife habitat, potential access to adjacent upland forests. (-): No public access without permission; no fish habitat; no access points or parking, etc.
Recreation	not appropriate	(-): No public access point nearby; no trails or viewing areas; no open water, fishing or boating; no hunting. Very small area.
Aesthetic quality	moderately pleasing	(+): The whole wetland can be viewed; no visual detractors; natural landscape; natural odors; some background traffic noise. (-) Only one wetland community type.
Narrative description of overall wetland functions and conditions		

Function & condition summary sheet for the Oregon Method

Wetland identification: PAT 2

Function	Evaluation Descriptor	Rationale
Wildlife habitat	provides habitat for some species	(+) Connected to other wetlands and Potters Creek by small tribut. stream & ditches; no water quality problems. (-): only emergent veg.; low interspersion; no open water; adjacent development in progress; very limited veg. buffers
Fish habitat	impacted or degraded	(+) On small trib. which is natural upstream with good water quality and may have fish population. (-): channel modified on site & downstream; little or no shading; development at site & downstream.
Water quality	function impacted or degraded	(+) Evidence it ponds water and has dense veg. for uptake and filtering of pollutants from adjacent development. (-): ground water & upstream water is clean; so the filtering function is not as needed currently.
Hydrologic control	function impacted or degraded	(+) Evidence it ponds water; and there is development downstream. (-): it's not in the 100-yr floodplain, outlet has unrestricted flow; the dom. vegetation is emergent; and the dom. land use upstream from Bay City is forest land.
Sensitivity to future impacts	potentially sensitive	(+) Present land use and zoned future land use is development. (-): No modification to upstream channel or water removal upstream; upstream water qual. is good; dom. emergent veg. is less sensitive than woody veg.
Enhancement potential	high	(+) could enhance wildlife or fish habitat, or improve water quality functions or hydrologic control. Connecting hydrology present; upstream water qual. good. (-): limited upland veg. buffers; adjacent development increases future impacts
Education	potential	(+) no safety hazards; some wildlife habitat; impacted fish habitat; access could be created easily; adjacent tree farm; unmaintained access point. (-): access only w/owner permission
Recreation	potential	(+) there is an unmaintained access point with view of wetland; site provides some wildlife habitat. (-): no boating or fishing (no open water); no hunting
Aesthetic quality	moderately pleasing	(+) The whole site can be viewed at once; no visual detractors; adjacent areas of suburban landscaping; natural odors; some traffic noise. (-): only one wetland community type
Narrative description of overall wetland functions and conditions		

Function & condition summary sheet for the Oregon Method

Wetland identification: PAT 3

Function	Evaluation Descriptor	Rationale
Wildlife habitat	provides habitat for (+) some species	multilayered complex of emergent and woody communities dominated by woody veg.; connected to Patterson Ck. & other wetlands by surface waters; no water quality limits; good upland buffers. (-): low interspersed; no open water; adjacent development
Fish habitat	intact (+)	Assoc. w/ Patterson Ck.; Natural stream channel w/ good shading and some instream structures; good water quality and fish populations. (-): Adjacent development
Water quality	function impacted or degraded (+)	Evidence it ponds water and has high veg. cover for uptake and filtering of pollutants from adjacent development. (-): groundwater and Patterson Creek have clean water, so filtering function is not as needed currently.
Hydrologic control	function impacted or degraded (+)	Evidence of ponding, mostly unrestricted flow at outlet; dominated by woody veg.; developed land use downstream. (-): Not in 100-yr flood plain; and some land use in watershed above Bay City is forested.
Sensitivity to future impacts	potentially sensitive (+)	Present land use and future zoned use is development; dominant veg. is woody. (-): Upstream channels have not been modified and no water removal; upstream water quality is good.
Enhancement potential	high (+)	Could enhance wildlife habitat, increase water quality, function, hydrologic control function; good upland veg. buffers; clean water sources. (-): adjacent development exposes site to more future impacts.
Education	potential (+)	Provides some fish and wildlife habitats; and an unmaintained access point exists. (-): Safety hazards include steep banks, and no access trails; limited observation of adjacent features.
Recreation	potential (+)	There is an unmaintained access point w/ view of wetland; site provides some wildlife habitat. (-): No boating or fishing (no open water); no hunting
Aesthetic quality	moderately pleasing (+)	Has two wetland community types; but only part of the wetland is visible; no visual detractors; adjacent areas landscaped by people; natural odors, some traffic noise.
Narrative description of overall wetland functions and conditions		

Function & condition summary sheet for the Oregon Method

Wetland identification: PAT4

Function	Evaluation Descriptor	Rationale
Wildlife habitat	provides habitat for some species (+)	Multilayered complex of woody & emergent communities; woody veg. is dominant with moderate interspersed; connected to other wetlands and Patterson Cr.; no water quality limits; good veg. buffers. (-): no open water; adjacent development.
Fish habitat	intact (+)	Adjacent to Patterson Cr.; Natural stream channel w/ good shading and instream structures; good water quality and fish populations. (-): adjacent development.
Water quality	slightly impacted (+)	Has evidence of ponding and flooding w/ high veg. cover to filter & uptake pollutants from adjacent development. (-): Patterson Cr. has clean water so filtering function is not as needed currently.
Hydrologic control	intact (+)	Is partly in 100-yr flood plain; evidence of ponding and flooding; dominated by woody vegetation; dominant downstream use is development. (-): No restricted outflow; watershed above Bay City is forested land use.
Sensitivity to future impacts	potentially sensitive (+)	Some stream banks have been modified upstream; current land use and zoned future use is for development; dominant plant communities are woody. (-): No water removed upstream; water quality good.
Enhancement potential	high (+)	Could enhance wildlife habitat; good water sources for enhancement projects; good upland buffers; good upstream water quality. (-): adjacent development increases sensitivity to impacts in future.
Education	not appropriate (-)	Too many safety hazards; steep banks, no trails or sidewalk; visual access from Highway 101. no access without permission; active dredge material site at W end.
Recreation	potential (limited) (+)	Next to maintained access point (City Park) but no trail or opening into the wetland; provides some wildlife habitat. (-): There are no trails or viewing areas; no boating or fishing; no hunting.
Aesthetic quality	moderately pleasing (+)	Has two wetland community types, but only part of the wetland is visible; no visual detractors; adjacent uplands are usually landscaped or natural; natural odors; some traffic noise (only heard at W end).
Narrative description of overall wetland functions and conditions		

PAT1

A small emergent wetland on forested property south of Main Street between 11th and 12th. Although the wetland is near Patterson Creek, it is isolated from it; hydrology is primarily from groundwater seepage. It does provide some wildlife habitat, but fish habitat is not present. Because the area is being developed, the wetland does provide water quality enhancement functions and a little hydrologic control, as well as being potentially sensitive to future impacts. There is some potential for wildlife habitat enhancement, but the small size is limiting. There is some educational potential, but the site is not appropriate for recreation. It is moderately pleasing aesthetically.

PAT2

Emergent wetland in an area of current housing development, east of 7th Street between Pacific and High Streets. Hydrology is from groundwater discharge primarily, with additional water supplied by a small tributary to Patterson Creek. Provides habitat for some wildlife species; fish habitat is impacted at site and downstream. Water quality and hydrologic control functions are also impacted or degraded. It is potentially sensitive to future impacts, especially the increase in development occurring adjacent to it. It has high enhancement potential. There is educational and recreation potential on the site, and it is moderately pleasing aesthetically.

PAT3

This is a series of three similar hydrologically related wetlands that lie along Main and/or Trade Streets between 5th and 2nd Streets. Their main source of hydrology is groundwater discharge from a system of subsurface flow that is most likely connected to PAT2 and PAT4 as well. These wetlands are separated by streets but their functions are similar. They provide some wildlife habitat and contribute to intact fish habitat in Patterson Creek. Water quality and hydrologic control functions have been impacted slightly. The areas are potentially sensitive to future development. There is high potential for enhancement, and good potential for education and recreation. They are moderately pleasing aesthetically.

PAT4

Wetland lies between City Park and Highway 101 between B Street and Trade Street. Hydrology is supplied by groundwater discharge of subsurface flow and by Patterson Creek, which flows across the site and discharges into Tillamook Bay on the other side of Highway 101. The west end is used as a dredge materials basin. It provides some wildlife habitat and has intact fish habitat in Patterson Creek. Water quality function is only slightly impacted and hydrologic control is intact. It is potentially sensitive to future impacts, but has high enhancement potential. However, educational and recreation uses, as well as aesthetic appreciation are limited because accessibility to the site is difficult, and in some places is quite hazardous.

Bay City UGB - Jacoby & Patterson Creeks

Watershed setting

All questions pertaining to the watershed can be answered in the office from aerial photographs, U.S. Geological Service topographical maps, and other reference materials. (See Appendix A.) The answers to these questions are used to give decision makers a broader understanding of ecological functions and land uses in the watershed. The answers are summarized on the Watershed Summary Sheet at the end of the Assessment Questions section.

Drainage basin

The Oregon Water Resources Department has divided the state into 18 drainage basins. Check the map in Appendix H to see which drainage basin contains the study site.

1. What is the name of the drainage basin that contains your assessment area?

Physical characteristics of the watershed being assessed (within the drainage basin)**Topography**

- What is the watershed's area in square miles? The watershed area is often much smaller than the drainage basin (see Appendix E).
3. Calculate the average slope of the watershed (see Appendix F).

Hydrologic profile

4. Is the stream flow in the watershed modified by dams, channelization or levees? (Choose all that are appropriate.)
 - a. Tributary streams to the main stem stream are modified.
 - b. Main stem stream is modified.
 - c. Stream flow is not modified (free-flowing.)
5. Is water being taken out of the stream(s) through active diking, drainage or irrigation districts in the watershed upstream of the assessment area?
 - a. Yes.
 - b. No.

Watershed Notes

North Coast

5.5 mi²

23 %

a

b

Land uses within the watershed**Watershed Notes**

- * 6. What is the dominant land use in the watershed upstream from the assessment area?
- Urban.
 - Urbanizing (mix of urban, agriculture and forest uses).
 - Agriculture (farming, ranching or grazing).
 - Forested or natural area.

d for most
b for MCCY & DOUZ
(Tillamook Bay)

Water quality (Use more specific water quality information, if available. Contact local DEQ office, or call the DEQ lab at (503) 229-5983 for sampling information.)

- * 7. Consult the most recent State of Oregon Department of Environmental Quality 305(b) Report to determine whether any streams in the study area are listed as a *water quality limited*. (You may want to ask DEQ whether there are any proposed changes.) This information is included in Clean Water Act section 303(d) reporting.
- Streams or portions of streams within the study area are listed as *water quality limited*.
 - No streams or portions of streams within the study area are listed as *water quality limited*.
- * 8. Consult the most recent *Oregon Statewide Assessment of Nonpoint Sources of Water Pollution* to determine the water quality condition of stream reaches in the watershed upstream from the assessment area. (If both "b" and "c" apply, choose "c.")
- All upstream reaches are listed as *no problem* (or no data available).
 - One or more upstream reaches are listed in *moderate* water quality condition.
 - One or more upstream reaches are listed in *severe* water quality condition.

b except for
Till. Bay - DOUZ & MCCY

all a except
Tillamook Bay - C

Bay City UGB Jacoby & Patterson Creeks

Biological characteristics of the watershed

9. Fisheries: Select all that are appropriate and list type if known. (Contact local Oregon Department of Fish and Wildlife office for this information.)

	Type
a. Cold water.	Chum (wild)
b. Warm water.	Coho (hatchery)
c. Anadromous.	- Cutthroat (res. & sea-run wild)
d. Wild population.	Steelhead
e. Introduced or hatchery populations.	Chinook
f. None.	
g. Other (list).	

10. Are known sensitive, threatened or endangered fish species present in the watershed? If so, list which species.

	Species
a. Yes.	Chum salmon -
b. No.	Steelhead -
c. Unknown.	Coho salmon -

11. Wildlife species: Select all that are appropriate and list species if known. (Contact local Oregon Department of Fish and Wildlife office for this information.)

	Species
a. Migratory birds.	b: elk, bear, deer
b. Big game.	also fur bearers: otter,
c. Nesting birds.	beaver, racoon, bobcat,
	cougar, coyote

12. Are known sensitive, threatened or endangered plant species or wildlife species other than fish present in the watershed? If so, list which species. (Contact local ODFW office or Natural Heritage Council for this information.)

	Species
a. Yes.	hald eagle
b. No.	white-footed vole
c. Unknown.	(red-legged frog N of study area)

Watershed Notes

a

c

d

e

a:

state sensitive

state sensitive

proposed for federal listing; state sensitive

a, b, c

a

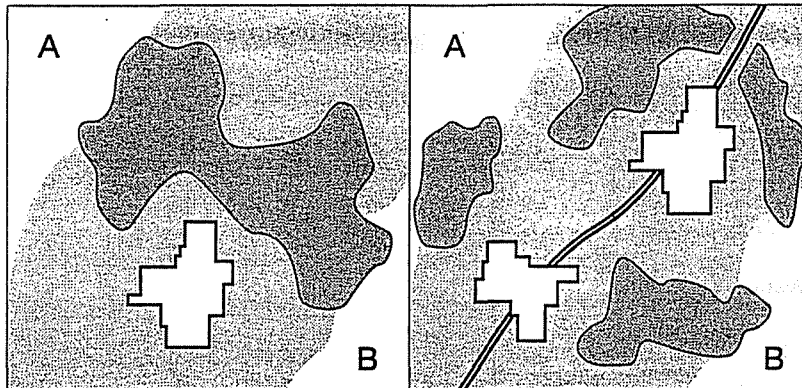


Figure 1. Watersheds as corridors for wildlife movement.

Areas A and B are the end points of a movement corridor through the watershed. Natural areas are shaded darkly, the irregular polygons represent highly developed areas, and the thick black line represents an impassable barrier such as an interstate highway. In the first part of the illustration, the contiguous natural area connects both ends of the corridor. The developed area is a barrier, but it does not obstruct species movement. The second half of the illustration shows fragmented natural areas with an impassable barrier. If the barrier stopped at the smaller developed area and did not continue off the lower left, species movement would still be possible.

13. Does the watershed provide a natural corridor for fish or wildlife movement? (Observe from aerial photographs.) List whether for fish, wildlife or both. Consider fences, dams and other barriers to travel. Aerial photographs of the watershed area are the best source of information. Fragmented systems have barriers to movement or a section where the natural area is broken by developed area.

A corridor is a landscape feature that enables fish or wildlife species to travel between broad geographical areas. (See Figure 1.)

- There are contiguous natural areas that allow species movement, and if barriers exist, they do not stop animal or fish movement.
 - The natural areas are fragmented, but species movement is still possible.
 - The habitat system is fragmented, and there are barriers to species movement.
14. What are the landscape features at both ends of the movement corridor? (These may lie outside the assessment area.) From an aerial photo, observation or local knowledge, determine whether there are large natural areas at either end of the movement corridor. The natural area does not have to be a wetland.
- Large natural habitat areas are at both ends.
 - One end has a natural habitat area and the other end is developed.
 - Both ends are developed.

Watershed Notes

wild life :
a) to N, S & E ; Highway 101
and RR tracks are barriers
to the Bay (W).

fish: b

N ↔ S a
E ↔ W b

Bay City

DOU 2 MCC4
Wetland 1 Wetland 2 Wetland 3

Wetlands of Special Interest for Protection

The first filter in the Oregon Method is to see whether the wetland is in a management plan, is protected by regulatory rules or statutes, or is uncommon in Oregon. A "yes" answer to any of the following questions will place the wetland into this category and management decisions should be made to protect the site. You still may want to evaluate the functions and conditions of each wetland to give you an overall evaluation of the wetlands in your assessment area. You should note on the Function and Condition Summary Sheet (Chapter VI and Appendix C) the information from this section. You do not need to contact every agency listed, but all listed either have all or some of the information you need.

Question 1

Does the wetland contain threatened, endangered or sensitive species of wildlife, plants, invertebrates or fish? (Either federal- or state-listed. Include species.) If yes, list.

- a. Yes
b. No
c. Unknown
List:

Information source

Oregon Natural Heritage Program/
The Nature Conservancy, U.S. Fish and
Wildlife Service, National Marine Fish-
eries Service, Oregon Department of
Fish and Wildlife, Oregon Department
of Agriculture.

Question 2

Is the wetland designated as critical habitat or essential habitat for federal- or state-listed threatened or endangered species of plants, invertebrates, wildlife or fish? If yes, list species.

- a. Yes
b. No
c. Unknown
List:

Information source

U.S. Fish and Wildlife Service, Na-
tional Marine Fisheries Service, The
Nature Conservancy.

a Doughty Lake below goose ponds b	c b	There are two heron rookeries: - in Goose Pond area between MCC 2 & MCC 3 - in Kitchikan area
---	-------------------	--

South of
settling ponds
in spruce forest
between Harren & Elliot

Question 3

Is the wetland a dedicated or proposed Registered State Natural Area or Area of Critical Environmental Concern, State Natural Heritage Conservation Area, Federal Research Natural Area, or a Nature Conservancy Preserve?

- a. Yes
b. No
c. Unknown
List which it is:

Information source

The Nature Conservancy, the Oregon Natural Heritage Program, U.S. Forest Service, Bureau of Land Management, U.S. Fish and Wildlife Service, National Park Service and Corps of Engineers.

Question 4

Is the wetland documented as habitat for, or of regional or national significance for migratory birds?

- a. Yes
b. No
c. Unknown
List which species:

Information source

U.S. Fish and Wildlife Service, Oregon Department of Fish and Wildlife.

Question 5

Is the wetland protected in a local wetland conservation plan or a local comprehensive plan as a Goal 5 or Goal 17 resource?

- a. Yes
b. No
c. Unknown

Information source

Local planning office.

Question 6

Is the wetland a designated State Outstanding Resource Water?

- a. Yes
b. No
c. Unknown

Information source

Oregon Department of Environmental Quality.

Wetland 1 Wetland 2 Wetland 3

b	b	
c	c	
b	b	

Wetland 1 Wetland 2 Wetland 3

Question 7

Is the wetland a protected area in a recognized federal, state or local management plan, e.g., for a park, refuge or scenic river?

- a. Yes
- b. No
- c. Unknown

List name:

Information source

Oregon Department of Fish and Wildlife, State Parks, U.S. Fish and Wildlife Service, Bonneville Power Administration, Bureau of Land Management, National Park Service, METRO.

Question 8

Is the wetland a *protected* mitigation site for a removal-fill permit, federal 404 fill permit, or enforcement action? Protected means there is a legal instrument, such as a conservation easement, that will preclude a wetland impact permit from being issued for this site.

- a. Yes
- b. No
- c. Unknown

Information source

Oregon Division of State Lands, Corps of Engineers, Environmental Protection Agency.

Question 9

Is the wetland a restoration or protected area included in the wetland conservation program administered by the Agricultural Stabilization and Conservation Service? The length of protection may vary depending on landowner agreements.

- a. Yes
- b. No
- c. Unknown

Information source

Soil Conservation Service, Agricultural Stabilization and Conservation Service.

Wetland 1	Wetland 2	Wetland 3
c	c	
b	b	
b	b	

Wetland 1	Wetland 2	Wetland 3
1	1	1
2	2	2
3	3	3
4	4	4
5	5	5
6	6	6
7	7	7
8	8	8
9	9	9
10	10	10
11	11	11
12	12	12
13	13	13
14	14	14
15	15	15
16	16	16
17	17	17
18	18	18
19	19	19
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86	86	86
87	87	87
88	88	88
89	89	89
90	90	90
91	91	91
92	92	92
93	93	93
94	94	94
95	95	95
96	96	96
97	97	97
98	98	98
99	99	99
100	100	100

- a. Yes
- b. No
- c. Unknown

1	2	3
4	5	6
7	8	9
10	11	12
13	14	15
16	17	18
19	20	21
22	23	24
25	26	27
28	29	30
31	32	33
34	35	36
37	38	39
40	41	42
43	44	45
46	47	48
49	50	51
52	53	54
55	56	57
58	59	60
61	62	63
64	65	66
67	68	69
70	71	72
73	74	75
76	77	78
79	80	81
82	83	84
85	86	87
88	89	90
91	92	93
94	95	96
97	98	99
100	101	102

Dou2 & MCC4

may be the last large remnant
of this tufted hairgrass intertidal
marsh in Tillamook Bay.

Bay City UGB

Individual wetland sites

Fill out this part of the characterization for each wetland in the assessment area. Some of the information can be gathered in the office; some must be gathered at the site. You may want to do a rough sketch of the site (doesn't have to be to scale) to refer to back in the office.

Wetland structure and relation to surrounding landscape

- ✓ 15. What percentage of the area within 500 feet of the wetland's edge is dedicated to the land uses listed below? (From overlay 2 or in the field.)

It is best to determine the land uses from a recent aerial photo. If an aerial photo is not available, measure 500 feet in the field to get an idea of distance to evaluate. Use the following ranges for your answers for each land-use category:

- Less than 20%.
- Between 20% and 50%.
- Greater than 50%.

- Open Space (includes natural areas, parks and developed recreation areas, but not land designated for Exclusive Forest Use).
- Agriculture (pasture, cropped lands, orchards, range land).
- Exclusive Forest Use lands.
- Developed uses (residential, commercial or industrial—rural and urban).
- Other (list).

- ✓ 16. What is the dominant existing land use within 500 feet of the wetland on the **downstream or down-slope edge** of the wetland? Use the same land-use categories as question 15.

17. What is the wetland's area in acres? (Measure the entire area of contiguous wetland, not just the portion within the assessment area. Use the dimensions of the wetland as outlined on the base map.)

- Greater than 5 acres.
- Between 0.5 acres and 5 acres.
- Less than 0.5 acres.

DOU 1

DOU 2

JAC 1

Wetland 1

Wetland 2

Wetland 3

	1 = C 2 = a 3 = a 4 = b	1 = C 2 = a 3 = a 4 = b
	(Till. Bay, estuary, adjacent wetlands)	4
	#16 1	
b	a	a

✓ Questions preceded by a check mark can be completed in the field.

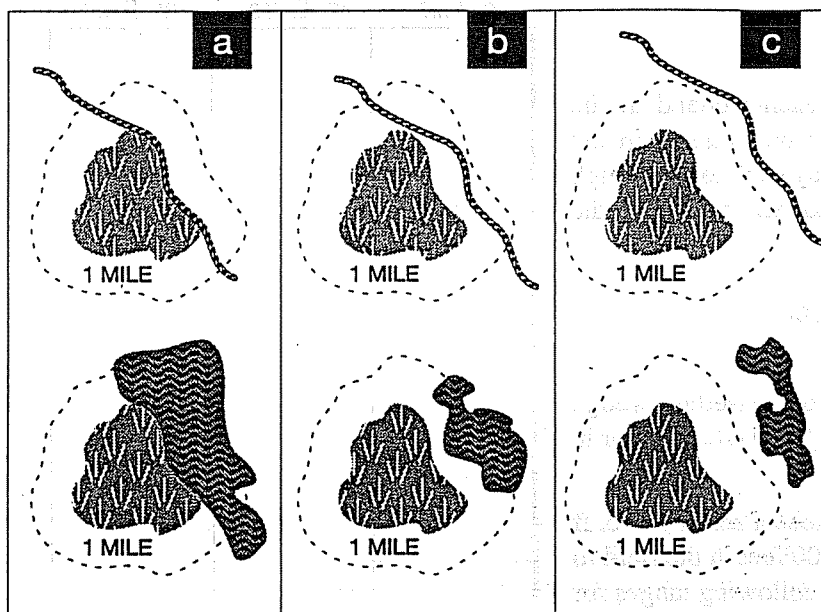


Figure 2. Connectivity to streams, lakes and ponds.

The lightly shaded area represents a wetland, the darkly shaded area represents a lake or pond and the dark line represents a stream. Part "a" shows the wetland connected to a stream, lake or pond, part "b" shows a stream, lake or pond within 1 mile but no surface connection, and part "c" shows no stream, lake or pond within 1 mile and no surface connection.

18. How is the wetland connected to another body of water, such as a stream, lake or pond? (See Figure 2.)

- The wetland is connected by surface water to another body of water. This may be by a culvert, irrigation ditch, intermittent stream or perennial stream.
- No surface-water connection exists to another body of water, but other bodies of water lie within 1 mile of the wetland.
- No surface-water connection exists to another body of water, and no other bodies of water lie within 1 mile of the wetland.

19. Is all or part of the wetland located within the 100-year floodplain (use floodplain maps to determine) or within an enclosed basin? An enclosed basin has no inlet or outlet.

- Yes.
- No.

DOU1 DOU2 JAC 1
Wetland 1 Wetland 2 Wetland 3

a	a	a
b	a	b

DOU 1 DOU 2 JAC 1

20. What percentage of the area within 500 feet of the wetland's edge is **zoned** for each of the land uses listed below?

Use the following ranges for your answers:

- Less than 20%
 - Between 20% and 50%
 - Greater than 50%.
- Open Space (includes natural areas, parks and developed recreation areas, but not lands zoned for Exclusive Forest Use).
 - Agriculture (pasture, cropped lands, orchards, range land).
 - Exclusive Forest Use lands.
 - Developed uses (residential, commercial, industrial).
 - Other (list).

Wetland 1 Wetland 2 Wetland 3

4 = C (rural residential)	2 = a 4 = C 5 = b (estuary)	2 = a 3 = a 4 = C
2 = a 3 = C	2 = C 3 = b 4 = d	4 = a
N/A	N/A	N/A
C	a	a

Wetland habitat

21. What percentage of the wetland's area is covered by the following Cowardin wetland classes? (Cowardin wetland classes refer to a classification of wetland type by vegetation cover. See Appendix D.) Only list those that compose 10% or more of the overall wetland.

The percentages can be estimated in the field or from aerial photographs. Use the following categories for your answers:

- Between 70% and 100%.
 - 50% or more, but less than 70%.
 - 20% or more, but less than 50%.
 - 10% or more, but less than 20%.
- Open water (deep water habitat, greater than or equal to 6.6 feet or 2 meters).
 - Emergent (includes floating aquatics—herbaceous plants that can tolerate flooding and living in wet soils).
 - Scrub-shrub (woody vegetation under 20 feet tall).
 - Forested (woody vegetation 20 feet or taller).

22. For urban areas, how many wetland plant species are present? (You need not list the species name.)

- More than 5 plant species.
- Between 2 and 5 plant species.
- 1 plant species (monotypic).

23. What is the dominant wetland vegetation cover type?

- Woody vegetation (forested and scrub-shrub).
- Emergent vegetation and ponding, or open water only.
- Emergent vegetation only or wet meadow.

- ✓ 24. Refer to the diagrams in Figure 3 and select the one that most closely resembles the interspersions of Cowardin wetland classes and, if present, upland inclusions. (An upland inclusion is an island or an upland area surrounded on three sides by wetland.)

Wetlands composed of only one wetland class or with two wetland classes and a simple pattern have low interspersions. Wetland and upland complexes that have at least two wetland classes and a complex pattern have a moderate interspersions pattern. Wetlands with two or more wetland classes or upland inclusions with a complex pattern and lots of edge have a high interspersions pattern. If the wetland you are observing does not reflect any of the diagrams, use the above guidance to determine the complexity of the interspersions pattern and draw a sketch of the wetland.

- a. High.
b. Moderate.
c. Low.

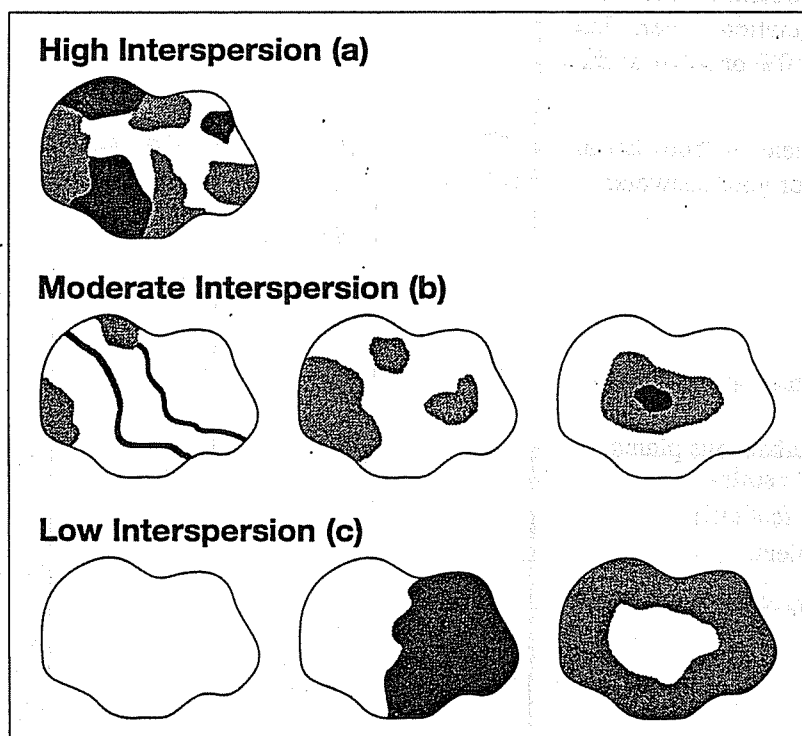


Figure 3. Interspersion of Cowardin classes and upland inclusions.

DOU 1 DOU 2 JAC 1
Wetland 1 Wetland 2 Wetland 3

DOU 1 Wetland 1	DOU 2 Wetland 2	JAC 1 Wetland 3
b	a	b

✓25. For **rural areas**: What percentage of the wetland's edge is bordered by upland wildlife habitat that is at least 150 feet wide? Brush, woodland, non-farmed agricultural land and range land are considered upland habitat for this question. Actively farmed lands are not considered wildlife habitat. (See Figure 4.)

- a. Greater than 40%.
- b. Between 10% and 40%.
- c. Less than 10%.

✗ ✓26. For **urban areas**: What percentage of the wetland's edge is bordered by a vegetative buffer at least 25 feet wide? A vegetative buffer consists of trees, bushes or vegetation that is not regularly mowed or farmed. (See Figure 5.)

- a. Greater than 40%.
- b. Between 10% and 40%.
- c. Less than 10%.

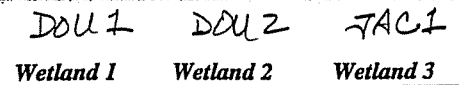
✗ 27. How is the wetland connected to other wetlands? (Look at an aerial photo or map to determine this.)

- a. Connected to other wetlands within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, culvert, canal or lake.
- b. Not connected by surface waters, but other unconnected wetlands lie within a 3-mile radius.
- c. Not connected to other wetlands by surface waters, and no other unconnected wetlands lie within a 3-mile radius.

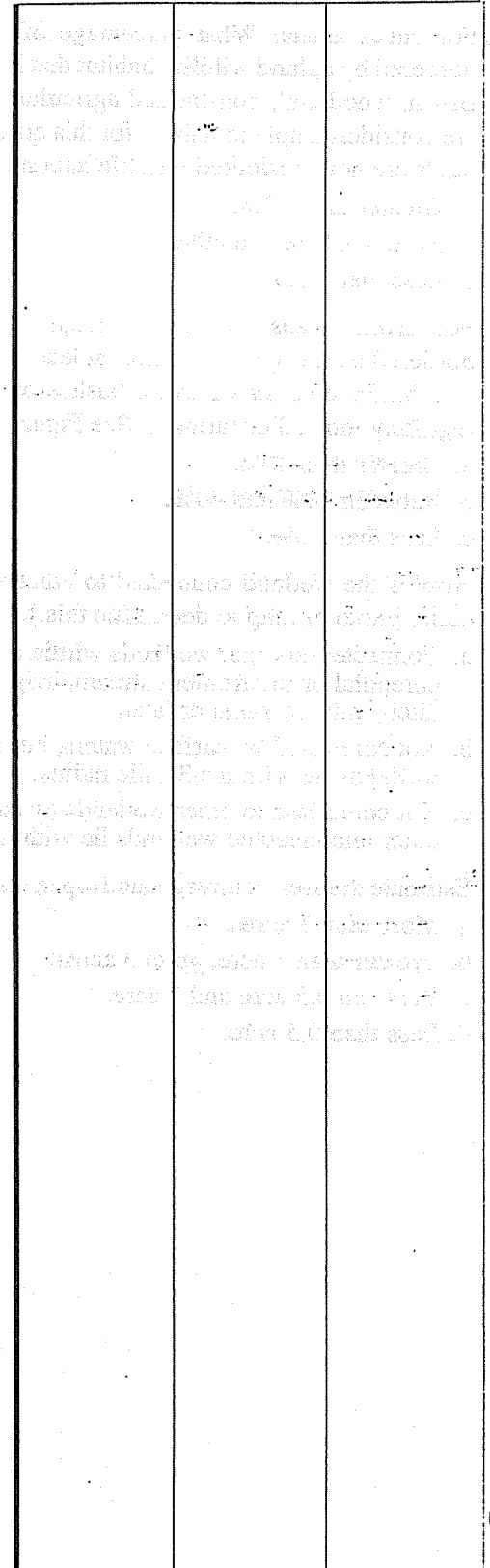
★ 28. Estimate the area of unvegetated, open water within the wetland.

- a. More than 3 acres.
- b. Greater than 1 acre, up to 3 acres.
- c. Between 0.5 acre and 1 acre.
- d. Less than 0.5 acre.

DOU 1	DOU 2	JAC 1
Wetland 1	Wetland 2	Wetland 3
a	a (including wet edges outside study area)	a
N/A	N/A	N/A
a	a	a
N/A	d	N/A



The dashed line delineates the area within 150 feet of the wetland; the "woodland" and "brush" areas are upland habitat; and the lines perpendicular to the wetland edge indicate where the upland habitat adjacent to the wetland habitat is at least 150 feet wide. The dark lines (portions of the wetland bordered by upland habitat at least 150 feet wide) make up roughly one-third (between 10% and 40%) of the wetland perimeter.



The dashed line delineates the area within 25 feet of the wetland; the vegetative buffer areas are labeled "buffer"; and the lines perpendicular to the wetland edge indicate where the vegetative buffer adjacent to the wetland habitat is at least 25 feet wide. The dark lines (portions of the wetland bordered by a vegetative buffer at least 25 feet wide) make up roughly one-third (between 10% and 40%) of the wetland perimeter.

Fisheries habitat

29. Are fish present in a stream, lake or pond connected to the wetland.
- Salmon, trout or sensitive species are present at some time during the year.
 - Species not covered in "a" are present at some time during the year.
 - No species are present at any time during the year.

Streams connected to the wetland

Complete this section only if the wetland being assessed has an unimpeded surface water connection to a stream.

- ✓30. What is the physical character of the stream channel? To observe stream channel modifications, look for built rock banks, cement sides, straightened areas or other human-created features.
- The stream is in a natural channel, or modified portions of the stream are returning to a natural channel.
 - Only portions of the stream are modified.
 - The stream is extensively modified or confined in a non-vegetated channel or pipe.

- ✓31. What percentage of the stream is shaded by streamside (riparian) vegetation?
- Greater than 75%.
 - Between 50 and 75%.
 - 25% or more, but less than 50%.
 - Less than 25%.

- ✓32. What percentage of the stream contains instream structures such as large woody debris, floating or submerged vegetation, large rocks or boulders?
- Greater than 25%.
 - Between 10% and 25%.
 - Less than 10%.

Lakes or ponds (entire lake or pond and wetland complex)

Complete this section only if the wetland being assessed has a surface water connection to a lake or pond.

- ✓33. Does the lake or pond contain areas of deep and shallow water? ("Deep" is defined as more than 6.5 feet deep.)
- Yes.
 - Cannot be determined.
 - No.

DOU 1 DOU 2 JAC 1
Wetland 1 Wetland 2 Wetland 3

Doughty ck. a	Doughty ck's Till. Saw a	Jacoby ck. a
a	a	a
a	a	a
a	c	a
c	b	b
N/A	N/A	N/A

DOU1 DOU2 JAC1
Wetland 1 Wetland 2 Wetland 3

- * ✓34. What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?
- 60% or more.
 - 20% or more, but less than 60%.
 - Less than 20%.
- * ✓35. What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?
- Greater than 25%
 - Between 10 and 25%
 - Less than 10%

Wetland hydrology

- * 36. What is the wetland's **primary** source of water? (Determine in the field or in the office. This may be difficult to determine. If a surface water connection exists—stream, lake, ditch—use it as the primary source. If no surface water connection is present, talk to local natural resource people for hints.)
- Surface flow, including streams and ditches.
 - Precipitation or sheet flow.
 - Groundwater, including springs or seeps.
- * 37. Is there evidence of flooding or ponding during a portion of the growing season? Look for evidence of water fluctuation such as sediment stains on trees, drift lines, surface scour or sediment deposits. Also look at the location of the wetland. Is it in a distinct topographic depression or adjacent to a stream that is known to flood or fluctuate because of storm pulses?
- Yes (describe).
 - Unable to determine or not applicable.
 - No.
- * 38. Is water flow out of the wetland restricted (e.g., beaver dam, concrete structure, undersized culvert)?
- Yes, the outlet is restricted or the wetland has no outlet.
 - Minor restrictions slow down the water (e.g., undersized culvert).
 - No, the outlet has unrestricted flow.

N/A	N/A	N/A
↓	↓	↓
C	a and tides	a
a - low areas adj. to stream	a - tidal; matted veg, debris	a - obs.
C	C	C

DOU 1 DOU 2 JAC 1
Wetland 1 Wetland 2 Wetland 3

38 ✓39. If the primary source of water is surface flow, is the water flow into the wetland restricted?

- a. Flow is not restricted, or if blocked, the obstruction can be removed easily.
- b. Permanent blockage to the flow exists but may be breached or a new flow channel created (engineering or earth moving solution).
- c. Flow is restricted and cannot be restored.

40. Has the stream flow or stream bank been modified by human activities less than 1 mile above the wetland? Modifications include dams, channelizations and levees, and confinement of the stream in a pipe.

- a. Yes.
- b. No.

41 *out* **Public access to wetland site** (select an appropriate area to observe the wetland to answer these questions.)

41. Is the wetland site open to the public for direct access or observation?

- a. Yes, the wetland is open to the public.
- b. Yes, but wetland access is allowed only by permission of the landowner or managing entity.
- c. No, access is not allowed.

42. Are there visible hazards to the public at the wetland site? (Examples: busy road adjacent to the site, and no buffer or sidewalk exists; steep embankment; and contaminated water.)

- a. No.
- b. One or two visible safety hazards exist (describe).
- c. More than two visible safety hazards exist (describe).

43. Are there other natural landscape features, such as a stream, lake, pond, forest or agricultural land contiguous or adjacent to the wetland?

- a. Yes. (List type and extent.)
- b. No.

Wetland 1	Wetland 2	Wetland 3
a	a	a
a	a	b
b	a along Bay shore	a Big Tree Park b most of area
b - no paths; cattle	b - tides; deep water in tidal channels; impenetrable veg.	b - dirt trails; no bridges over ck.
a - ag lands; forested - to S	a - Tillamook Bay	a - forests; Jacobsy ck.

✓44. Is there existing physical public access to features listed in Question 43? If not, can such access be created easily, or can other habitats be observed from the site? For a stream, pond or lake, access may require dry ground to the water's edge. Stream access could also be at a road crossing, but consider the safety at such locations

- a. Public access to other habitats exists or can be created easily.
- b. Public access doesn't exist and can't be created easily, but observation of other features can be made from the site.
- c. Public access doesn't exist and can't be created easily. In addition, observation of other features can't be made from the site.

* ✓45. Does it appear that access to a viewing spot or wetland edge is available for individuals with limited mobility? (To see whether the site meets ADA requirements, a more thorough examination should be done.)

- a. Yes.
- b. No. (List physical barriers.)

add 47 ✓46. Is there a public access point within 250 feet of the wetland's edge? Access points include parking lots, transit stops, bike lanes, trails and water courses. Maintained means that the area is designated as a car or transit area by the managing entity. Unmaintained would be a road pull-off or other area that people use but is not designated for such use. Describe the type of access.

- a. Yes, a maintained access point exists (describe).
- b. Yes, an unmaintained access point exists (describe).
- c. No access point exists, or the access point is hazardous.

Recreation

add 48 ✓47. Is the wetland accessible by boat?

- a. Boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of water.
- b. Potential to develop boat launching areas or access points exists, or such features are more than 1/2 mile but less than 1 mile from the wetland.
- c. No boat launching areas or access points exist within 1 mile of the wetland, and potential to develop launching areas or access points is limited.

DOU 1 DOU 2 JAC 1
Wetland 1 Wetland 2 Wetland 3

b	a	a
b - no solid surface; no parking	b - topography, hydrology	b - no solid surfaces etc; dirt or mud trail
c	b - W end of Salmon St, access to Bay Shore	b - trail into Big Tree, end of A St
c	a or b	c

	DOU 1	DOU 2	JAC 1
	Wetland 1	Wetland 2	Wetland 3
48. Are there trails, viewing areas or other structures that guide user movement to a particular area or areas in or around the wetland?			
a. Yes, developed or maintained trails or viewing areas exist.	c	b	b
b. Yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat.			
c. No trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.			
* 49. Is fishing allowed at the wetland or connected water body? (Contact local Oregon Department of Fish and Wildlife office.) Answer "not applicable" if question 18 was answered "b" or "c," unless question 21 indicates that 10% or more of the wetland's area is covered by open water.	b	a In Fish Bay	b
a. Yes (either all or part of the year).			
b. No.			
c. Not applicable:			
50. Is hunting allowed at the wetland? (If the wetland is within the city limits, hunting is not allowed. Otherwise, contact the local Oregon Department of Fish and Wildlife office for this information.)	a, if outside city limits	b	a, if outside city limits
a. Yes (either all or part of the year).			
b. No.			
Aesthetics			
51. For rural areas, what is the extent of visual contrast with the surrounding landscape? (See Figure 6.)			
a. Significant contrast with surrounding landscape.	a	a	a
b. Limited contrast with surrounding landscape.			
c. Little or no contrast with surrounding landscape.			
52. For urban areas, what is the visual character of the surrounding area? (See Figure 7.)			
a. Open space or naturally landscaped areas.	N/A	N/A	N/A
b. Areas landscaped or manipulated by people.			
c. Developed with no landscaping.			
53. Are there visual detractors at the wetland site such as abandoned cars, litter, shopping carts or other objects that distract the viewer from the wetland?			
a. Yes.	b	b	b
b. No.			
54. If the wetland contains visual detractors, as indicated in question 53, can they be removed easily?			
a. Yes.	N/A	N/A	N/A
b. No.			

Bay City UGB

Locate the primary viewing area(s) for the following four questions (be sure to indicate the location on the overlay).

- ✓55. What odors are present at the primary viewing location(s)?
- Natural, pleasant odors only.
 - Unpleasant odors such as automobile exhaust or stench from a sewage treatment plant are present at certain times.
 - Unpleasant odors are distinct and continuously present.



Figure 6. Visual contrast.

The top part of the figure shows a wetland with significant visual contrast with the surrounding landscape. The bottom part shows a wetland with little or no visual contrast with the surrounding landscape.

DOU 1	DOU 2	JAC 1
Wetland 1	Wetland 2	Wetland 3
From SP#164 Doughty Rd	From SP#53-2 PEM	From SP#11-1 E of open meadow
a	a	a

- ✓56. What noises are audible at the primary viewing location(s)?
- Bird and wildlife noises and other naturally occurring sounds.
 - Some traffic and other similar background sounds are audible in addition to naturally occurring sounds.
 - Continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds.
 - Continuous traffic or other intrusive noise is audible, but no naturally occurring sounds are.
- ✓57. How much of the wetland is visible from the viewing area(s)? Describe the view.
- Greater than 50%.
 - Between 25% and 50%.
 - Less than 25%.
- ✓58. How many Cowardin classes are visible from the primary viewing area(s)? (See question 21 for list of Cowardin classes to use.)
- More than two.
 - Two
 - One

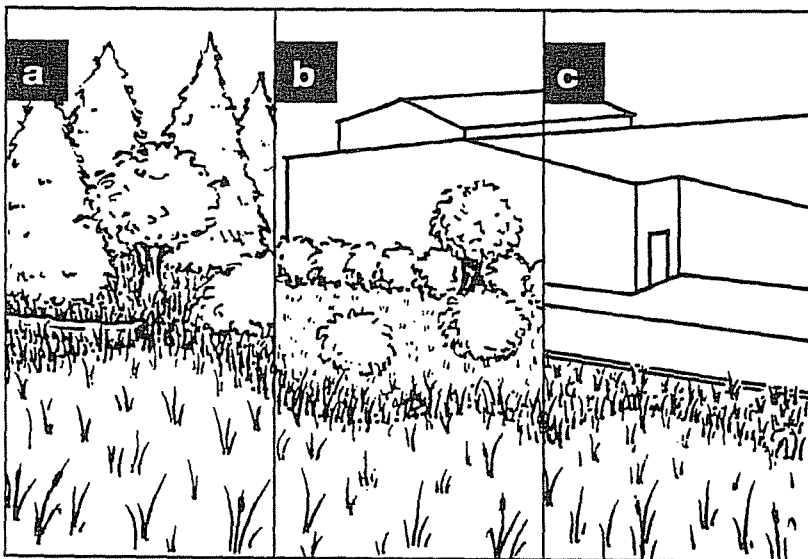


Figure 7. Visual character of urban wetlands. Beginning with the left part, this figure shows an urban wetland with naturally landscaped areas, areas landscaped by people and with unlandscaped developed areas.

DOU 1 Wetland 1	DOU 2 Wetland 2	JAC 1 Wetland 3
b	b	a
a: gentle slope; dry land; wet drainage, PEM, PSS	a: 70% wet prairie (PEM) with orig. PFO, PSS	c: small wet meadows in forested area
b	a	b
	may be less than 50%, but it's a large area!	

Bay City UGB

Individual wetland sites

Fill out this part of the characterization for each wetland in the assessment area. Some of the information can be gathered in the office; some must be gathered at the site. You may want to do a rough sketch of the site (doesn't have to be to scale) to refer to back in the office.

Wetland structure and relation to surrounding landscape

- ✓15. What percentage of the area within 500 feet of the wetland's edge is dedicated to the land uses listed below? (From overlay 2 or in the field.)

It is best to determine the land uses from a recent aerial photo. If an aerial photo is not available, measure 500 feet in the field to get an idea of distance to evaluate. Use the following ranges for your answers for each land-use category:

- Less than 20%.
- Between 20% and 50%.
- Greater than 50%.

- Open Space (includes natural areas, parks and developed recreation areas, but not land designated for Exclusive Forest Use).
- Agriculture (pasture, cropped lands, orchards, range land).
- Exclusive Forest Use lands.
- Developed uses (residential, commercial or industrial—rural and urban).
- Other (list).

- ✓16. What is the dominant existing land use within 500 feet of the wetland on the **downstream or down-slope edge** of the wetland? Use the same land-use categories as question 15.

17. What is the wetland's area in acres? (Measure the entire area of contiguous wetland, not just the portion within the assessment area. Use the dimensions of the wetland as outlined on the base map.)

- Greater than 5 acres.
- Between 0.5 acres and 5 acres.
- Less than 0.5 acres.

PAT 1 PAT 2 PAT 3
Wetland 1 Wetland 2 Wetland 3

2 = b 4 = c	2 = a 3 = b 4 = c	1 = a 4 = c
4	4	4
c	b	b

✓ Questions preceded by a check mark can be completed in the field.

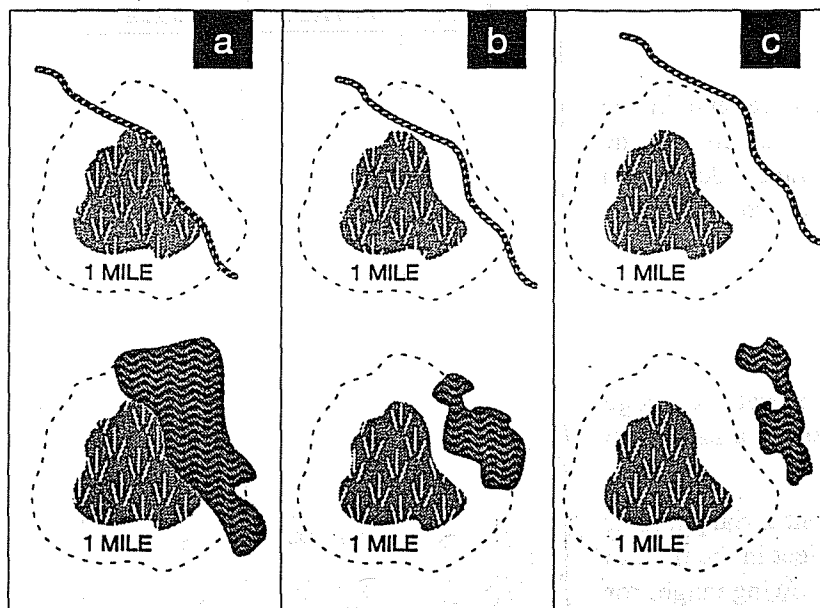


Figure 2. Connectivity to streams, lakes and ponds.

The lightly shaded area represents a wetland, the darkly shaded area represents a lake or pond and the dark line represents a stream. Part "a" shows the wetland connected to a stream, lake or pond, part "b" shows a stream, lake or pond within 1 mile but no surface connection, and part "c" shows no stream, lake or pond within 1 mile and no surface connection.

18. How is the wetland connected to another body of water, such as a stream, lake or pond? (See Figure 2.)
- The wetland is connected by surface water to another body of water. This may be by a culvert, irrigation ditch, intermittent stream or perennial stream.
 - No surface-water connection exists to another body of water, but other bodies of water lie within 1 mile of the wetland.
 - No surface-water connection exists to another body of water, and no other bodies of water lie within 1 mile of the wetland.
19. Is all or part of the wetland located within the 100-year floodplain (use floodplain maps to determine) or within an enclosed basin? An enclosed basin has no inlet or outlet.
- Yes.
 - No.

PAT 1	PAT 2	PAT 3
Wetland 1	Wetland 2	Wetland 3
b	a	a
a enclosed basin	b	b

20. What percentage of the area within 500 feet of the wetland's edge is **zoned** for each of the land uses listed below?

Use the following ranges for your answers:

- Less than 20%
 - Between 20% and 50%
 - Greater than 50%.
- Open Space (includes natural areas, parks and developed recreation areas, but not lands zoned for Exclusive Forest Use).
 - Agriculture (pasture, cropped lands, orchards, range land).
 - Exclusive Forest Use lands.
 - Developed uses (residential, commercial, industrial).
 - Other (list).

21 ^{out}
Wetland habitat

21. What percentage of the wetland's area is covered by the following Cowardin wetland classes? (Cowardin wetland classes refer to a classification of wetland type by vegetation cover. See Appendix D.) Only list those that compose 10% or more of the overall wetland.

The percentages can be estimated in the field or from aerial photographs. Use the following categories for your answers:

- Between 70% and 100%.
 - 50% or more, but less than 70%.
 - 20% or more, but less than 50%.
 - 10% or more, but less than 20%.
- Open water (deep water habitat, greater than or equal to 6.6 feet or 2 meters).
 - Emergent (includes floating aquatics—herbaceous plants that can tolerate flooding and living in wet soils).
 - Scrub-shrub (woody vegetation under 20 feet tall).
 - Forested (woody vegetation 20 feet or taller).

22. For urban areas, how many wetland plant species are present? (You need not list the species name.)

- More than 5 plant species.
- Between 2 and 5 plant species.
- 1 plant species (monotypic).

23. What is the dominant wetland vegetation cover type?

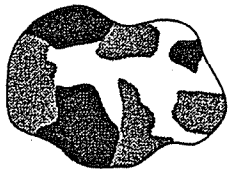
- Woody vegetation (forested and scrub-shrub).
- Emergent vegetation and ponding, or open water only.
- Emergent vegetation only or wet meadow.

PAT 1 Wetland 1	PAT 2 Wetland 2	PAT 3 Wetland 3
2 = a 4 = c	2 = a 3 = a 4 = c	1 = a 4 = c
2 = a	2 = a	2 = c 4 = a
a	a	a
c	c	a

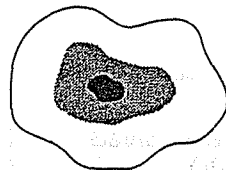
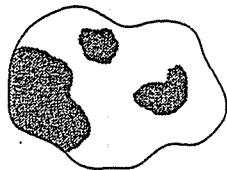
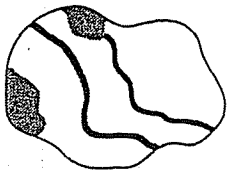
- ✓ 24. Refer to the diagrams in Figure 3 and select the one that most closely resembles the interspersion of Cowardin wetland classes and, if present, upland inclusions. (An upland inclusion is an island or an upland area surrounded on three sides by wetland.).

Wetlands composed of only one wetland class or with two wetland classes and a simple pattern have low interspersions. Wetland and upland complexes that have at least two wetland classes and a complex pattern have a moderate interspersions pattern. Wetlands with two or more wetland classes or upland inclusions with a complex pattern and lots of edge have a high interspersions pattern. If the wetland you are observing does not reflect any of the diagrams, use the above guidance to determine the complexity of the interspersions pattern and draw a sketch of the wetland.

- High.
- Moderate.
- Low.



Moderate Interspersion (b)



Low Interspersion (c)

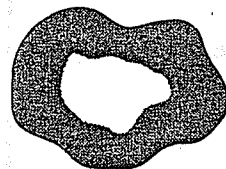
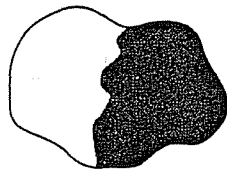
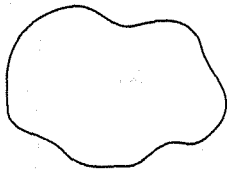


Figure 3. Interspersion of Cowardin classes and upland inclusions.

[illegible]

✓25. For rural areas: What percentage of the wetland's edge is bordered by upland wildlife habitat that is at least 150 feet wide? Brush, woodland, non-farmed agricultural land and range land are considered upland habitat for this question. Actively farmed lands are not considered wildlife habitat. (See Figure 4.)

- a. Greater than 40%.
- b. Between 10% and 40%.
- c. Less than 10%.

✓26. For urban areas: What percentage of the wetland's edge is bordered by a vegetative buffer at least 25 feet wide? A vegetative buffer consists of trees, bushes or vegetation that is not regularly mowed or farmed. (See Figure 5.)

- a. Greater than 40%.
- b. Between 10% and 40%.
- c. Less than 10%.

★ 27. How is the wetland connected to other wetlands? (Look at an aerial photo or map to determine this.)

- a. Connected to other wetlands within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, culvert, canal or lake.
- b. Not connected by surface waters, but other unconnected wetlands lie within a 3-mile radius.
- c. Not connected to other wetlands by surface waters, and no other unconnected wetlands lie within a 3-mile radius.

★ 28. Estimate the area of unvegetated, open water within the wetland.

- a. More than 3 acres.
- b. Greater than 1 acre, up to 3 acres.
- c. Between 0.5 acre and 1 acre.
- d. Less than 0.5 acre.

PAT1 Wetland 1	PAT2 Wetland 2	PAT3 Wetland 3
N/A	N/A	N/A
a	c	a
b	a	a
d	d	d

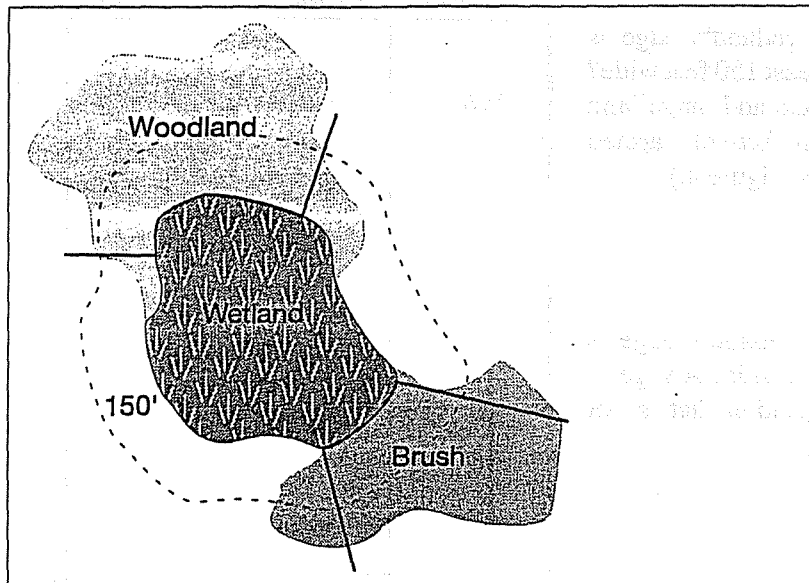


Figure 4. Percent of wetland edge bordered by upland habitat (for Question 25).

The dashed line delineates the area within 150 feet of the wetland; the "woodland" and "brush" areas are upland habitat; and the lines perpendicular to the wetland edge indicate where the upland habitat adjacent to the wetland habitat is at least 150 feet wide. The dark lines (portions of the wetland bordered by upland habitat at least 150 feet wide) make up roughly one-third (between 10% and 40%) of the wetland perimeter.

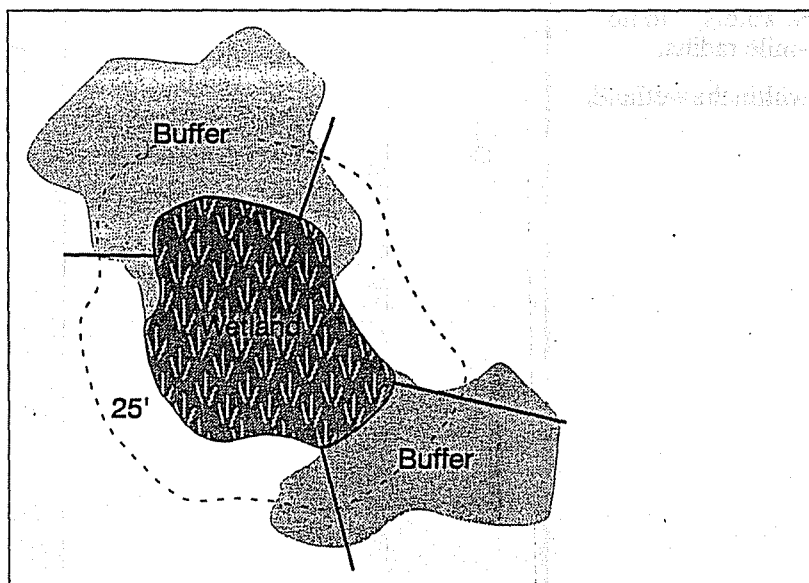


Figure 5. Percent of wetland edge bordered by vegetative buffer (for Question 26).

The dashed line delineates the area within 25 feet of the wetland; the vegetative buffer areas are labeled "buffer"; and the lines perpendicular to the wetland edge indicate where the vegetative buffer adjacent to the wetland habitat is at least 25 feet wide. The dark lines (portions of the wetland bordered by a vegetative buffer at least 25 feet wide) make up roughly one-third (between 10% and 40%) of the wetland perimeter.

Fisheries habitat

29. Are fish present in a stream, lake or pond connected to the wetland.
- Salmon, trout or sensitive species are present at some time during the year.
 - Species not covered in "a" are present at some time during the year.
 - No species are present at any time during the year.

Streams connected to the wetland

Complete this section only if the wetland being assessed has an unimpeded surface water connection to a stream.

- ✓30. What is the physical character of the stream channel? To observe stream channel modifications, look for built rock banks, cement sides, straightened areas or other human-created features.
- The stream is in a natural channel, or modified portions of the stream are returning to a natural channel.
 - Only portions of the stream are modified.
 - The stream is extensively modified or confined in a non-vegetated channel or pipe.
31. What percentage of the stream is shaded by streamside (riparian) vegetation?
- Greater than 75%.
 - Between 50 and 75%.
 - 25% or more, but less than 50%.
 - Less than 25%.
- ✓32. What percentage of the stream contains instream structures such as large woody debris, floating or submerged vegetation, large rocks or boulders?
- Greater than 25%.
 - Between 10% and 25%.
 - Less than 10%.

Lakes or ponds (entire lake or pond and wetland complex)

Complete this section only if the wetland being assessed has a surface water connection to a lake or pond.

33. Does the lake or pond contain areas of deep and shallow water? ("Deep" is defined as more than 6.5 feet deep.)
- Yes.
 - Cannot be determined.
 - No.

PAT 1 Wetland 1	PAT 2 Wetland 2	PAT 3 Wetland 3
N/A	tail to tail c.k. a?	Patt-ck. a
N/A	b	a
	c	b
	c	c
N/A	N/A	N/A

- * ✓34. What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?
- 60% or more.
 - 20% or more, but less than 60%.
 - Less than 20%.
- * ✓35. What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?
- Greater than 25%
 - Between 10 and 25%
 - Less than 10%

Wetland hydrology

- * 36. What is the wetland's **primary** source of water? (Determine in the field or in the office. This may be difficult to determine. If a surface water connection exists—stream, lake, ditch—use it as the primary source. If no surface water connection is present, talk to local natural resource people for hints.)
- Surface flow, including streams and ditches.
 - Precipitation or sheet flow.
 - Groundwater, including springs or seeps.
- * 37. Is there evidence of flooding or ponding during a portion of the growing season? Look for evidence of water fluctuation such as sediment stains on trees, drift lines, surface scour or sediment deposits. Also look at the location of the wetland. Is it in a distinct topographic depression or adjacent to a stream that is known to flood or fluctuate because of storm pulses?
- Yes (describe).
 - Unable to determine or not applicable.
 - No.
- * 38. Is water flow out of the wetland restricted (e.g., beaver dam, concrete structure, undersized culvert)?
- Yes, the outlet is restricted or the wetland has no outlet.
 - Minor restrictions slow down the water (e.g., undersized culvert).
 - No, the outlet has unrestricted flow.

PAT 1 Wetland 1	PAT 2 Wetland 2	PAT 3 Wetland 3
N/A	N/A	N/A
↓	↓	↓
C	C	C
A topog depression w/standing water end of July	a topog depression w/standing water end of July	a topog depression w/standing water end of July
a	C	b

	PAT 1 Wetland 1	PAT 2 Wetland 2	PAT 3 Wetland 3
39. If the primary source of water is surface flow, is the water flow into the wetland restricted?	N/A	N/A	N/A
a. Flow is not restricted, or if blocked, the obstruction can be removed easily.			
b. Permanent blockage to the flow exists but may be breached or a new flow channel created (engineering or earth moving solution).			
c. Flow is restricted and cannot be restored.			
40. Has the stream flow or stream bank been modified by human activities less than 1 mile above the wetland? Modifications include dams, channelizations and levees, and confinement of the stream in a pipe.	N/A	b.	b.
a. Yes.			
b. No.			
Public access to wetland site (select an appropriate area to observe the wetland to answer these questions.)			
41. Is the wetland site open to the public for direct access or observation?	b	b	b
a. Yes, the wetland is open to the public.			
b. Yes, but wetland access is allowed only by permission of the landowner or managing entity.			
c. No, access is not allowed.			
42. Are there visible hazards to the public at the wetland site? (Examples: busy road adjacent to the site, and no buffer or sidewalk exists; steep embankment; and contaminated water.)	b - no access trails	a	c - steep banks. no access trails.
a. No.			
b. One or two visible safety hazards exist (describe).			
c. More than two visible safety hazards exist (describe).			
43. Are there other natural landscape features, such as a stream, lake, pond, forest or agricultural land contiguous or adjacent to the wetland?	a - Patterson Creek near by; forested land	a - tree farm	a - Patterson Ck adjacent or near by
a. Yes. (List type and extent.)			
b. No.			

✓44. Is there existing physical public access to features listed in Question 43? If not, can such access be created easily, or can other habitats be observed from the site? For a stream, pond or lake, access may require dry ground to the water's edge. Stream access could also be at a road crossing, but consider the safety at such locations

- Public access to other habitats exists or can be created easily.
- Public access doesn't exist and can't be created easily, but observation of other features can be made from the site.
- Public access doesn't exist and can't be created easily. In addition, observation of other features can't be made from the site.

* ✓45. Does it appear that access to a viewing spot or wetland edge is available for individuals with limited mobility? (To see whether the site meets ADA requirements, a more thorough examination should be done.)

- Yes.
- No. (List physical barriers.)

✓46. Is there a public access point within 250 feet of the wetland's edge? Access points include parking lots, transit stops, bike lanes, trails and water courses. Maintained means that the area is designated as a car or transit area by the managing entity. Unmaintained would be a road pull-off or other area that people use but is not designated for such use. Describe the type of access.

- Yes, a maintained access point exists (describe).
- Yes, an unmaintained access point exists (describe).
- No access point exists, or the access point is hazardous.

Recreation

✓47. Is the wetland accessible by boat?

- Boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of water.
- Potential to develop boat launching areas or access points exists, or such features are more than 1/2 mile but less than 1 mile from the wetland.
- No boat launching areas or access points exist within 1 mile of the wetland, and potential to develop launching areas or access points is limited.

PAT 1 Wetland 1	PAT 2 Wetland 2	PAT 3 Wetland 3
a	a	c
b - no parking to access surfaces	b - no parking no access surfaces	b - no parking no access surfaces
c	b E end of High St near St. E of 7th	b Pacific St Rowing 5th + 6th
c	c	c

48. Are there trails, viewing areas or other structures that guide user movement to a particular area or areas in or around the wetland?
- Yes, developed or maintained trails or viewing areas exist.
 - Yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat.
 - No trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.
49. Is fishing allowed at the wetland or connected water body? (Contact local Oregon Department of Fish and Wildlife office.) Answer "not applicable" if question 18 was answered "b" or "c," unless question 21 indicates that 10% or more of the wetland's area is covered by open water.
- Yes (either all or part of the year).
 - No.
 - Not applicable.
50. Is hunting allowed at the wetland? (If the wetland is within the city limits, hunting is not allowed. Otherwise, contact the local Oregon Department of Fish and Wildlife office for this information.)
- Yes (either all or part of the year).
 - No.

Aesthetics

51. For **rural areas**, what is the extent of visual contrast with the surrounding landscape? (See Figure 6.)
- Significant contrast with surrounding landscape.
 - Limited contrast with surrounding landscape.
 - Little or no contrast with surrounding landscape.
52. For **urban areas**, what is the visual character of the surrounding area? (See Figure 7.)
- Open space or naturally landscaped areas.
 - Areas landscaped or manipulated by people.
 - Developed with no landscaping.
53. Are there visual detractors at the wetland site such as abandoned cars, litter, shopping carts or other objects that distract the viewer from the wetland?
- Yes.
 - No.
54. If the wetland contains visual detractors, as indicated in question 53, can they be removed easily?
- Yes.
 - No.

PAT 1 Wetland 1	PAT 2 Wetland 2	PAT 3 Wetland 3
c	b	b
c	c	c
b	b	b
N/A	N/A	N/A
a	b	b
c	c	b
N/A	N/A	N/A

Locate the primary viewing area(s) for the following four questions (be sure to indicate the location on the overlay).

✓55. What odors are present at the primary viewing location(s)?

- Natural, pleasant odors only.
- Unpleasant odors such as automobile exhaust or stench from a sewage treatment plant are present at certain times.
- Unpleasant odors are distinct and continuously present.



Figure 6. Visual contrast.

The top part of the figure shows a wetland with significant visual contrast with the surrounding landscape. The bottom part shows a wetland with little or no visual contrast with the surrounding landscape.

PAT 1 Wetland 1	PAT 2 Wetland 2	PAT 3 Wetland 3
Off main SP between 1st & 12th SP 13-1	Between 7th and 9th N of Ocean SP 14-1	South of Pace (see flow) between 5th & 6th SP 10-2
a	a	a

✓56. What noises are audible at the primary viewing location(s)?

- a. Bird and wildlife noises and other naturally occurring sounds.
- b. Some traffic and other similar background sounds are audible in addition to naturally occurring sounds.
- c. Continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds.
- d. Continuous traffic or other intrusive noise is audible, but no naturally occurring sounds are.

✓57. How much of the wetland is visible from the viewing area(s)? Describe the view.

- a. Greater than 50%.
- b. Between 25% and 50%.
- c. Less than 25%.

✓58. How many Cowardin classes are visible from the primary viewing area(s)? (See question 21 for list of Cowardin classes to use.)

- a. More than two.
- b. Two
- c. One

PAT 1 PAT 2 PAT 3
Wetland 1 Wetland 2 Wetland 3

b	c	b
a skunk cabbage PEM opening in upland forest c	a soft-twig PEM in cleared construction area c	b dense herb stratified PEM, some PSC down slope b

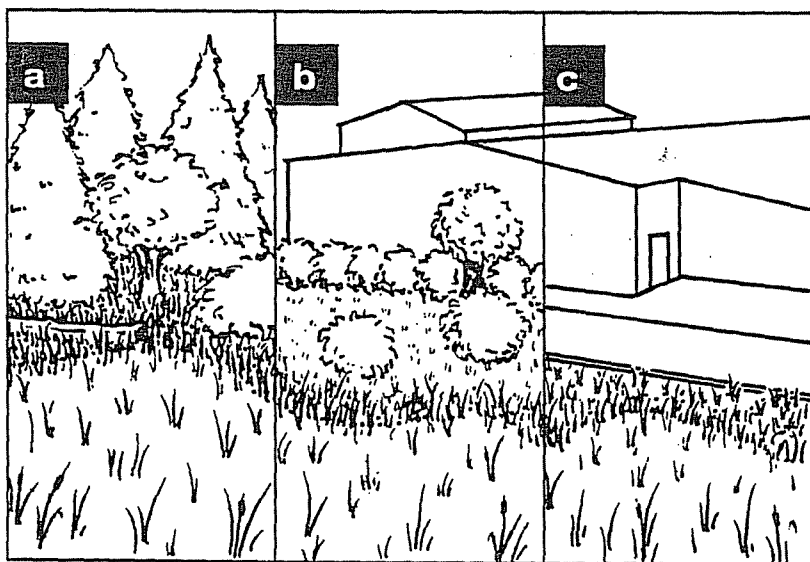


Figure 7. Visual character of urban wetlands.

In keeping with the left part, this figure shows an urban wetland with naturally landscaped areas, areas landscaped by people and with unlandscaped developed areas.

Bay City UGB

Individual wetland sites

Fill out this part of the characterization for each wetland in the assessment area. Some of the information can be gathered in the office; some must be gathered at the site. You may want to do a rough sketch of the site (doesn't have to be to scale) to refer to back in the office.

Wetland structure and relation to surrounding landscape

- ✓ 15. What percentage of the area within 500 feet of the wetland's edge is dedicated to the land uses listed below? (From overlay 2 or in the field.)

It is best to determine the land uses from a recent aerial photo. If an aerial photo is not available, measure 500 feet in the field to get an idea of distance to evaluate. Use the following ranges for your answers for each land-use category:

- Less than 20%.
- Between 20% and 50%.
- Greater than 50%.

- Open Space (includes natural areas, parks and developed recreation areas, but not land designated for Exclusive Forest Use).
- Agriculture (pasture, cropped lands, orchards, range land).
- Exclusive Forest Use lands.
- Developed uses (residential, commercial or industrial—rural and urban).
- Other (list).

- ✓ 16. What is the dominant existing land use within 500 feet of the wetland on the **downstream or down-slope edge** of the wetland? Use the same land-use categories as question 15.

17. What is the wetland's area in acres? (Measure the entire area of contiguous wetland, not just the portion within the assessment area. Use the dimensions of the wetland as outlined on the base map.)

- Greater than 5 acres.
- Between 0.5 acres and 5 acres.
- Less than 0.5 acres.

✓ Questions preceded by a check mark can be completed in the field.

LAR 1 Wetland 1	MCC1 Wetland 2	MCC2 Wetland 3
There is an old dump upstream - end of corner of logged area.		
1 = c 4 = b 5 = a (estuary)	4 = c 5 = a (estuary)	4 = c 5 = b (sewage lagoon; estuary)
5	4	5
b	b	b

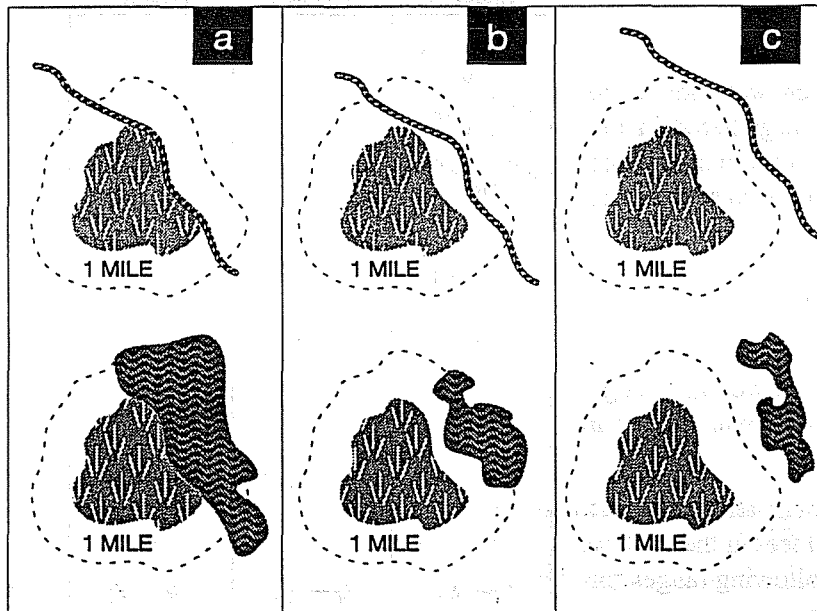


Figure 2. Connectivity to streams, lakes and ponds.

The lightly shaded area represents a wetland, the darkly shaded area represents a lake or pond and the dark line represents a stream. Part "a" shows the wetland connected to a stream, lake or pond, part "b" shows a stream, lake or pond within 1 mile but no surface connection, and part "c" shows no stream, lake or pond within 1 mile and no surface connection.

18. How is the wetland connected to another body of water, such as a stream, lake or pond? (See Figure 2.)
- The wetland is connected by surface water to another body of water. This may be by a culvert, irrigation ditch, intermittent stream or perennial stream.
 - No surface-water connection exists to another body of water, but other bodies of water lie within 1 mile of the wetland.
 - No surface-water connection exists to another body of water, and no other bodies of water lie within 1 mile of the wetland.
19. Is all or part of the wetland located within the 100-year floodplain (use floodplain maps to determine) or within an enclosed basin? An enclosed basin has no inlet or outlet.
- Yes.
 - No.

LAR 1 Wetland 1	MCC 1 Wetland 2	MCC 2 Wetland 3
a	a	a
b	a	a

20. What percentage of the area within 500 feet of the wetland's edge is **zoned** for each of the land uses listed below?

Use the following ranges for your answers:

- Less than 20%
 - Between 20% and 50%
 - Greater than 50%.
- Open Space (includes natural areas, parks and developed recreation areas, but not lands zoned for Exclusive Forest Use).
 - Agriculture (pasture, cropped lands, orchards, range land).
 - Exclusive Forest Use lands.
 - Developed uses (residential, commercial, industrial).
 - Other (list).

Wetland habitat

21. What percentage of the wetland's area is covered by the following Cowardin wetland classes? (Cowardin wetland classes refer to a classification of wetland type by vegetation cover. See Appendix D.) Only list those that compose 10% or more of the overall wetland.

The percentages can be estimated in the field or from aerial photographs. Use the following categories for your answers:

- Between 70% and 100%.
 - 50% or more, but less than 70%.
 - 20% or more, but less than 50%.
 - 10% or more, but less than 20%.
- Open water (deep water habitat, greater than or equal to 6.6 feet or 2 meters).
 - Emergent (includes floating aquatics—herbaceous plants that can tolerate flooding and living in wet soils).
 - Scrub-shrub (woody vegetation under 20 feet tall).
 - Forested (woody vegetation 20 feet or taller).

22. For urban areas, how many wetland plant species are present? (You need not list the species name.)

- More than 5 plant species.
- Between 2 and 5 plant species.
- 1 plant species (monotypic).

23. What is the dominant wetland vegetation cover type?

- Woody vegetation (forested and scrub-shrub).
- Emergent vegetation and ponding, or open water only.
- Emergent vegetation only or wet meadow.

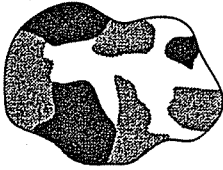
LAR1 Wetland 1	MCC1 Wetland 2	MCC2 Wetland 3
3 = b 4 = b 5 = a (estuary)	4 = c 5 = a (estuary)	4 = c 5 = b (sewage lagoon; estuary)
4 = a (2 = L10)	2 = c 3 = a	2 = a 3 = d
a	a	a
a	a	c

- ✓ 24. Refer to the diagrams in Figure 3 and select the one that most closely resembles the interspersions of Cowardin wetland classes and, if present, upland inclusions. (An upland inclusion is an island or an upland area surrounded on three sides by wetland.).

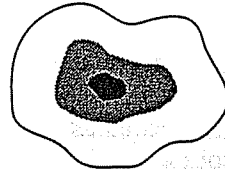
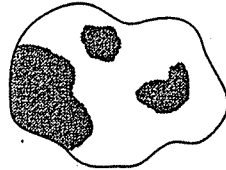
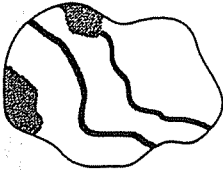
Wetlands composed of only one wetland class or with two wetland classes and a simple pattern have low interspersions. Wetland and upland complexes that have at least two wetland classes and a complex pattern have a moderate interspersions pattern. Wetlands with two or more wetland classes or upland inclusions with a complex pattern and lots of edge have a high interspersions pattern. If the wetland you are observing does not reflect any of the diagrams, use the above guidance to determine the complexity of the interspersions pattern and draw a sketch of the wetland.

- High.
- Moderate.
- Low.

High Interspersion (a)



Moderate Interspersion (b)



Low Interspersion (c)

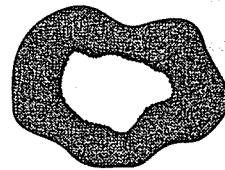
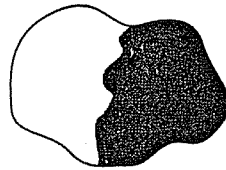
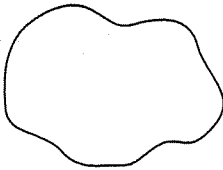


Figure 3. Interspersion of Cowardin classes and upland inclusions.

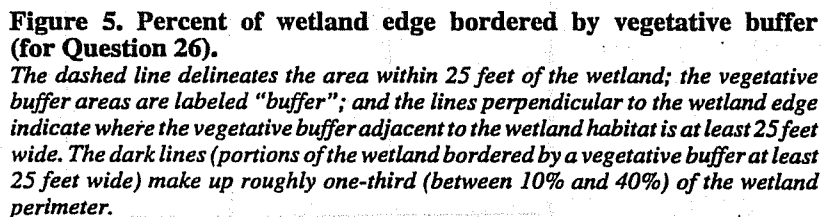
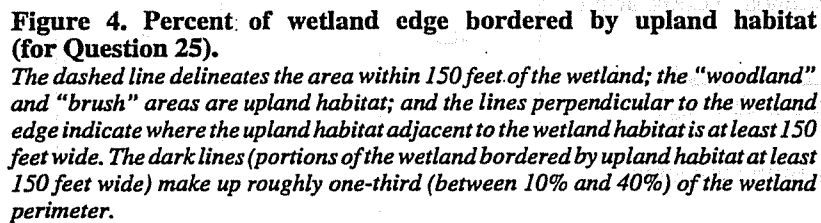
LAR 1 MCC 1 MCC 2
Wetland 1 Wetland 2 Wetland 3

C

C

C

	LAR 1 Wetland 1	MCC 1 Wetland 2	MCC 2 Wetland 3
✓25. For rural areas: What percentage of the wetland's edge is bordered by upland wildlife habitat that is at least 150 feet wide? Brush, woodland, non-farmed agricultural land and range land are considered upland habitat for this question. Actively farmed lands are not considered wildlife habitat. (See Figure 4.)	N/A	N/A	N/A
a. Greater than 40%.			
b. Between 10% and 40%.			
c. Less than 10%.			
✗ ✓26. For urban areas: What percentage of the wetland's edge is bordered by a vegetative buffer at least 25 feet wide? A vegetative buffer consists of trees, bushes or vegetation that is not regularly mowed or farmed. (See Figure 5.)	a	a	a
a. Greater than 40%.			
b. Between 10% and 40%.			
c. Less than 10%.			
✗ 27. How is the wetland connected to other wetlands? (Look at an aerial photo or map to determine this.)	a	a	a
a. Connected to other wetlands within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, culvert, canal or lake.			
b. Not connected by surface waters, but other unconnected wetlands lie within a 3-mile radius.			
c. Not connected to other wetlands by surface waters, and no other unconnected wetlands lie within a 3-mile radius.			
✗ 28. Estimate the area of unvegetated, open water within the wetland.	a	1c	1c
a. More than 3 acres.			
b. Greater than 1 acre, up to 3 acres.			
c. Between 0.5 acre and 1 acre.			
d. Less than 0.5 acre.			
	adjacent to Harrison Cove		



Fisheries habitat

29. Are fish present in a stream, lake or pond connected to the wetland.
- Salmon, trout or sensitive species are present at some time during the year.
 - Species not covered in "a" are present at some time during the year.
 - No species are present at any time during the year.

Streams connected to the wetland

Complete this section only if the wetland being assessed has an unimpeded surface water connection to a stream.

- ✓30. What is the physical character of the stream channel? To observe stream channel modifications, look for built rock banks, cement sides, straightened areas or other human-created features.
- The stream is in a natural channel, or modified portions of the stream are returning to a natural channel.
 - Only portions of the stream are modified.
 - The stream is extensively modified or confined in a non-vegetated channel or pipe.
- ✓31. What percentage of the stream is shaded by streamside (riparian) vegetation?
- Greater than 75%.
 - Between 50 and 75%.
 - 25% or more, but less than 50%.
 - Less than 25%.
- ✓32. What percentage of the stream contains instream structures such as large woody debris, floating or submerged vegetation, large rocks or boulders?
- Greater than 25%.
 - Between 10% and 25%.
 - Less than 10%.

Lakes or ponds (entire lake or pond and wetland complex)

Complete this section only if the wetland being assessed has a surface water connection to a lake or pond.

33. Does the lake or pond contain areas of deep and shallow water? ("Deep" is defined as more than 6.5 feet deep.)
- Yes.
 - Cannot be determined.
 - No.

LAR 1 Wetland 1	MCC 1 Wetland 2	MCC 2 Wetland 3
Larson Ch a	b or c	connected to Bay a
a	b at the E wetland.	N/A
a	b	
b	c	
		✓
N/A	N/A	Till. Bay a

- * ✓34. What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?
- 60% or more.
 - 20% or more, but less than 60%.
 - Less than 20%.
- * ✓35. What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?
- Greater than 25%
 - Between 10 and 25%
 - Less than 10%

Wetland hydrology

36. What is the wetland's **primary** source of water? (Determine in the field or in the office. This may be difficult to determine. If a surface water connection exists—stream, lake, ditch—use it as the primary source. If no surface water connection is present, talk to local natural resource people for hints.)
- Surface flow, including streams and ditches.
 - Precipitation or sheet flow.
 - Groundwater, including springs or seeps.
37. Is there evidence of flooding or ponding during a portion of the growing season? Look for evidence of water fluctuation such as sediment stains on trees, drift lines, surface scour or sediment deposits. Also look at the location of the wetland. Is it in a distinct topographic depression or adjacent to a stream that is known to flood or fluctuate because of storm pulses?
- Yes (describe).
 - Unable to determine or not applicable.
 - No.
38. Is water flow out of the wetland restricted (e.g., beaver dam, concrete structure, undersized culvert)?
- Yes, the outlet is restricted or the wetland has no outlet.
 - Minor restrictions slow down the water (e.g., undersized culvert).
 - No, the outlet has unrestricted flow.

LAR1 Wetland 1	MCC1 Wetland 2	MCC2 Wetland 3
N/A ↓	N/A ↓	C
a	a	a
a - sed. dep.	a - topog. location on stream	a - open to Till. Bay
C	b	C

LAR 1 MCC 1 MCC 2
Wetland 1 Wetland 2 Wetland 3

✓ 39. If the primary source of water is surface flow, is the water flow into the wetland restricted?

- a. Flow is not restricted, or if blocked, the obstruction can be removed easily.
- b. Permanent blockage to the flow exists but may be breached or a new flow channel created (engineering or earth moving solution).
- c. Flow is restricted and cannot be restored.

✓ 40. Has the stream flow or stream bank been modified by human activities less than 1 mile above the wetland? Modifications include dams, channelizations and levees, and confinement of the stream in a pipe.

- a. Yes.
- b. No.

Public access to wetland site (select an appropriate area to observe the wetland to answer these questions.)

✓ 41. Is the wetland site open to the public for direct access or observation?

- a. Yes, the wetland is open to the public.
- b. Yes, but wetland access is allowed only by permission of the landowner or managing entity.
- c. No, access is not allowed.

✓ 42. Are there visible hazards to the public at the wetland site? (Examples: busy road adjacent to the site, and no buffer or sidewalk exists; steep embankment; and contaminated water.)

- a. No.
- b. One or two visible safety hazards exist (describe).
- c. More than two visible safety hazards exist (describe).

✓ 43. Are there other natural landscape features, such as a stream, lake, pond, forest or agricultural land contiguous or adjacent to the wetland?

- a. Yes. (List type and extent.)
- b. No.

a	a	a
b-	a	b
b	b	c
b- no trails, sidewalks, etc; steep side.	b- no buffer or sidewalk roads & RR adj.	c- sewage lagoon, no buffers trails, etc.
a- Larson Cove; forests	a (spruce) Tillamook Co.	b

✓44. Is there existing physical public access to features listed in Question 43? If not, can such access be created easily, or can other habitats be observed from the site? For a stream, pond or lake, access may require dry ground to the water's edge. Stream access could also be at a road crossing, but consider the safety at such locations

- Public access to other habitats exists or can be created easily.
- Public access doesn't exist and can't be created easily, but observation of other features can be made from the site.
- Public access doesn't exist and can't be created easily. In addition, observation of other features can't be made from the site.

* ✓45. Does it appear that access to a viewing spot or wetland edge is available for individuals with limited mobility? (To see whether the site meets ADA requirements, a more thorough examination should be done.)

- Yes.
- No. (List physical barriers.)

dd 47 ✓46. Is there a public access point within 250 feet of the wetland's edge? Access points include parking lots, transit stops, bike lanes, trails and water courses. Maintained means that the area is designated as a car or transit area by the managing entity. Unmaintained would be a road pull-off or other area that people use but is not designated for such use. Describe the type of access.

- Yes, a maintained access point exists (describe).
- Yes, an unmaintained access point exists (describe).
- No access point exists, or the access point is hazardous.

Recreation

dd 48 ✓47. Is the wetland accessible by boat?

- Boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of water.
- Potential to develop boat launching areas or access points exists, or such features are more than 1/2 mile but less than 1 mile from the wetland.
- No boat launching areas or access points exist within 1 mile of the wetland, and potential to develop launching areas or access points is limited.

LAR1 MCC1 MCC2
Wetland 1 Wetland 2 Wetland 3

a - forest land C - Lake or Cove	a	C
b - undeveloped, no hard surfaces or access	b - undeveloped, no hard surfaces	B - no access
b old logging road - to upstream crossing	b pull off by 101/RR (W) & The Crisp St (E)	C
C	C	C

48. Are there trails, viewing areas or other structures that guide user movement to a particular area or areas in or around the wetland?
- Yes, developed or maintained trails or viewing areas exist.
 - Yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat.
 - No trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49. Is fishing allowed at the wetland or connected water body? (Contact local Oregon Department of Fish and Wildlife office.) Answer "not applicable" if question 18 was answered "b" or "c," unless question 21 indicates that 10% or more of the wetland's area is covered by open water.

- Yes (either all or part of the year).
- No.
- Not applicable.

50. Is hunting allowed at the wetland? (If the wetland is within the city limits, hunting is not allowed. Otherwise, contact the local Oregon Department of Fish and Wildlife office for this information.)

- Yes (either all or part of the year).
- No.

Aesthetics

51. For rural areas, what is the extent of visual contrast with the surrounding landscape? (See Figure 6.)

- Significant contrast with surrounding landscape.
- Limited contrast with surrounding landscape.
- Little or no contrast with surrounding landscape.

52. For urban areas, what is the visual character of the surrounding area? (See Figure 7.)

- Open space or naturally landscaped areas.
- Areas landscaped or manipulated by people.
- Developed with no landscaping.

53. Are there visual detractors at the wetland site such as abandoned cars, litter, shopping carts or other objects that distract the viewer from the wetland?

- Yes.
- No.

54. If the wetland contains visual detractors, as indicated in question 53, can they be removed easily?

- Yes.
- No.

LARI MCC1 MCC2
Wetland 1 Wetland 2 Wetland 3

b	b	c
b	a- Tillamook Bay	b
a- if outside city limits	b	b
N/A	N/A	N/A
a	a	a
b	a	a
N/A	a	b

Locate the primary viewing area(s) for the following four questions (be sure to indicate the location on the overlay).

- ✓55. What odors are present at the primary viewing location(s)?
- Natural, pleasant odors only.
 - Unpleasant odors such as automobile exhaust or stench from a sewage treatment plant are present at certain times.
 - Unpleasant odors are distinct and continuously present.



Figure 6. Visual contrast.

The top part of the figure shows a wetland with significant visual contrast with the surrounding landscape. The bottom part shows a wetland with little or no visual contrast with the surrounding landscape.

LAR1	MCC1	MCC2
Wetland 1	Wetland 2	Wetland 3
at SP 15, near RR crossing a	SP 58-1 at McCoy & Hatten a	SP 50-1, E of Sewage Lagoon b

- ✓56. What noises are audible at the primary viewing location(s)?
- Bird and wildlife noises and other naturally occurring sounds.
 - Some traffic and other similar background sounds are audible in addition to naturally occurring sounds.
 - Continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds.
 - Continuous traffic or other intrusive noise is audible, but no naturally occurring sounds are.

- ✓57. How much of the wetland is visible from the viewing area(s)? Describe the view.
- Greater than 50%.
 - Between 25% and 50%.
 - Less than 25%.

- ✓58. How many Cowardin classes are visible from the primary viewing area(s)? (See question 21 for list of Cowardin classes to use.)
- More than two.
 - Two
 - One

LAR 1 MCC 1 MCC 2
Wetland 1 Wetland 2 Wetland 3

b	b	c
c Alder/skunk catnip PFO along creek w/ LYAM tick	b Willow/ sedge PSS	a Silverweed/ sedge PEM Swale w/ PSS on edge
b PFO & PEM	c PSS	b PEM & PSS

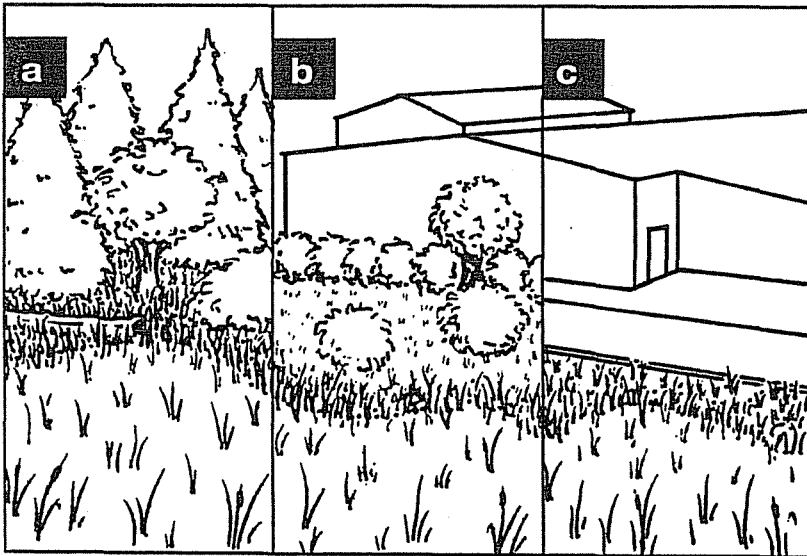


Figure 7. Visual character of urban wetlands.

Continuing with the left part, this figure shows an urban wetland with naturally landscaped areas, areas landscaped by people and with unlandscaped developed areas.

Bay City UGB

MCC 3 MCC 4 MCC 5
Wetland 1 Wetland 2 Wetland 3

Wetland structure and relation to surrounding landscape

- It is best to determine the land uses from a recent aerial photo. If an aerial photo is not available, measure 500 feet in the field to get an idea of distance to evaluate. Use the following ranges for your answers for each land-use category:

- Less than 20%.
- Between 20% and 50%.
- Greater than 50%.

1. Open Space (includes natural areas, parks and developed recreation areas, but not land designated for Exclusive Forest Use).
2. Agriculture (pasture, cropped lands, orchards, range land).
3. Exclusive Forest Use lands.
4. Developed uses (residential, commercial or industrial—rural and urban).
5. Other (list).

- ✓16. What is the dominant existing land use within 500 feet of the wetland on the downstream or down-slope edge of the wetland? Use the same land-use categories as question 15.

17. What is the wetland's area in acres? (Measure the entire area of contiguous wetland, not just the portion within the assessment area. Use the dimensions of the wetland as outlined on the base map.)

- Greater than 5 acres.
- Between 0.5 acres and 5 acres.
- Less than 0.5 acres.

✓ Questions preceded by a check mark can be completed in the field.

$1 = b$ $4 = c$	$1 = b$ $4 = c$	$2 = c$ $4 = b$
1	1 (Till. Bay)	2
b	a	b

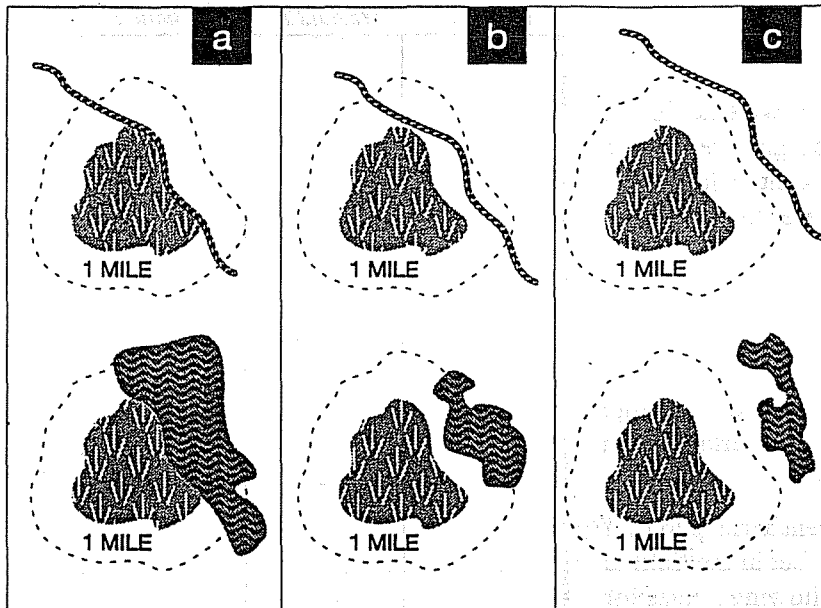


Figure 2. Connectivity to streams, lakes and ponds.

The lightly shaded area represents a wetland, the darkly shaded area represents a lake or pond and the dark line represents a stream. Part "a" shows the wetland connected to a stream, lake or pond, part "b" shows a stream, lake or pond within 1 mile but no surface connection, and part "c" shows no stream, lake or pond within 1 mile and no surface connection.

18. How is the wetland connected to another body of water, such as a stream, lake or pond? (See Figure 2.)
 - a. The wetland is connected by surface water to another body of water. This may be by a culvert, irrigation ditch, intermittent stream or perennial stream.
 - b. No surface-water connection exists to another body of water, but other bodies of water lie within 1 mile of the wetland.
 - c. No surface-water connection exists to another body of water, and no other bodies of water lie within 1 mile of the wetland.
19. Is all or part of the wetland located within the 100-year floodplain (use floodplain maps to determine) or within an enclosed basin? An enclosed basin has no inlet or outlet.
 - a. Yes.
 - b. No.

MCC 3	MCC 4	MCC 5
Wetland 1	Wetland 2	Wetland 3
a	a	a
a	a	b

20. What percentage of the area within 500 feet of the wetland's edge is zoned for each of the land uses listed below?

Use the following ranges for your answers:

- Less than 20%
 - Between 20% and 50%
 - Greater than 50%.
- Open Space (includes natural areas, parks and developed recreation areas, but not lands zoned for Exclusive Forest Use).
 - Agriculture (pasture, cropped lands, orchards, range land).
 - Exclusive Forest Use lands.
 - Developed uses (residential, commercial, industrial).
 - Other (list).

MCC3 MCC4 MCC5
Wetland 1 Wetland 2 Wetland 3

7 = b 1 = b 4 = C
4 = C 4 = C

21 ^{out}
Wetland habitat

21. What percentage of the wetland's area is covered by the following Cowardin wetland classes? (Cowardin wetland classes refer to a classification of wetland type by vegetation cover. See Appendix D.) Only list those that compose 10% or more of the overall wetland.

The percentages can be estimated in the field or from aerial photographs. Use the following categories for your answers:

- Between 70% and 100%.
 - 50% or more, but less than 70%.
 - 20% or more, but less than 50%.
 - 10% or more, but less than 20%.
- Open water (deep water habitat, greater than or equal to 6.6 feet or 2 meters).
 - Emergent (includes floating aquatics—herbaceous plants that can tolerate flooding and living in wet soils).
 - Scrub-shrub (woody vegetation under 20 feet tall).
 - Forested (woody vegetation 20 feet or taller).

22. For urban areas, how many wetland plant species are present? (You need not list the species name.)

- More than 5 plant species.
- Between 2 and 5 plant species.
- 1 plant species (monotypic).

23. What is the dominant wetland vegetation cover type?

- Woody vegetation (forested and scrub-shrub).
- Emergent vegetation and ponding, or open water only.
- Emergent vegetation only or wet meadow.

2 = a

Full Bay
↑
1 = C

2 = a

2 = a

a

a

a

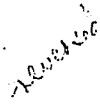
C

C

C

12/24/26

- High.
- Moderate.
- Low.

[illegible]

✓25. For rural areas: What percentage of the wetland's edge is bordered by upland wildlife habitat that is at least 150 feet wide? Brush, woodland, non-farmed agricultural land and range land are considered upland habitat for this question. Actively farmed lands are not considered wildlife habitat. (See Figure 4.)

- a. Greater than 40%.
- b. Between 10% and 40%.
- c. Less than 10%.

✓26. For urban areas: What percentage of the wetland's edge is bordered by a vegetative buffer at least 25 feet wide? A vegetative buffer consists of trees, bushes or vegetation that is not regularly mowed or farmed. (See Figure 5.)

- a. Greater than 40%.
- b. Between 10% and 40%.
- c. Less than 10%.

✓ 27. How is the wetland connected to other wetlands? (Look at an aerial photo or map to determine this.)

- a. Connected to other wetlands within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, culvert, canal or lake.
- b. Not connected by surface waters, but other unconnected wetlands lie within a 3-mile radius.
- c. Not connected to other wetlands by surface waters, and no other unconnected wetlands lie within a 3-mile radius.

★ 28. Estimate the area of unvegetated, open water within the wetland.

- a. More than 3 acres.
- b. Greater than 1 acre, up to 3 acres.
- c. Between 0.5 acre and 1 acre.
- d. Less than 0.5 acre.

MCC3 Wetland 1	MCC4 Wetland 2	MCC5 Wetland 3
N/A	N/A	N/A
a	a	a
a	a	a
d	a adjacent to Till. Bay	d

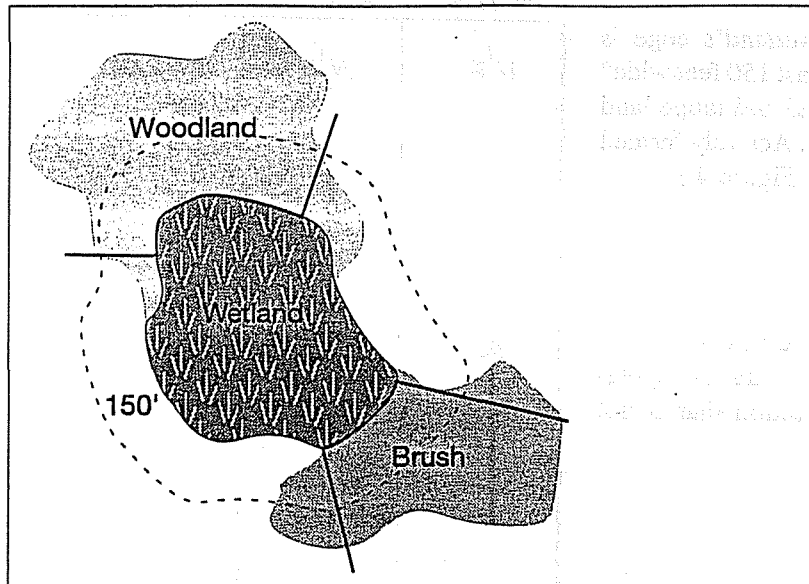


Figure 4. Percent of wetland edge bordered by upland habitat (for Question 25).

The dashed line delineates the area within 150 feet of the wetland; the "woodland" and "brush" areas are upland habitat; and the lines perpendicular to the wetland edge indicate where the upland habitat adjacent to the wetland habitat is at least 150 feet wide. The dark lines (portions of the wetland bordered by upland habitat at least 150 feet wide) make up roughly one-third (between 10% and 40%) of the wetland perimeter.

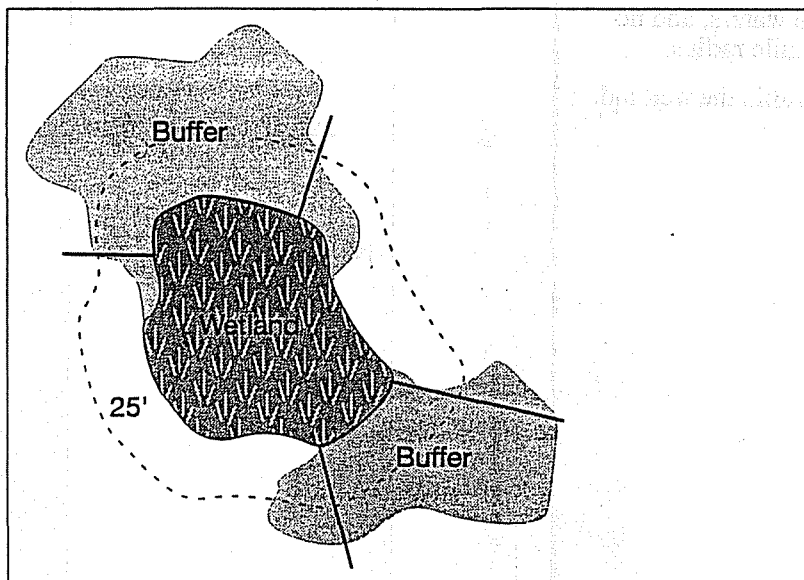


Figure 5. Percent of wetland edge bordered by vegetative buffer (for Question 26).

The dashed line delineates the area within 25 feet of the wetland; the vegetative buffer areas are labeled "buffer"; and the lines perpendicular to the wetland edge indicate where the vegetative buffer adjacent to the wetland habitat is at least 25 feet wide. The dark lines (portions of the wetland bordered by a vegetative buffer at least 25 feet wide) make up roughly one-third (between 10% and 40%) of the wetland perimeter.

MCC3
Wetland 1

MCC4
Wetland 2

MCC5
Wetland 3

c. No species are present at any time during the year.

Complete this section only if the wetland being assessed has an unimpeded surface water connection to a stream.

- d. Less than 25%.

- c. Less than 10%.

Complete this section only if the wetland being assessed has a surface water connection to a lake or pond.

- c. No.

40 Special interest & characterization

MCC3 MCC4 MCC5
Wetland 1 Wetland 2 Wetland 3

- * ✓34. What percentage of the shoreline is shaded at the water's edge by forested or scrub-shrub vegetation?
- 60% or more.
 - 20% or more, but less than 60%.
 - Less than 20%.
- * ✓35. What percentage of the wetland complex contains cover objects such as submerged logs, floating or submerged vegetation, large rocks or boulders?
- Greater than 25%
 - Between 10 and 25%
 - Less than 10%

Wetland hydrology

- * 36. What is the wetland's **primary** source of water? (Determine in the field or in the office. This may be difficult to determine. If a surface water connection exists—stream, lake, ditch—use it as the primary source. If no surface water connection is present, talk to local natural resource people for hints.)
- Surface flow, including streams and ditches.
 - Precipitation or sheet flow.
 - Groundwater, including springs or seeps.
- * 37. Is there evidence of flooding or ponding during a portion of the growing season? Look for evidence of water fluctuation such as sediment stains on trees, drift lines, surface scour or sediment deposits. Also look at the location of the wetland. Is it in a distinct topographic depression or adjacent to a stream that is known to flood or fluctuate because of storm pulses?
- Yes (describe).
 - Unable to determine or not applicable.
 - No.
- * 38. Is water flow out of the wetland restricted (e.g., beaver dam, concrete structure, undersized culvert)?
- Yes, the outlet is restricted or the wetland has no outlet.
 - Minor restrictions slow down the water (e.g., undersized culvert).
 - No, the outlet has unrestricted flow.

N/A	N/A	N/A
↓	↓	↓
b	a (tidal)	a (some c)
a - mud flats	a - tidal channels	b - topog depressi along stream but narrow & small near headwaters some spring
b	c	c

	MCC 3 Wetland 1	MCC 4 Wetland 2	MCC 5 Wetland 3
✓ 39. If the primary source of water is surface flow, is the water flow into the wetland restricted?	N/A	a	a
a. Flow is not restricted, or if blocked, the obstruction can be removed easily.			
b. Permanent blockage to the flow exists but may be breached or a new flow channel created (engineering or earth moving solution).			
c. Flow is restricted and cannot be restored.			
✓ 40. Has the stream flow or stream bank been modified by human activities less than 1 mile above the wetland? Modifications include dams, channelizations and levees, and confinement of the stream in a pipe.	a	a	a
a. Yes.			
b. No.			
Public access to wetland site (select an appropriate area to observe the wetland to answer these questions.)			
✓ 41. Is the wetland site open to the public for direct access or observation?	b	b	b
a. Yes, the wetland is open to the public.			
b. Yes, but wetland access is allowed only by permission of the landowner or managing entity.			
c. No, access is not allowed.			
✓ 42. Are there visible hazards to the public at the wetland site? (Examples: busy road adjacent to the site, and no buffer or sidewalk exists; steep embankment; and contaminated water.)	b busy road, no parking	b busy road, no parking	c - steep topog. no trail or sidewalk; road w/ no parking
a. No.			
b. One or two visible safety hazards exist (describe).			
c. More than two visible safety hazards exist (describe).			
✓ 43. Are there other natural landscape features, such as a stream, lake, pond, forest or agricultural land contiguous or adjacent to the wetland?	a - forest; wetland MCC 4	a - Till. Bar; wetland MCC 3	a - agric. land; small stream; forested area
a. Yes. (List type and extent.)			
b. No.			

✓44. Is there existing physical public access to features listed in Question 43? If not, can such access be created easily, or can other habitats be observed from the site? For a stream, pond or lake, access may require dry ground to the water's edge. Stream access could also be at a road crossing, but consider the safety at such locations

- Public access to other habitats exists or can be created easily.
- Public access doesn't exist and can't be created easily, but observation of other features can be made from the site.
- Public access doesn't exist and can't be created easily. In addition, observation of other features can't be made from the site.

* ✓45. Does it appear that access to a viewing spot or wetland edge is available for individuals with limited mobility? (To see whether the site meets ADA requirements, a more thorough examination should be done.)

- Yes.
- No. (List physical barriers.)

old 47

✓46. Is there a public access point within 250 feet of the wetland's edge? Access points include parking lots, transit stops, bike lanes, trails and water courses. Maintained means that the area is designated as a car or transit area by the managing entity. Unmaintained would be a road pull-off or other area that people use but is not designated for such use. Describe the type of access.

- Yes, a maintained access point exists (describe).
- Yes, an unmaintained access point exists (describe).
- No access point exists, or the access point is hazardous.

Recreation

old 48

✓47. Is the wetland accessible by boat?

- Boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of water.
- Potential to develop boat launching areas or access points exists, or such features are more than 1/2 mile but less than 1 mile from the wetland.
- No boat launching areas or access points exist within 1 mile of the wetland, and potential to develop launching areas or access points is limited.

MCC3 Wetland 1	MCC4 Wetland 2	MCC5 Wetland 3
a	a	b
b - no parking or flat surface	b - no parking or flat surface	b - no parking or flat surface steep topog
c	c	c
N/A	c	N/A

MCC 3 MCC 4 MCC 5
Wetland 1 Wetland 2 Wetland 3

48. Are there trails, viewing areas or other structures that guide user movement to a particular area or areas in or around the wetland?
- Yes, developed or maintained trails or viewing areas exist.
 - Yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat.
 - No trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.

49. Is fishing allowed at the wetland or connected water body? (Contact local Oregon Department of Fish and Wildlife office.) Answer "not applicable" if question 18 was answered "b" or "c," unless question 21 indicates that 10% or more of the wetland's area is covered by open water.

- Yes (either all or part of the year).
- No.
- Not applicable:

50. Is hunting allowed at the wetland? (If the wetland is within the city limits, hunting is not allowed. Otherwise, contact the local Oregon Department of Fish and Wildlife office for this information.)

- Yes (either all or part of the year).
- No.

Aesthetics

51. For rural areas, what is the extent of visual contrast with the surrounding landscape? (See Figure 6.)

- Significant contrast with surrounding landscape.
- Limited contrast with surrounding landscape.
- Little or no contrast with surrounding landscape.

52. For urban areas, what is the visual character of the surrounding area? (See Figure 7.)

- Open space or naturally landscaped areas.
- Areas landscaped or manipulated by people.
- Developed with no landscaping.

53. Are there visual detractors at the wetland site such as abandoned cars, litter, shopping carts or other objects that distract the viewer from the wetland?

- Yes.
- No.

54. If the wetland contains visual detractors, as indicated in question 53, can they be removed easily?

- Yes.
- No.

b	b	c
c	b	b
b	b	b
N/A	N/A	N/A
a	a	a
b	b	a
N/A	N/A	a

Locate the primary viewing area(s) for the following four questions (be sure to indicate the location on the overlay).

✓55. What odors are present at the primary viewing location(s)?

- Natural, pleasant odors only.
- Unpleasant odors such as automobile exhaust or stench from a sewage treatment plant are present at certain times.
- Unpleasant odors are distinct and continuously present.



Figure 6. Visual contrast.

The top part of the figure shows a wetland with significant visual contrast with the surrounding landscape. The bottom part shows a wetland with little or no visual contrast with the surrounding landscape.

MCC 3 Wetland 1	MCC 4 Wetland 2	MCC 5 Wetland 3
Elliot St. near SP 51-2 b	Elliot St. near SP 52-1 b	SP 61 b

56. What noises are audible at the primary viewing location(s)?

- Bird and wildlife noises and other naturally occurring sounds.
- Some traffic and other similar background sounds are audible in addition to naturally occurring sounds.
- Continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds.
- Continuous traffic or other intrusive noise is audible, but no naturally occurring sounds are.

57. How much of the wetland is visible from the viewing area(s)?

Describe the view.

- Greater than 50%.
- Between 25% and 50%.
- Less than 25%.

58. How many Cowardin classes are visible from the primary viewing area(s)? (See question 21 for list of Cowardin classes to use.)

- More than two.
- Two
- One

MCC 3

Wetland 1

MCC 4

Wetland 2

MCC 5

Wetland 3

b	b	b
a Silverweed/ Sagegrass PEM meadow	a Tufted hair- grass tidal wet prairie; Till. Bay	b Buttercup/ halrush PEM in stream sedge
c	b	c

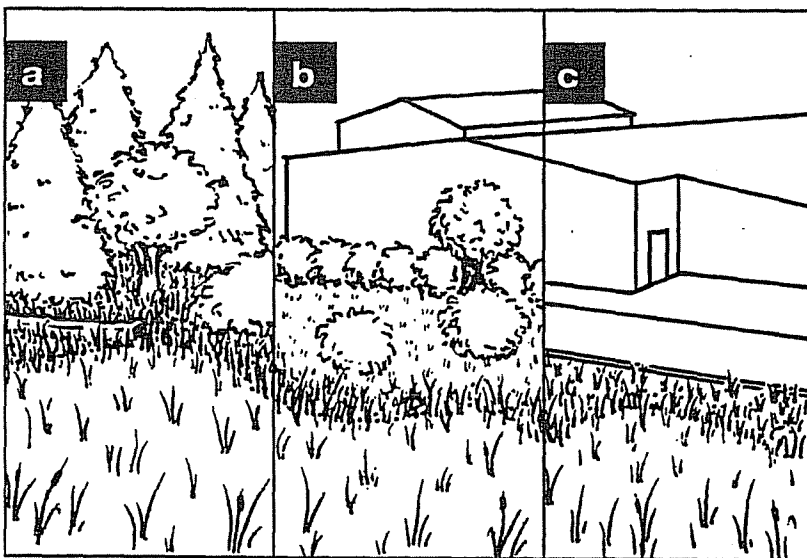


Figure 7. Visual character of urban wetlands.

Beginning with the left part, this figure shows an urban wetland with naturally landscaped areas, areas landscaped by people and with unlandscaped developed areas.

Bay City UGB

PAT4

Wetland 1

Wetland 2

Wetland 3

Individual wetland sites

Fill out this part of the characterization for each wetland in the assessment area. Some of the information can be gathered in the office; some must be gathered at the site. You may want to do a rough sketch of the site (doesn't have to be to scale) to refer to back in the office.

Wetland structure and relation to surrounding landscape

- ✓ 15. What percentage of the area within 500 feet of the wetland's edge is dedicated to the land uses listed below? (From overlay 2 or in the field.)

It is best to determine the land uses from a recent aerial photo. If an aerial photo is not available, measure 500 feet in the field to get an idea of distance to evaluate. Use the following ranges for your answers for each land-use category:

- Less than 20%.
- Between 20% and 50%.
- Greater than 50%.

- Open Space (includes natural areas, parks and developed recreation areas, but not land designated for Exclusive Forest Use).
- Agriculture (pasture, cropped lands, orchards, range land).
- Exclusive Forest Use lands.
- Developed uses (residential, commercial or industrial—rural and urban).
- Other (list).

- ✗ 16. What is the dominant existing land use within 500 feet of the wetland on the **downstream or down-slope edge** of the wetland? Use the same land-use categories as question 15.

17. What is the wetland's area in acres? (Measure the entire area of contiguous wetland, not just the portion within the assessment area. Use the dimensions of the wetland as outlined on the base map.)
- Greater than 5 acres.
 - Between 0.5 acres and 5 acres.
 - Less than 0.5 acres.

1 = a

4 = c

5 = b

(Till. Bay;
Dredge material
disposal)

4

b

✓ Questions preceded by a check mark can be completed in the field.

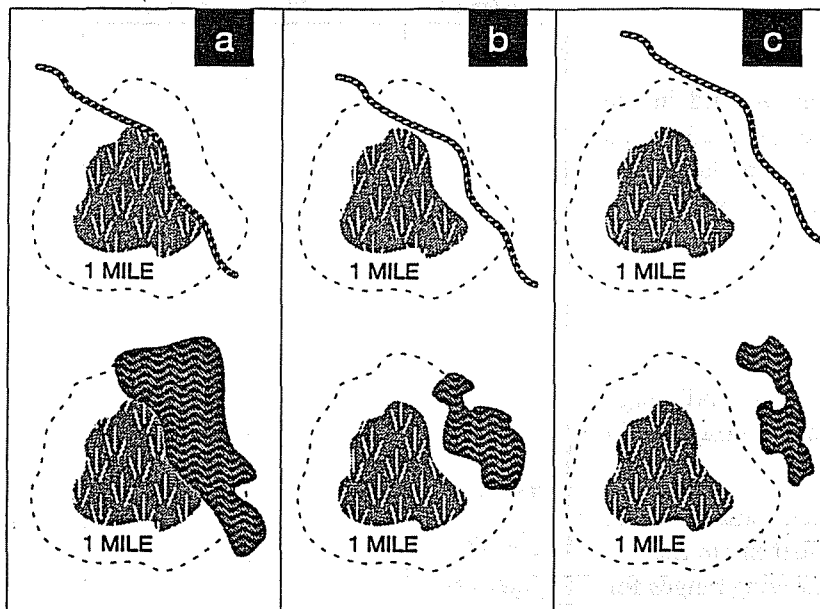


Figure 2. Connectivity to streams, lakes and ponds.

The lightly shaded area represents a wetland, the darkly shaded area represents a lake or pond and the dark line represents a stream. Part "a" shows the wetland connected to a stream, lake or pond, part "b" shows a stream, lake or pond within 1 mile but no surface connection, and part "c" shows no stream, lake or pond within 1 mile and no surface connection.

18. How is the wetland connected to another body of water, such as a stream, lake or pond? (See Figure 2.)
- The wetland is connected by surface water to another body of water. This may be by a culvert, irrigation ditch, intermittent stream or perennial stream.
 - No surface-water connection exists to another body of water, but other bodies of water lie within 1 mile of the wetland.
 - No surface-water connection exists to another body of water, and no other bodies of water lie within 1 mile of the wetland.
19. Is all or part of the wetland located within the 100-year floodplain (use floodplain maps to determine) or within an enclosed basin? An enclosed basin has no inlet or outlet.
- Yes.
 - No.

a

a

20. What percentage of the area within 500 feet of the wetland's edge is **zoned** for each of the land uses listed below?

Use the following ranges for your answers:

- Less than 20%
 - Between 20% and 50%
 - Greater than 50%.
- Open Space (includes natural areas, parks and developed recreation areas, but not lands zoned for Exclusive Forest Use).
 - Agriculture (pasture, cropped lands, orchards, range land).
 - Exclusive Forest Use lands.
 - Developed uses (residential, commercial, industrial).
 - Other (list).

Wetland habitat

21. What percentage of the wetland's area is covered by the following Cowardin wetland classes? (Cowardin wetland classes refer to a classification of wetland type by vegetation cover. See Appendix D.) Only list those that compose 10% or more of the overall wetland.

The percentages can be estimated in the field or from aerial photographs. Use the following categories for your answers:

- Between 70% and 100%.
 - 50% or more, but less than 70%.
 - 20% or more, but less than 50%.
 - 10% or more, but less than 20%.
- Open water (deep water habitat, greater than or equal to 6.6 feet or 2 meters).
 - Emergent (includes floating aquatics—herbaceous plants that can tolerate flooding and living in wet soils).
 - Scrub-shrub (woody vegetation under 20 feet tall).
 - Forested (woody vegetation 20 feet or taller).

22. For urban areas, how many wetland plant species are present? (You need not list the species name.)

- More than 5 plant species.
- Between 2 and 5 plant species.
- 1 plant species (monotypic).

23. What is the dominant wetland vegetation cover type?

- Woody vegetation (forested and scrub-shrub).
- Emergent vegetation and ponding, or open water only.
- Emergent vegetation only or wet meadow.

PAT 4

Wetland 1

Wetland 2

Wetland 3

1 = D.

4 = C

5 = a

(Cottontail;
dredge
material
deposits)

2 = C

3 = d

4 = b

a

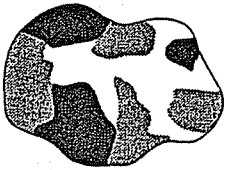
a

- ✓ 24. Refer to the diagrams in Figure 3 and select the one that most closely resembles the interspersions of Cowardin wetland classes and, if present, upland inclusions. (An upland inclusion is an island or an upland area surrounded on three sides by wetland.)

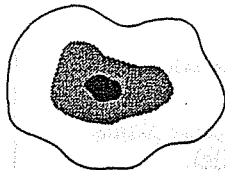
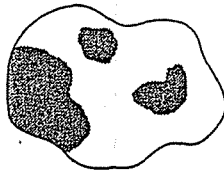
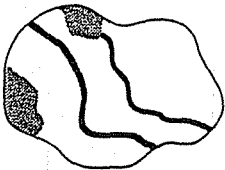
Wetlands composed of only one wetland class or with two wetland classes and a simple pattern have low interspersions. Wetland and upland complexes that have at least two wetland classes and a complex pattern have a moderate interspersions pattern. Wetlands with two or more wetland classes or upland inclusions with a complex pattern and lots of edge have a high interspersions pattern. If the wetland you are observing does not reflect any of the diagrams, use the above guidance to determine the complexity of the interspersions pattern and draw a sketch of the wetland.

- High.
- Moderate.
- Low.

High Interspersion (a)



Moderate Interspersion (b)



Low Interspersion (c)

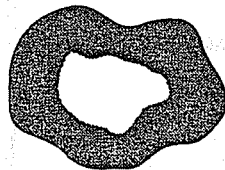
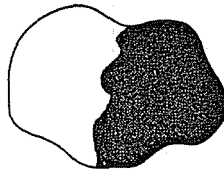
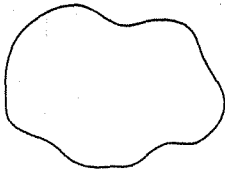


Figure 3. Interspersion of Cowardin classes and upland inclusions.

PAT 4

Wetland 1

Wetland 2

Wetland 3

b

PAT 4

Wetland 1

Wetland 2

Wetland 3

✓25. For **rural areas**: What percentage of the wetland's edge is bordered by upland wildlife habitat that is at least 150 feet wide? Brush, woodland, non-farmed agricultural land and range land are considered upland habitat for this question. Actively farmed lands are not considered wildlife habitat. (See Figure 4.)

- a. Greater than 40%.
- b. Between 10% and 40%.
- c. Less than 10%.

✓26. For **urban areas**: What percentage of the wetland's edge is bordered by a vegetative buffer at least 25 feet wide? A vegetative buffer consists of trees, bushes or vegetation that is not regularly mowed or farmed. (See Figure 5.)

- a. Greater than 40%.
- b. Between 10% and 40%.
- c. Less than 10%.

✓ 27. How is the wetland connected to other wetlands? (Look at an aerial photo or map to determine this.)

- a. Connected to other wetlands within a 3-mile radius by a perennial or intermittent stream, irrigation or drainage ditch, culvert, canal or lake.
- b. Not connected by surface waters, but other unconnected wetlands lie within a 3-mile radius.
- c. Not connected to other wetlands by surface waters, and no other unconnected wetlands lie within a 3-mile radius.

✓ 28. Estimate the area of unvegetated, open water within the wetland.

- a. More than 3 acres.
- b. Greater than 1 acre, up to 3 acres.
- c. Between 0.5 acre and 1 acre.
- d. Less than 0.5 acre.

(at time of study,
no open water;
(1996)
drainage ditch
basin enlarged
and bottom made
higher w/no
breaks in water)

N/A

a

a

d

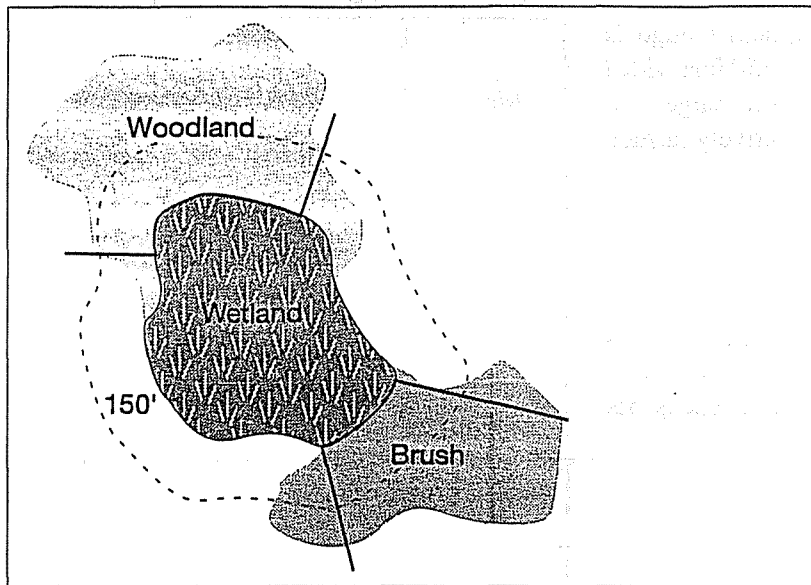


Figure 4. Percent of wetland edge bordered by upland habitat (for Question 25).

The dashed line delineates the area within 150 feet of the wetland; the "woodland" and "brush" areas are upland habitat; and the lines perpendicular to the wetland edge indicate where the upland habitat adjacent to the wetland habitat is at least 150 feet wide. The dark lines (portions of the wetland bordered by upland habitat at least 150 feet wide) make up roughly one-third (between 10% and 40%) of the wetland perimeter.

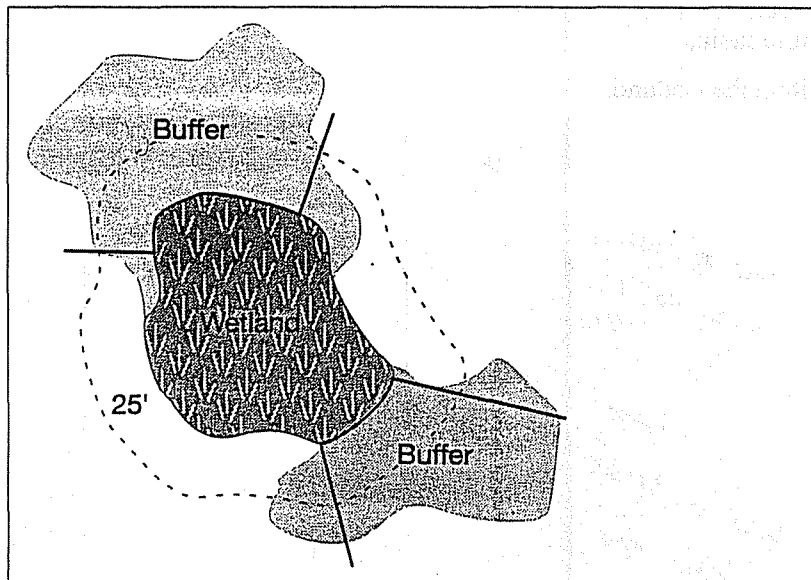


Figure 5. Percent of wetland edge bordered by vegetative buffer (for Question 26).

The dashed line delineates the area within 25 feet of the wetland; the vegetative buffer areas are labeled "buffer"; and the lines perpendicular to the wetland edge indicate where the vegetative buffer adjacent to the wetland habitat is at least 25 feet wide. The dark lines (portions of the wetland bordered by a vegetative buffer at least 25 feet wide) make up roughly one-third (between 10% and 40%) of the wetland perimeter.

Wetland 1

Wetland 2

Wetland 3

29. Are fish present in a stream, lake or pond connected to the wetland.

- ### ***Streams connected to the wetland***

✓30. What is the physical character of the stream channel? To observe stream channel modifications, look for built rock banks, cement sides, straightened areas or other human-created features.

10. What percentage of the stream is shaded by streamside (riparian) vegetation?

- ✓32. What percentage of the stream contains instream structures such as large woody debris, floating or submerged vegetation, large rocks or boulders?

- Lakes or ponds** (entire lake or pond and wetland complex)

Complete this section only if the wetland being assessed has a surface water connection to a lake or pond.

33. Does the lake or pond contain areas of deep and shallow water? ("Deep" is defined as more than 6.5 feet deep.)

- Yes.
- Cannot be determined.
- No.

PAT 4/

Wetland 1

Wetland 2

Wetland 3

Patterson
Chick

a

a

a

b

N/A

- ## Wetland hydrology

- | Wetland 1 | Wetland 2 | Wetland 3 |
|---|-----------|-----------|
| N/A
↓

a | | |
| a -
matted veg;
red deposits
standing water most
of year. | | |
| c | | |

PAT 41

✓39. If the primary source of water is surface flow, is the water flow into the wetland restricted?

- a. Flow is not restricted, or if blocked, the obstruction can be removed easily.
- b. Permanent blockage to the flow exists but may be breached or a new flow channel created (engineering or earth moving solution).
- c. Flow is restricted and cannot be restored.

40. Has the stream flow or stream bank been modified by human activities less than 1 mile above the wetland? Modifications include dams, channelizations and levees, and confinement of the stream in a pipe.

- a. Yes.
- b. No.

Public access to wetland site (select an appropriate area to observe the wetland to answer these questions.)

41. Is the wetland site open to the public for direct access or observation?

- a. Yes, the wetland is open to the public.
- b. Yes, but wetland access is allowed only by permission of the landowner or managing entity.
- c. No, access is not allowed.

✓42. Are there visible hazards to the public at the wetland site? (Examples: busy road adjacent to the site, and no buffer or sidewalk exists; steep embankment; and contaminated water.)

- a. No.
- b. One or two visible safety hazards exist (describe).
- c. More than two visible safety hazards exist (describe).

✓43. Are there other natural landscape features, such as a stream, lake, pond, forest or agricultural land contiguous or adjacent to the wetland?

- a. Yes. (List type and extent.)
- b. No.

Wetland 1

Wetland 2

Wetland 3

a b b - No sidewalk, trails, etc; steep banks; minimal access from Hwy 101. a - Tide Bay		
--	--	--

PAT 4

Wetland 1

Wetland 2

Wetland 3

✓44. Is there existing physical public access to features listed in Question 43? If not, can such access be created easily, or can other habitats be observed from the site? For a stream, pond or lake, access may require dry ground to the water's edge. Stream access could also be at a road crossing, but consider the safety at such locations

- a. Public access to other habitats exists or can be created easily.
- b. Public access doesn't exist and can't be created easily, but observation of other features can be made from the site.
- c. Public access doesn't exist and can't be created easily. In addition, observation of other features can't be made from the site.

* ✓45. Does it appear that access to a viewing spot or wetland edge is available for individuals with limited mobility? (To see whether the site meets ADA requirements, a more thorough examination should be done.)

- a. Yes.
- b. No. (List physical barriers.)

add 417

✓46. Is there a public access point within 250 feet of the wetland's edge? Access points include parking lots, transit stops, bike lanes, trails and water courses. Maintained means that the area is designated as a car or transit area by the managing entity. Unmaintained would be a road pull-off or other area that people use but is not designated for such use. Describe the type of access.

- a. Yes, a maintained access point exists (describe).
- b. Yes, an unmaintained access point exists (describe).
- c. No access point exists, or the access point is hazardous.

Recreation

✓47. Is the wetland accessible by boat?

- a. Boat launching areas or access points exist on site or within 1/2 mile on a connected lake, river, bay or other body of water.
- b. Potential to develop boat launching areas or access points exists, or such features are more than 1/2 mile but less than 1 mile from the wetland.
- c. No boat launching areas or access points exist within 1 mile of the wetland, and potential to develop launching areas or access points is limited.

Wetland 1	Wetland 2	Wetland 3
c		
b. steep topog, undeveloped; Highway 101		
a - City park, but no trails or openings to wetland		
N/A		

PAT 4

Wetland 1

Wetland 2

Wetland 3

48. Are there trails, viewing areas or other structures that guide user movement to a particular area or areas in or around the wetland?
- Yes, developed or maintained trails or viewing areas exist.
 - Yes, undeveloped trails or viewing areas exist that do not disrupt wildlife or plant habitat.
 - No trails or viewing areas exist, or those that do disrupt wildlife or plant habitat.
49. Is fishing allowed at the wetland or connected water body? (Contact local Oregon Department of Fish and Wildlife office.) Answer "not applicable" if question 18 was answered "b" or "c," unless question 21 indicates that 10% or more of the wetland's area is covered by open water.
- Yes (either all or part of the year).
 - No.
 - Not applicable.
50. Is hunting allowed at the wetland? (If the wetland is within the city limits, hunting is not allowed. Otherwise, contact the local Oregon Department of Fish and Wildlife office for this information.)
- Yes (either all or part of the year).
 - No.

C

b

b

Aesthetics

51. For rural areas, what is the extent of visual contrast with the surrounding landscape? (See Figure 6.)
- Significant contrast with surrounding landscape.
 - Limited contrast with surrounding landscape.
 - Little or no contrast with surrounding landscape.
52. For urban areas, what is the visual character of the surrounding area? (See Figure 7.)
- Open space or naturally landscaped areas.
 - Areas landscaped or manipulated by people.
 - Developed with no landscaping.
53. Are there visual detractors at the wetland site such as abandoned cars, litter, shopping carts or other objects that distract the viewer from the wetland?
- Yes.
 - No.
54. If the wetland contains visual detractors, as indicated in question 53, can they be removed easily?
- Yes.
 - No.

N/A

a & b

b

N/A

- Natural, pleasant odors only.
- Unpleasant odors such as automobile exhaust or stench from a sewage treatment plant are present at certain times.
- Unpleasant odors are distinct and continuously present.



The top part of the figure shows a wetland with significant visual contrast with the surrounding landscape. The bottom part shows a wetland with little or no visual contrast with the surrounding landscape.

Wetland 3

[illegible]

0.1 ✓56. What noises are audible at the primary viewing location(s)?

- a. Bird and wildlife noises and other naturally occurring sounds.
- b. Some traffic and other similar background sounds are audible in addition to naturally occurring sounds.
- c. Continuous traffic or other intrusive noise is audible in addition to naturally occurring sounds.
- d. Continuous traffic or other intrusive noise is audible, but no naturally occurring sounds are.

* 0.1 ✓57. How much of the wetland is visible from the viewing area(s)?

Describe the view.

- a. Greater than 50%.
- b. Between 25% and 50%.
- c. Less than 25%.

* 0.1 ✓58. How many Cowardin classes are visible from the primary viewing area(s)? (See question 21 for list of Cowardin classes to use.)

- a. More than two.
- b. Two
- c. One

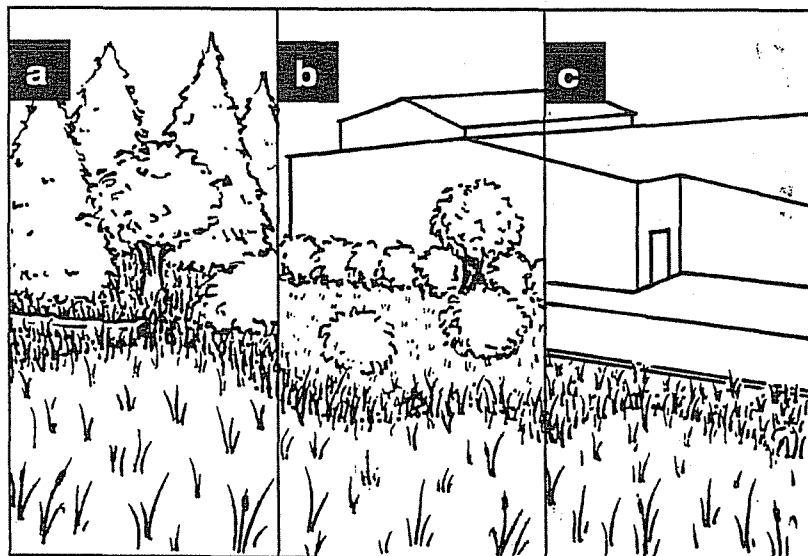


Figure 7. Visual character of urban wetlands.

Beginning with the left part, this figure shows an urban wetland with naturally landscaped areas, areas landscaped by people and with unlandscaped developed areas.

PAT 4

Wetland 1

Wetland 2

Wetland 3

b

b
grass/twigs
PEM in
dredge swale
willows/decid
PFO to E

b

Sad tale of woe for Bay City: read on:

But on 02/02/09, we received a scanned-in copy of the Bay City report.
In this directory.

From: Laura Brophy [mailto:brophy.l@peak.org]
Sent: Thursday, September 11, 2008 1:38 PM
To: Christy, John
Subject: Tillamook, Bay City, and Rockaway Beach LWI Extension files

Hi John,

Here's the Bay City, Tillamook, and Rockaway LWI material for your wetlands mapping project.

For the Tillamook and Bay City LWI files, please see my email to Janet below for details. The Tillamook report PDF is attached. I don't have a PDF of the Bay City report. The original Word documents for the Bay City report were on a hard drive that failed around 2001. The easiest way to make a PDF of that would be to scan the paper report.

For the Rockaway LWI Extension report, I looked on my old hard drive and found that I actually do have a PDF of the report, as well as the CAD files for the mapping! The project code was "RRIP" so the report is called RRIPreportFINAL.pdf. I zipped the CAD files for the Rockaway LWI Extension into two separate ZIP files which are attached:

RRIP_turbocad-maps.zip: This file contains the CAD files for the final RRIP-LWI maps. These are .acw files that I created in TurboCAD. I no longer have any CAD program and ArcView won't open these files, but maybe you can work with them. There are 5 maps and an index map.

RRIP_delin-map_DWG-files.zip: This file contains delineation CAD files created by a local surveyor, based on delineations that Loverna and I did and they surveyed. The delineations are for large properties on the northeast side of Rockaway. The surveyors didn't put their company stamp on the maps and I can't remember which company it was. These do open in ArcView, though, and they seem to align properly with each other. I don't have separate CAD files for any of the other wetland areas -- please read the methods section in the report.

Cheers,
Laura