-STATE LANDS-
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CITY OF TIGARD

LOCAL WETLANDS INVENTORY

WETLANDS ASSESSMENT

APPROVED WETLANDS INVENTORY
Oregon Division of State Lands
Meets LWI standards
Date 9/97 Approved by J. Morlan

Prepared for:

City of Tigard
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FES 94043

December 1994

Grandmother in the functional assessment

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1 INTRODUCTION

The City of Tigard contracted Fishman Environmental Services (FES) to update their existing wetlands inventory (SRI, 1989) to meet the Division of State Lands' Local Wetland Inventory (LWI) "Offsite Option" requirements and to conduct a wetland functions and values assessment. The boundaries of the 11.4 square mile Active Planning Area, the study area for this project, are shown in Figure 1.

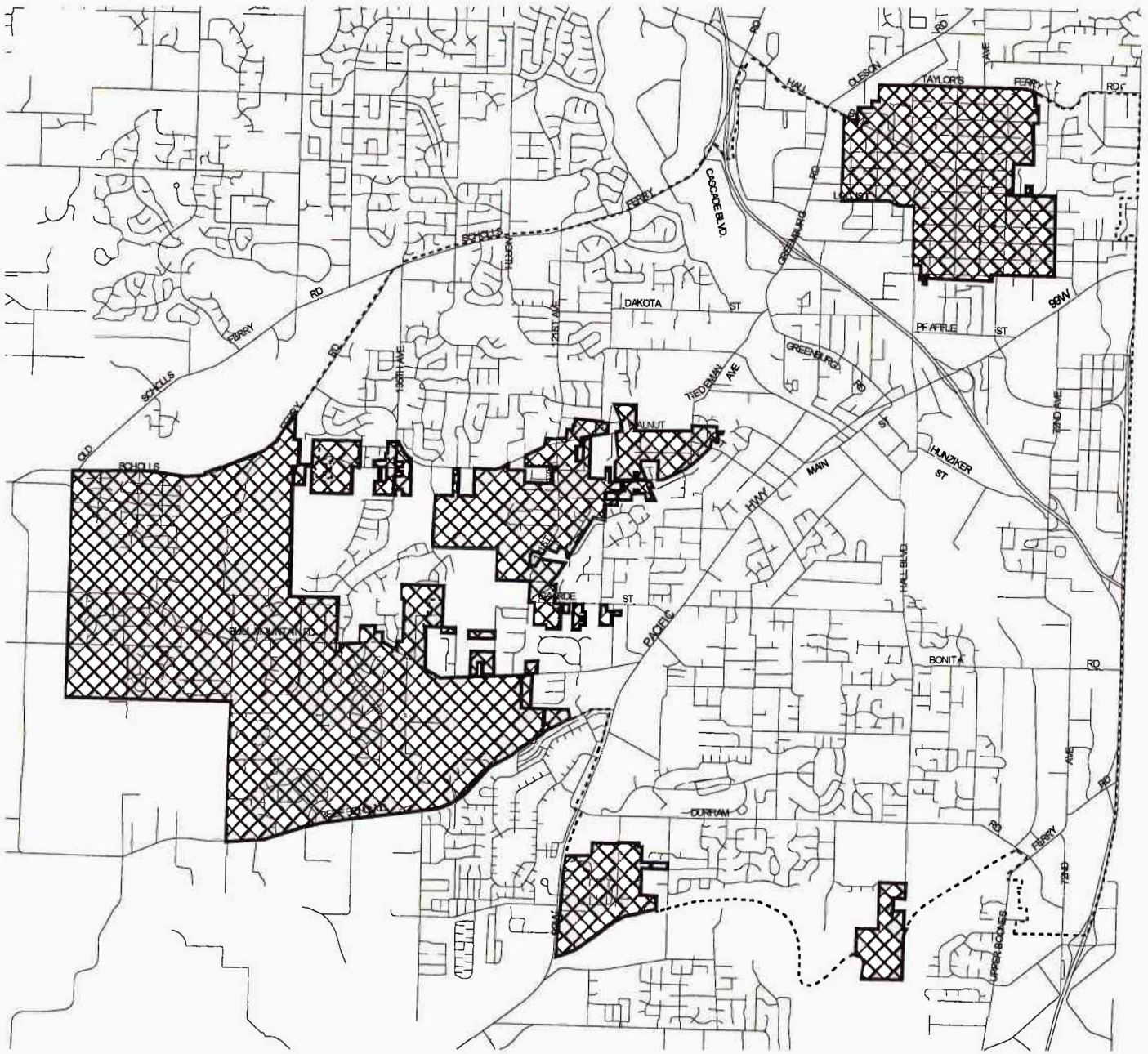
The FES amended scope of work included the following tasks:

> Task 1: Update existing wetland inventory to meet current DSL inventory standards. Verify that the previously identified wetlands still exist and that the approximated boundaries are correct. Collect location and quantity information for any newly identified wetland sites.
>
> Task 2: Identify Resource Units based on ecological, geomorphic and planning parameters for assessment. Conduct a wetland function and value assessment of identified wetlands according to the Oregon Freshwater Wetland Assessment Methodology.
>
> Task 3: Recommend significance criteria and provide a preliminary identification of significant sites.

The approach prepared by FES for this project was based on stream corridor assessment rather than assessment of individual wetland sites. The majority of wetlands inventoried in Tigard are closely associated with Fanno Creek and its tributaries, particularly Ash Creek and Summer Creek. Fanno Creek has long been recognized as a significant resource by local, state and federal agencies, and by the public. An analysis focused strictly on individual wetlands minimizes the importance of the Tigard streams; the wetlands, streams and riparian units together constitute a dynamic, interrelated ecological system.

FES developed an approach for completing the Goal 5 inventory and conducting the ESEE analyses that identified stream corridor segments as resource units. One stream corridor segment might include several associated wetlands previously identified as separate sites. In addition to making more sense ecologically, this approach resulted in fewer total resource sites, thus saving time and dollars when conducting conflicting use and ESEE analyses. Staff from DLCD and DSL approved this approach.

Figure 1
Study Area



2 METHODS

2.1 Task 1. Local Wetlands Inventory (Offsite Option)

2.1.1 Wetland Identification

Wetlands were previously identified by another consulting firm (SRI, 1989). Wetland boundaries were established based on the following factors: dominance of hydrophytic vegetation, significant changes in habitat (e.g., from a forested wetland to an agricultural field), and breaks in natural features created by roads, railways, or land use. During compilation of data, the previous consultant lumped sites together that were part of larger continuous wetland systems (SRI, 1989). To avoid confusion FES used these same "lumped" sites to designate wetland sites for updating the LWI. Summary sheets were completed for each of these "lumped" sites (Appendix A). FES identified new wetlands and confirmed or modified boundaries of previously identified wetlands based on the methodology contained in the 1987 Corps of Engineers Wetlands Delineation Manual (Environmental Laboratory, 1987).

Each wetland was classified according to a modified Cowardin, et al. (1979): palustrine forest (PFO), palustrine scrub-shrub (PSS), palustrine emergent (PEM), open water (POW), and riverine stream (R). The palustrine system includes all nontidal wetlands dominated by trees, shrubs, and persistent emergent vegetation. PFOs in Tigard are typically dominated by Oregon ash, *Fraxinus latifolia,* red alder, *Alnus rubra,* and Pacific willow, *Salix lasiandra* with an understory of slough sedge, *Carex obnupta,* or scrub-shrub vegetation. PSSs in Tigard are rare though scrub-shrub habitat is often contained within forested wetlands. Dominant shrub species include willow, red-osier dogwood, *Cornus stolonifera,* spirea, *Spiraea douglasii,* and Pacific ninebark, *Physocarpus capitatus.* PEMs in Tigard are dominated by reed canarygrass, *Phalaris arundinacea,* and also include a variety of grasses and forbs. POWs consist of ponds and other open water areas. Streams were designated as "PFO" or "PEM" if they flowed through forested or emergent wetlands. Streams were assigned an "R" for riverine if they were not associated with contiguous wetlands since it was important to identify hydrologic connections between streams, runoff, and wetlands. Special modifiers were used for describing disturbed wetlands (Cowardin, 1979): x=excavated, h=impounded/diked, b=beaver, d=partially drained/ditched, f=farmed. For example POWx identifies a manmade excavated pond.

2.1.2 Field Investigation

Each wetland site was field checked, except when access was denied, in order to update the wetland inventory to LWI "Offsite Option" standards. Field investigations were conducted by Christie Galen and C. Mirth Walker during the months of August through October, 1994.

Time spent at each wetland site varied depending on access, the size of the site, and the difficulty of the terrain. Field checking included sample plot data collection only to verify wetlands on problematic sites and to characterize wetland types.

2.1.3 Summary Sheet

Additional information that was collected and compiled on summary sheets during the FES study to update the existing inventory included: 1) description of wetland/upland boundaries, 2) mapped hydric soils, 3) acreage, 4) National Wetlands Inventory (NWI) classification 5) special modifiers (Cowardin et al., 1979), 6) Tax Map Number, 7) zoning, and 8) sample plot data collection to verify wetlands on problematic sites and to characterize wetland types. Summary sheets and determination data sheets are included in Appendix A. Background information is included in Appendix B.

2.2 Task 2. Identify Resource Units and Conduct Wetland Function and Value Assessment

2.2.1 Resource Unit Identification

The 1989 Wetland Inventory for Tigard identified 78 wetland sites. These wetland sites were grouped into 11 resource units defined by stream reaches and zoning patterns.

2.2.2 Wetland Function and Value Assessment

Wetland attributes were assessed using the Oregon Freshwater Wetland Assessment Methodology hereafter called the Oregon Method (Roth, E.M., et al, 1993), developed by DSL with assistance from other agencies. The purpose of the Oregon Method is to provide qualitative descriptions of wetland functions and conditions. The Oregon Method is a planning tool. It is intended for use in assessing a number of wetlands within an area to provide a basis for making informed decisions on their protection, conservation, and best use. Background information including zoning, floodplain, and fish and wildlife data, was assembled and a Wetland Characterization data sheet was completed for each unit (Appendix E). This is a standardized multiple choice form which focuses on the watershed, the landscape, wildlife habitat, fisheries, hydrology, water quality, access, recreation and aesthetics and includes compilation of field and office data. Subsequently, Function and Condition assessment questions were answered and Summary Sheets compiled (Appendix E). A description of each Unit and standardized summary sheets are included in the results section of this report.

The Oregon Method assesses six wetland functions: wildlife habitat, fish habitat, water quality, hydrologic control, education, and recreation. It also assesses the conditions of sensitivity to impacts, enhancement potential, and aesthetics. A brief description of the attributes assessed is provided below:

Wildlife Habitat - evaluates the habitat diversity for species typically associated with wetlands and wetland edges. No single species is emphasized. Diverse vegetation and structure rate high compared to monocultures with low structural diversity.

Fish Habitat - evaluates how the wetland contributes to fish habitat in streams, ponds or lakes associated with the wetland for either warm-water or cold-water fisheries. No single species is emphasized. Shaded streams with instream structure, such as woody debris, boulders, and undercut banks, rate high compared to unshaded reaches without instream structure.

Water Quality - evaluates the potential of the wetland to reduce the impacts that excess nutrients in runoff water will have on downstream waters. Urban wetlands adjacent to streams provide greater water quality benefits than isolated wetlands.

Hydrologic Control - evaluates the effectiveness of the wetland in storing floodwaters and reducing downstream flood peaks. Wetlands associated with streams provide flood attenuation. Isolated wetlands provide less hydrologic control.

Sensitivity to Impact - evaluates the susceptibility of a wetland to secondary effects of impacts. Forested wetlands can be more sensitive to disturbance due to slow regeneration whereas emergent wetlands may recover more quickly. Impacted water quality or quantity may also put wetlands at a greater risk.

Enhancement Potential - evaluates the suitability of a degraded wetland site for enhancement. The Oregon Method assumes high value wildlife habitat areas have low enhancement potential because they already provide wildlife habitat values and should not be disturbed. Since urban streams in Tigard provide valuable wildlife habitat, they would have low enhancement potential according to the Oregon Method. FES feels that fish and wildlife habitat would benefit from enhancement activities and consequently has omitted wildlife habitat value from determining the enhancement potential of a site.

Education - evaluates the suitability of the wetland as a site for an "outdoor classroom." Criteria in the Oregon Method rely on "safe public access" and diverse wildlife habitat. FES also included proximity to schools as an important criterion to be considered.

Recreation - evaluates the suitability of the wetland and associated watercourses for non-powered boating, fishing and similar recreational activities. Recreation rates high if the site provides public access, trails, a boat launch and wildlife habitat is diverse.

Aesthetic Quality - evaluates the visual and aesthetic quality of the wetland. Natural settings with diverse vegetation and tranquility rate high compared to areas with low vegetation diversity, constant traffic noise, and unnatural smells.

Wetland functions and values for individual wetlands were rated using similar criteria to the Oregon Method but adapted for individual sites to assist in comparing site values and establishing protection measures for significant sites. Functions and values assessed for each wetland included: wildlife habitat, fish habitat, linkage to other open spaces, uniqueness, water quality, hydrologic control, recreation, education, and aesthetics. Uniqueness rated high if the site contained a unique plant community or an unusually diverse mosaic of plant communities. Linkage rated high if sites were connected to larger open space upland areas as well as to drainage corridors. Aesthetic value was rated as described above with the addition of important view sheds adjacent to Highway 217 that were rated Medium. Wetlands adjacent to Highway 217 provide aesthetic views and also provide a buffer between the highway and other land uses. Individual site ratings are included in Appendix C.

2.3 Cartography

Wetland boundaries were mapped on clear acetate overlays over black and white aerial photographs (WAC, 3/27/94, scale 1 inch = 400 feet) by FES staff and then digitized by the City of Tigard (Nels Mickaelson). The wetland boundaries depicted on the aerials and overlays are approximate. A formal wetland delineation will be needed prior to any site development in order to satisfy the legal requirements of DSL and the U.S. Army Corps of Engineers. Although efforts were made to ensure that no wetland areas within the City of Tigard were missed, there is no guarantee of this.

The Oregon Method assesses wetlands with relationship to contiguous uplands, zoning, and land uses. Resource unit boundaries were mapped to include wetland site boundaries plus 500 feet on all sides to include adjacent uplands and varied land uses.

3 RESULTS AND DISCUSSION

3.1 Local Wetlands Inventory "Offsite Option"

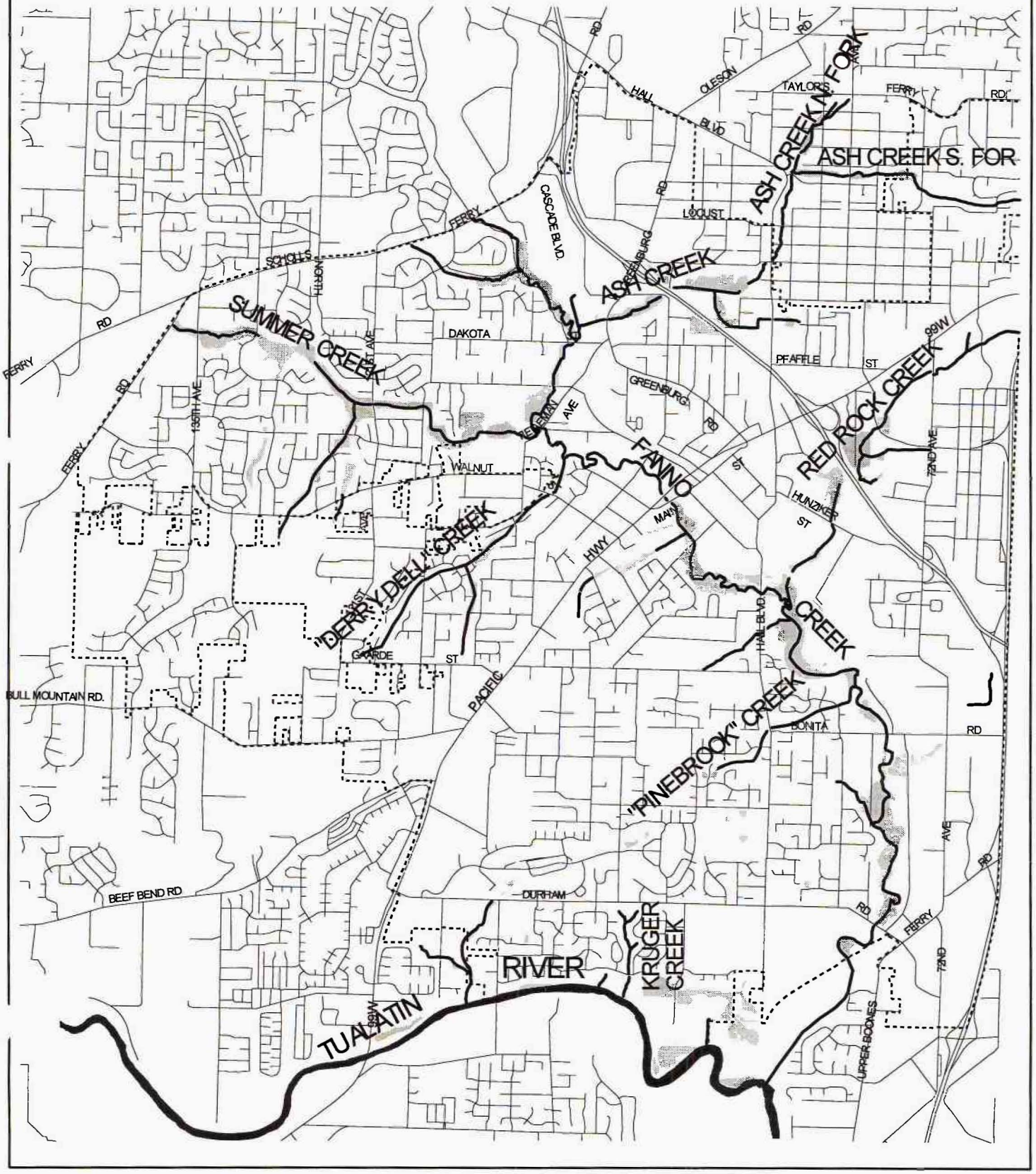
The distribution of wetlands within the study area is closely associated with existing surface drainage patterns (Figure 2). Fanno Creek is the dominant stream system. It follows a north to south flowing course from its headwaters in the West Hills of Portland to its mouth at the

Figure 2
Streams In Study Area

Streams

City Limits

N



Tualatin River. It is fed by two major tributaries, Ash and Summer Creeks, and 8 minor tributaries, Red Rock, Pinebrook, Ball, Derry Dell, Krueger, Hiteon, and two with unknown names. Wetlands along Fanno Creek and its major tributaries are relatively long and narrow and are limited to the floodplain by topographic features. Two small perennial streams, Copper Creek and an unnamed stream, flow south directly to the Tualatin River along the southern border of the study area. A few isolated wetlands, including agricultural ponds, golf course ponds, and a stormwater detention pond, also were identified.

117 wetlands were initially identified in the 1989 study (SRI, 1989). During compilation of data, the previous consultant lumped individual wetlands together that were part of larger contiguous wetland systems reducing the number of wetland sites to 78. These wetland sites were separated by roads, railways, or development. Six of these have been developed (A6, B9, B18, B21, F11, F12) and four of these have been partially developed (A4, E30, G1, G2). To avoid confusion, FES used these same groupings and wetland numbers. FES also identified five additional wetlands (E39, F24, F25, F26, F27) which were mapped and described. E39 is contiguous to an existing identified wetland and is included in the wetland summary for E14-16, 18-21). A total of 78 wetland sites were inventoried and summary sheets are included in Appendix A. Wetland acreage totals approximately 306 acres within the City of Tigard's Active Planning Area.

The following products satisfy DSL requirements for a completed LWI "Offsite Option":

- updated map of identified wetlands;
- Wetland Summary Sheets, Appendix A of this report;
- Wetland Determination Data Sheets, Appendix A of this report;
- LWI Background Information tables, Appendix B of this report;

3.2 Wetlands Assessment (Oregon Method)

Wetland Sites in the LWI were combined into the following 11 resource units for Assessment:

Unit 1 Upper Ash Creek
Unit 2 Lower Ash Creek
Unit 3 Upper Fanno Creek from Scholl's Ferry Rd. to Tiedeman Ave.
Unit 4 Summer Creek
Unit 5 Derry Dell Creek
Unit 6 Red Rock Creek
Unit 7 Middle Fanno Creek from Tiedeman Ave. to Bonita Rd.
Unit 8 Lower Fanno Creek from Bonita Rd. to the Tualatin River
Unit 9 Tualatin River
Unit 10 Short tributaries to the Tualatin River
Unit 11 Pinebrook Creek and associated ponds

The following pages contain a narrative description followed by the Oregon Method Summary Sheet for each unit. Table 1 summarizes wetland assessment ratings for the 11 resource units. Resource unit locations are shown in Figure 3.

The specific criteria and rating descriptions for each evaluated function are listed in Appendix D. The rating system is explained below:

A: The resource unit provides the function.

B: The resource unit has the potential to provide the function (or provides the function for some species - wildlife habitat function).

C: The resource unit does not provide the function.

The assessment information presented in this report is intended for planning purposes, including the identification of significant natural resources for the Oregon Goal 5 process.

3.2 Wetlands Assessment (Oregon Method)

Individual wetlands in the LWI were combined into the following 11 resource units:

Unit 1 Upper Ash Creek
Unit 2 Lower Ash Creek
Unit 3 Upper Fanno Creek from Scholl's Ferry Rd. to Tiedeman Ave.
Unit 4 Summer Creek
Unit 5 Derry Dell Creek
Unit 6 Red Rock Creek
Unit 7 Middle Fanno Creek from Tiedeman Ave. to Bonita Rd.
Unit 8 Lower Fanno Creek from Bonita Rd. to the Tualatin River
Unit 9 Tualatin River
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C: The resource unit does not provide the function.

The assessment information presented in this report is intended for planning purposes, including the identification of significant natural resources for the Oregon Goal 5 process.

The following excerpts from the Oregon Method (Roth et al., 1993) discuss the intended use of this information:

> The Oregon Method was designed to be defensible if used for its intended purposes. Its end products are qualitative descriptions of wetland functions and conditions.
>
> The Oregon Method is based on the idea that the functions and conditions of a wetland system and individual sites must be understood at the local, state and federal levels in order to make management decisions. Completion of this method provides the basic information. When more detailed information is needed, another method should be used.
>
> The Oregon Method was designed as a tool for the following purposes:
>
> - To educate planners, city council members, county commissioners, planning commissions and members of the community about wetlands in their community
> - To collect basic information about wetlands in an assessment area, which could be a community, a watershed or a region of the state
> - To create a database containing information about functions and conditions and other wetland data
> - To support the planning and decision-making process within a jurisdiction
>
> It is necessary to remember that the Oregon Method is a planning tool. It is intended for assessing a number of wetlands in an assessment area, not for evaluating site-specific impacts.
>
> The Oregon Method requires each wetland in the study area to be evaluated for the same functions and conditions. It does not determine the wetland's overall value. Using the results of the Oregon Method, communities can make informaed decisions on the protection, conservation and best use of wetlands.

Limitations of the Oregon Method are listed on page 4 of Roth et al. (1993).

Figure 3
Index To Resource Units

11 Index to Resource Units

N

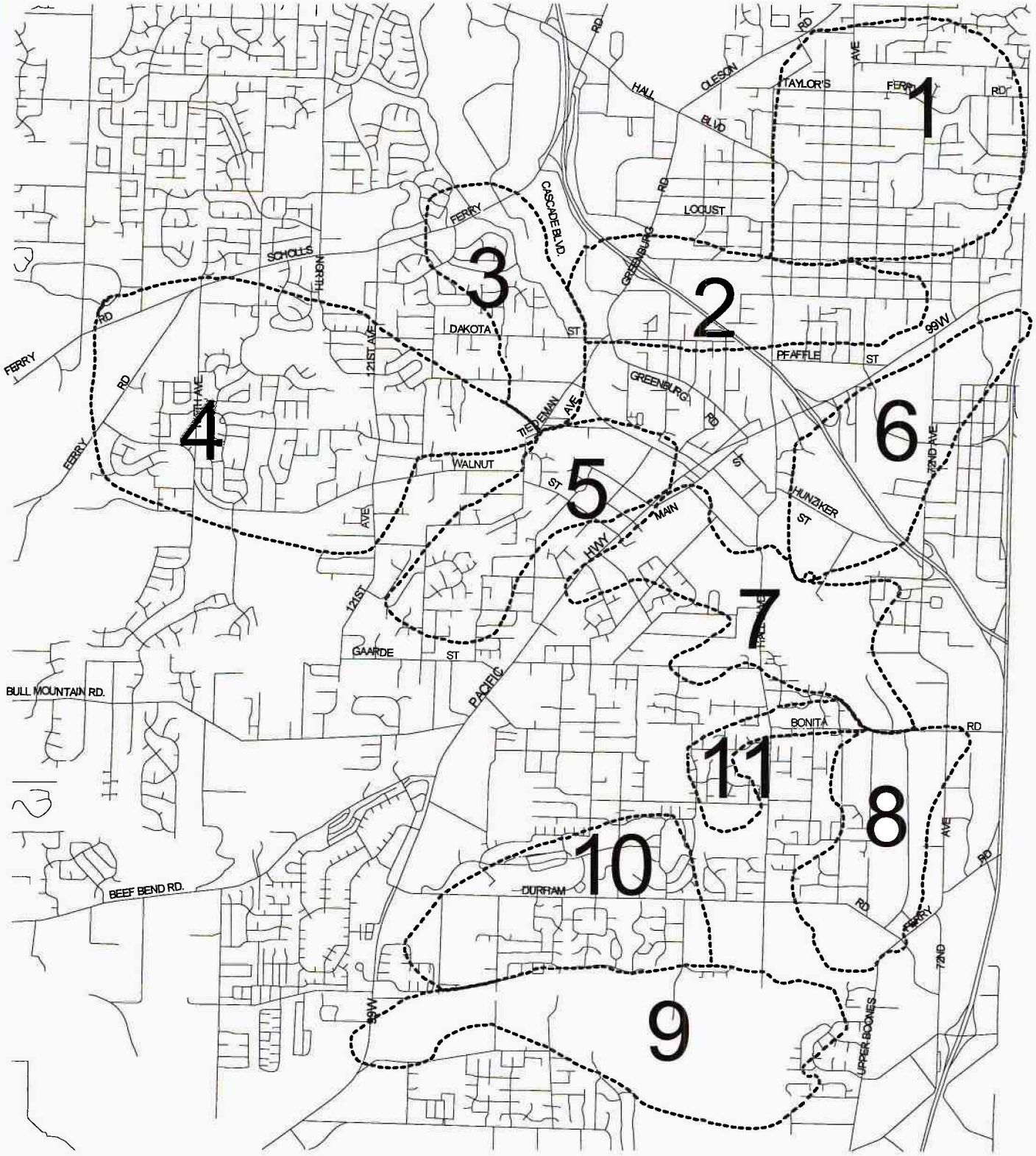


Table 1. Summary of Wetland Assessment Ratings for Aquatic Resource Units

FUNCTIONS & VALUES	Unit 1	Unit 2	Unit 3	Unit 4	Unit 5	Unit 6	Unit 7	Unit 8	Unit 9	Unit 10	Unit 11	
Wildlife habitat	A	B	A	A	A	B	A	B	A	A	B	
Fish Habitat	B	B	B	B	B	B	A	B	A	B	B	
Water Quality	A	A	A	A	A	A	A	A	A	A	B	
Hydrologic Control	A	A	A	A	A	A	A	A	A	A	B	
Education	C	C	B	A	C	C	A	C	A	C	B	
Recreation	B	C	A	A	C	C	A	C	A	C	B	
Aesthetic Quality	A	B	A	A	A	C	A	A	A	A	B	
Sensitivity to Impacts	B	B	B	B	B	B	B	B	B	B	B	
Enhancement Potential	A	B	A	A	A	A	A	A	A	A	B	Total
Approximate Acres	9	26	32	75	9	21	54	37	36	6	1	306

CITY OF TIGARD

Wetlands Inventory
Unit 3

City of Tigard

Identified Wetlands

Streams

33 34 / 4 3 Public Land survey Section IDs

Resource Unit Boundary

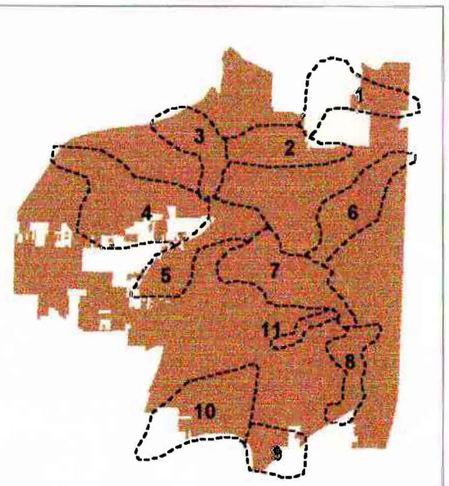
Sample Plot Location

SOURCES: Scientific Resources Inc. and Fishman Environmental Services. Aerial photography from 4/94 at a nominal scale of 1" = 400'.

Information on this map is of a generalized nature. In all cases, actual field conditions determine wetland boundaries.

All public land survey sections depicted on this map are either T1SR1W or T2SR1W.

INDEX MAP



08/20/97 1" = 600' N

CITY OF TIGARD

Wetlands Inventory
Unit 2

City of Tigard

Identified Wetlands

Streams

Public Land survey Section IDs

Resource Unit Boundary

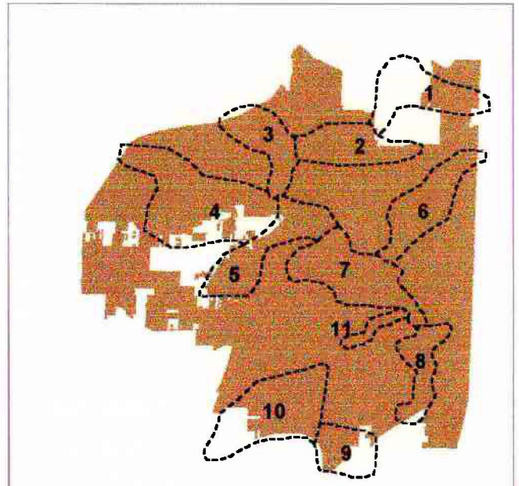
Sample Plot Location

SOURCES: Scientific Resources Inc. and Fishman Environmental Services. Aerial photography from 4/94 at a nominal scale of 1" = 400'.

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All public land survey sections depicted on this map are either T1SR1W or T2SR1W.

INDEX MAP



08/20/97 1" = 500'

N

CITY OF TIGARD

Wetlands Inventory
Unit 1

City of Tigard

Identified Wetlands

Streams

33 | 34
4 | 3
Public Land survey Section IDs

Resource Unit Boundary

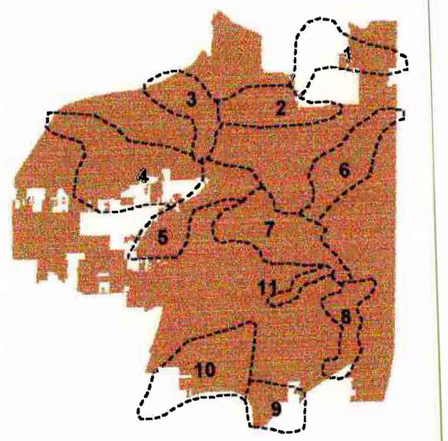
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INDEX MAP



08/20/97

1" = 400'

N

C-1
C-2
C-3
C-4
C-5
C-6
C-7
C-8
C-14

TAYLORS FERRY RD
SW CHASE LN
SW 76TH PL
SW 76TH PL
TAYLORS FERRY RD
70TH AVE
BIRCH ST
CEDARCREST ST
SW FAST PL
CHESTNUT ST
77TH AVE
SHADY CT
SHADY LN
LOLA LN
ELMWOOD ST
ELMWOOD ST
BARBARA LN
BLVD
80TH AVE
HEMLOCK ST
82ND AVE
LARCH ST
LARCH ST
77TH AVE
SW LANDAU PL
74TH AVE
VENTURA
VENTURA C
26 | 25
35 | 36
LOCUST ST
LOCUST ST
74TH PL
MAPLELEAF ST
MAPLELEAF ST
5TH AVE

CITY OF TIGARD

Wetlands Inventory
Unit 4

Identified Wetlands

Streams

33|34 / 4|3 Public Land Survey Section IDs

Resource Unit Boundary

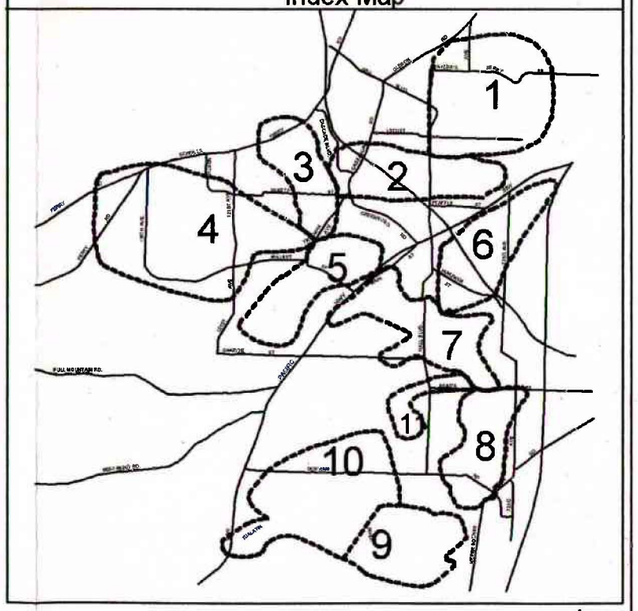
▲ Sample Plot Location

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Public Land Survey Information: All Public land survey sections depicted on this map survey are within either T1SR1W or T2SR1W.

Index Map



Plot Date: 09/23/96 Scale 1" = 700 feet

N

CITY OF TIGARD

Wetlands Inventory
Unit 7



Identified Wetlands

Streams

33|34
4|3 Public Land Survey Section IDs

Resource Unit Boundary

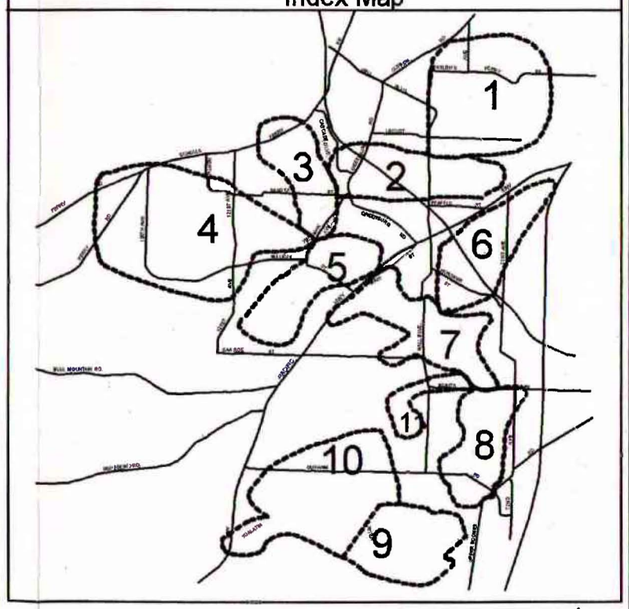
▲ Sample Plot Location

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Public Land Survey Information: All Public land survey sections depicted on this map survey are within either T1SR1W or T2SR1W.

Index Map



Plot Date: 09/23/96 Scale 1" = 700 feet

N

CITY OF TIGARD
Wetlands Inventory
Unit 5

Identified Wetlands

Streams

33|34 / 4|3 Public Land Survey Section IDs

Resource Unit Boundary

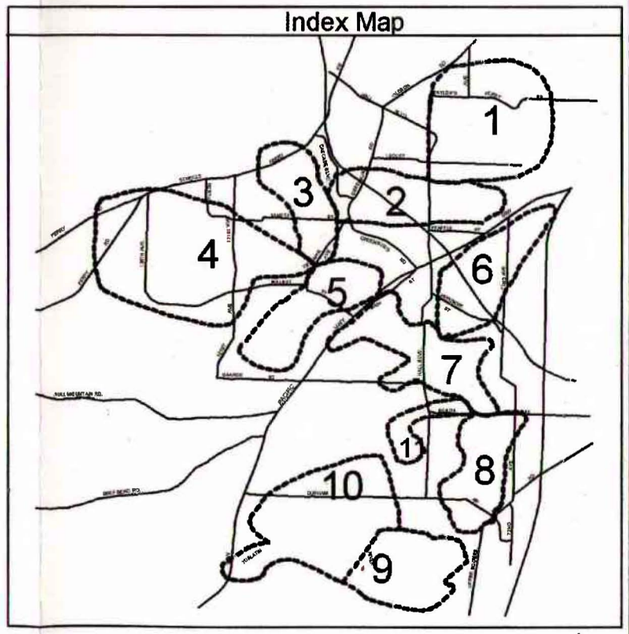
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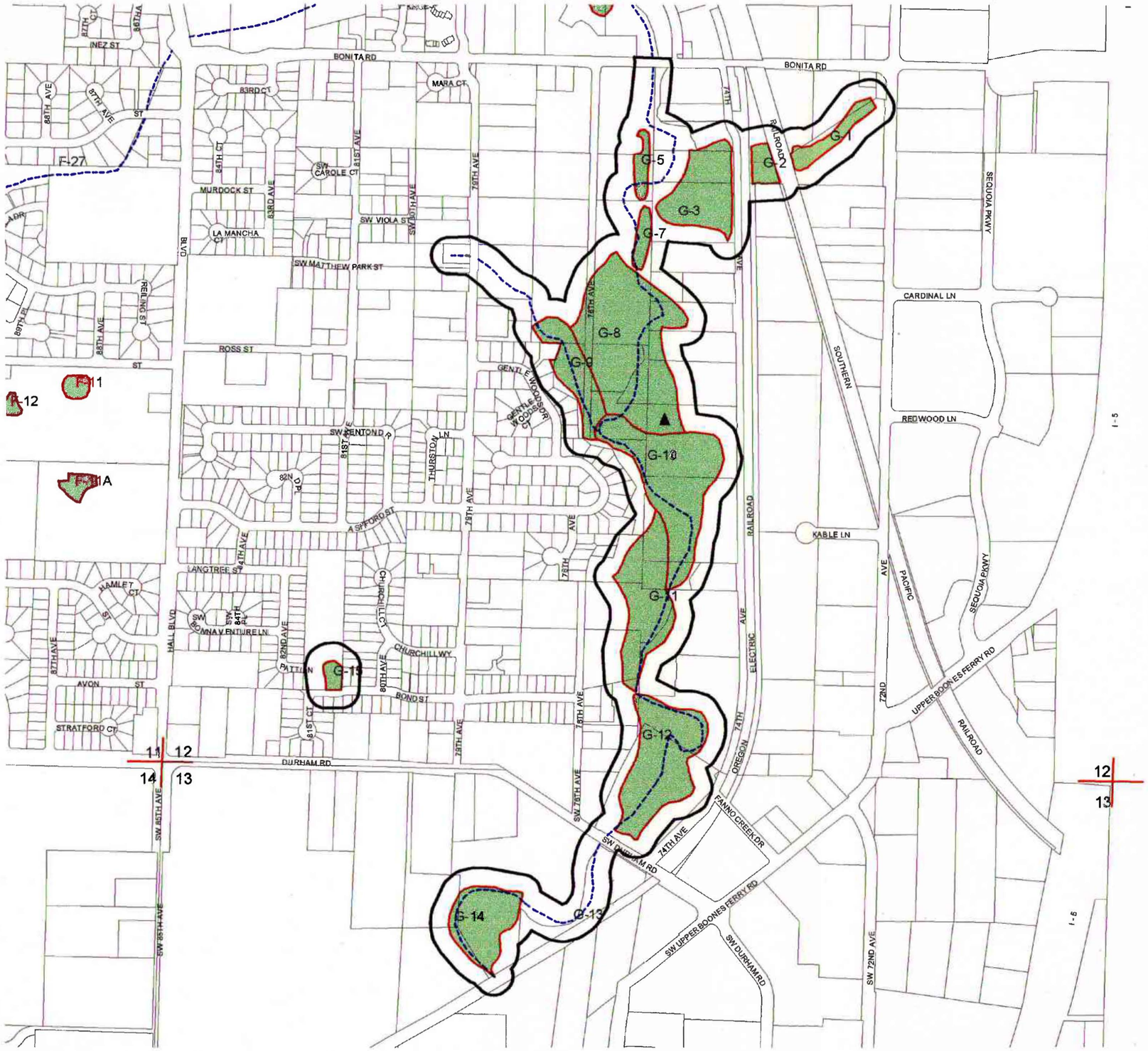
Index Map



Plot Date: 09/23/96 Scale 1" = 700 feet

N

CITY OF TIGARD
Wetlands Inventory
Unit 8



Identified Wetlands

Streams

33|34
4|3 Public Land Survey Section IDs

Resource Unit Boundary

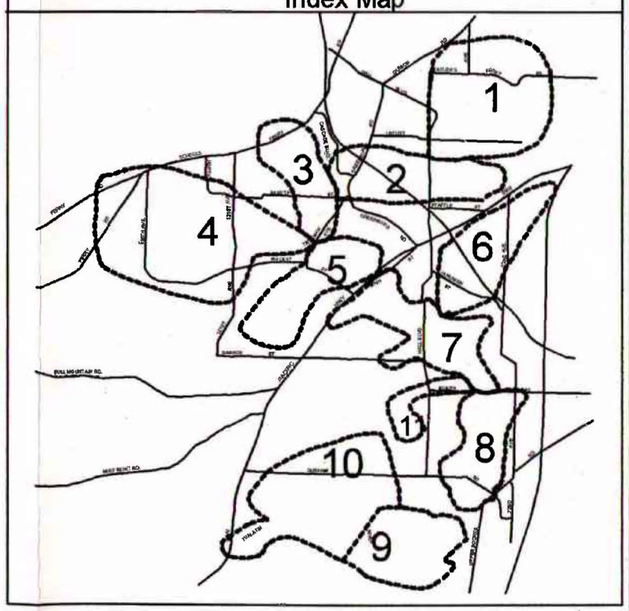
▲ Sample Plot Location

Source: Scientific Resources Inc. and Fishman Environmental Services. Aerial photography from April, 1994 at a nominal scale of 1" = 400'.

Information on this map is of a generalized nature. In all cases, actual field conditions determine wetland boundaries.

Public Land Survey Information: All Public land survey sections depicted on this map survey are within either T1SR1W or T2SR1W.

Index Map



Plot Date: 09/23/96 Scale 1" = 700 feet

N

CITY OF TIGARD
Wetlands Inventory
Unit 10

Identified Wetlands

Streams

33|34
4|3 Public Land Survey Section IDs

Resource Unit Boundary

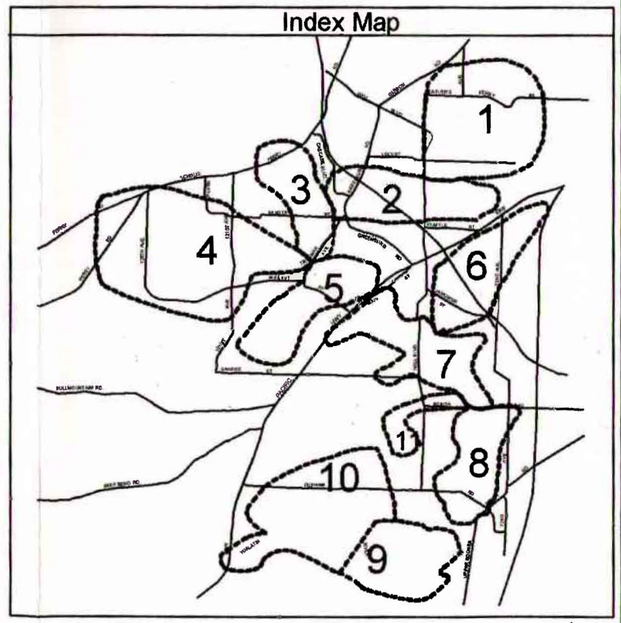
▲ Sample Plot Location

Source: Scientific Resources Inc. and Fishman Environmental Services. Aerial photography from April, 1994 at a nominal scale of 1" = 400'.

Information on this map is of a generalized nature. In all cases, actual field conditions determine wetland boundaries.

Public Land Survey Information: All Public land survey sections depicted on this map survey are within either T1SR1W or T2SR1W.

Index Map



Plot Date: 09/23/96 Scale 1" = 700 feet

N

CITY OF TIGARD
Wetlands Inventory
Unit 11

Identified Wetlands

Streams

33|34
4|3 Public Land Survey Section IDs

Resource Unit Boundary

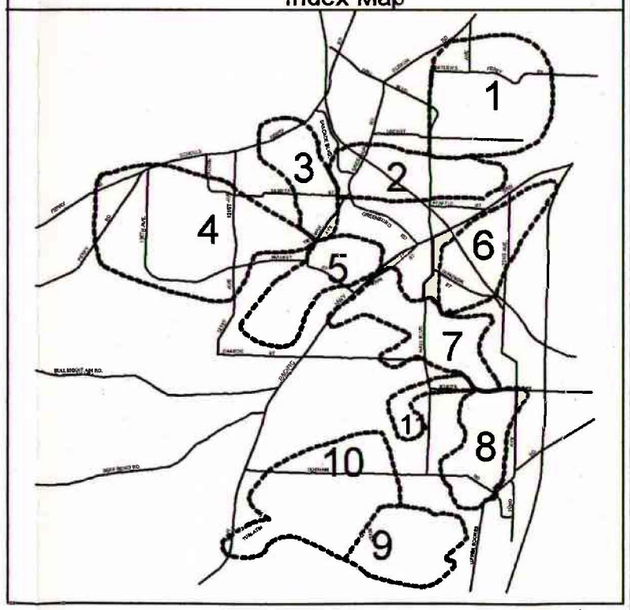
▲ Sample Plot Location

Source: Scientific Resources Inc. and Fishman Environmental Services. Aerial photography from April, 1994 at a nominal scale of 1" = 400'.

Information on this map is of a generalized nature. In all cases, actual field conditions determine wetland boundaries.

Public Land Survey Information: All Public land survey sections depicted on this map survey are within either T1SR1W or T2SR1W.

Index Map



Plot Date: 09/23/96 Scale 1" = 600 feet

N

CITY OF TIGARD

Wetlands Inventory
Unit 9

City of Tigard

Identified Wetlands

Streams

33 34
4 3 — Public Land survey Section IDs

Resource Unit Boundary

▲ Sample Plot Location

SOURCES: Scientific Resources Inc. and Fishman Environmental Services. Aerial photography from 4/94 at a nominal scale of 1" = 400'.

Information on this map is of a generalized nature. In all cases, actual field conditions determine wetland boundaries.

All public land survey sections depicted on this map are either T1SR1W or T2SR1W.

INDEX MAP



08/20/97 1" = 500' N

SW JULIA PL
SERENA WAY
MEADOWOOD WY
WOODCREST AVE
COPPER CREEK DR
MILLEN DR
94TH
SW 92ND AVE
SW 85TH AVE
KENT PL
GREENLAND DR
KENT CT
RIVERWOOD LN
SW WAVERLY DRIVE
F-15
F-16
F-17
F-18
F-19
F-26
F-20
F-21
SW 92ND AVE
SW CHEYENNE WY
SW PAWNEE PATH
SW SHASTA TRL
SW CHIPPEWA TRAIL
SW SIOUX CT
SW CHEYENNE WY
SW SHAWNEE TRL
ARKENSTONE DR
WILDERLAND CT
SW WOODY
SW ELLMAN LA
14 13
23 24

CITY OF TIGARD

Wetlands Inventory
Unit 6

City of Tigard

Identified Wetlands

Streams

33 34
4 3 — Public Land survey Section IDs

Resource Unit Boundary

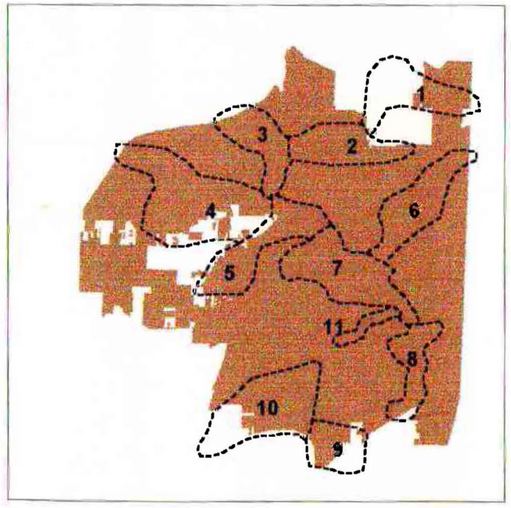
Sample Plot Location

SOURCES: Scientific Resources Inc. and Fishman Environmental Services. Aerial photography from 4/94 at a nominal scale of 1" = 400'.

Information on this map is of a generalized nature. In all cases, actual field conditions determine wetland boundaries.

All public land survey sections depicted on this map are either T1SR1W or T2SR1W.

INDEX MAP



08/20/97 1" = 600' N

E-13 E-15 E-16 E-28 E-29 E-30 E-31 E-32 E-33 E-26 E-27 E-28 E-28 C-16 C-23

PFAFFLE ST
PACIFIC HWY
99W
ATLANTA ST
BAYLOR ST
CLINTON ST
DARTMOUTH ST
ELMHURST ST
HERMOSO WAY
BEVELAND ST
GONZAGA ST
FRANKLIN ST
VARNS ST
HALL BLVD
WARNER AVE
GARDEN PL
KNOLL DR
RAILROAD
83RD AVE
82ND AVE
81ST AVE
79TH AVE
76TH AVE
72ND AVE
70TH AVE
69TH AVE
68TH AVE
67TH AVE
65TH AVE
35 36 2 1
36 1

3.3 Task 4: Significance Criteria

The determination of resource site significance will be the first task in Phase 2 of the Tigard Goal 5 study. This section discusses proposed methods for determining significance, and the use of the inventory information in that task.

The first step in determining resource unit significance is to identify resource areas that are already determined "significant" in city code or plan documents. For resource areas that are already determined to be significant, the Project Team will document the environmental and social factors that make those areas significant.

Significance determination for remaining units will be based on an evaluation of environmental and social values. The following Values are proposed for discussion and consideration for determining significance of resource units:

Environmental Values

E1. The unit contains state or federal categorized species (or critical habitat) or physical feature.

A unit is significant if it contains any plant or animal species, or critical habitat for such, that is categorized on a state or federal sensitive, rare, threatened or endangered list. This value also applies to physical features that are categorized by local, state or federal agencies; examples could include: scenic river, geologic area of significance, etc.

E2. The unit contains native plant communities exhibiting high ecological integrity.

Relatively undisturbed native plant communities with few or no non-native plants are rare.

E3. The unit has medium or high wildlife habitat value.

This should be based on a standard assessment protocol, such as the WHA; the rating ranges for "medium" and "high" need to be determined.

E4. The unit provides water quality or hydrology functional values.

Resource units that provide water quality protection to receiving streams, and/or stormwater storage that is cumulatively important within the watershed are important.

E5. The unit is important for ecosystem integrity or function.

Units are significant if they provide ecosystem linkage or continuity, allow wildlife passage between larger habitat units or genetic flow between plant populations, provide critical habitat for certain life history stages of sensitive fish and wildlife species, or other functions at the watershed or ecosystem level.

Social Values

S1. The unit provides educational value that is medium or greater (including potential value).

Units are significant if they provide educational opportunities for local schools, or research opportunities for the scientific community. This value is dependent on accessibility and distance from schools.

S2. The unit has scenic or buffering qualities that rate medium to high.

Rating of scenic quality is fairly subjective, and is based on visual characteristics. Buffering qualities refer to visual, noise and air quality protection.

S3. The unit provides medium to high opportunity for passive recreation.

The rating for recreational opportunity is based on a combination of accessibility, medium or high environmental or scenic value, and low probability that recreational use will adversely affect environmental or scenic values.

Specific criteria need to be agreed upon for each of the values listed above. Evaluation for several of these values can be based on the functional value ratings derived for Tigard units using the Oregon Method. The Oregon Method by itself does not provide ratings of

significance. The results summarized in Table 3.2-1 can not really be used to compare units and conclude that some are significant and others are not. Each unit must be considered on its own values, using the Oregon Method results where appropriate.

There is a tendency to draw conclusions from a summarization such as Table 3.2-1 about the significance of individual units. Unit 11, for example, is small (1.3 acres) and scored "B" for every function ("B" means the unit has potential to provide the function, or provides the function in a limited way). Unit 7, on the other hand, is large (54 acres) and scored "A" for 8 of the 9 functions ("A" means the unit provides the function). Is Unit 7 significant and Unit 11 not significant? This is not necessarily the case, and each unit needs to be considered within a framework such as the Values presented above to determine significance.

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ACKNOWLEDGMENTS AND PROJECT STAFF

FES would like to express our appreciation to Duane Roberts, Associate Planner, and Nels Mickaelson, Assistant Planner, for the City of Tigard. We hope that the information contained within this inventory will assist in wise land use decisions.

Fishman Environmental Services Project Staff

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Ms. Galen's areas of expertise include natural resource inventories, wetland functional values assessment, habitat restoration and monitoring, and threatened and endangered species inventories and evaluations.

C. Mirth Walker, B.A. Wetlands Program Manager

Ms. Walker is an expert in conducting wetland determinations and delineations, performing natural resource inventories, and preparing wetland mitigation plans.

Paul A. Fishman, M.S., C.E.P. Senior Ecologist

Mr. Fishman has extensive experience in ecological studies and natural resource management.

APPENDICES

APPENDIX A: Wetland Summary Sheets

APPENDIX B: LWI: Background Information

APPENDIX C: Functional Values for Individual Wetlands Sites

APPENDIX D: Wetland Functions Assessment Criteria

APPENDIX E: Oregon Method Work Sheets: Wetland Characterization & Function and Condition

Unit 1 Upper Ash Creek

Unit 1, Upper Ash Creek, is located in the northeast corner of the study area, south of Taylor's Ferry Rd. and northeast of the intersection of Hall Blvd. and Oak St. Dominant land use surrounding Unit 1 is residential. Upper Ash Creek contains approximately 9 acres of wetlands including approximately 7 acres of forest and 2 acres of emergent wetlands. The width of the wetland corridor and adjacent uplands varies along this reach from approximately 10 feet to 400 feet. Ample undeveloped land occurs adjacent to C1 (agricultural land), C16 (forest), and C13 (Metzger Park, forest).

Wetlands in Unit 1 provide four important functions: wildlife habitat, aesthetic quality, water quality, and hydrologic control. Ash Creek and its adjacent diverse riparian and coniferous upland forests provide food, cover, and dispersal opportunities for wildlife attracting migratory and resident species. The riparian corridor is an amenity to the neighborhood and is particularly aesthetic when combined with adjacent upland forest habitat.

Contiguous wetlands located adjacent to Ash Creek, including forest, emergent, and pond, serve to retain sediments and nutrients during high water events benefitting down stream water quality; water quality is generally excellent at the upstream end of the unit and deteriorates as the stream flows through residential areas and receives stormwater runoff. The wetlands also provide hydrologic control by storing floodwaters and reducing peak flows.

Oregon Method Summary Sheet

Unit 1 Upper Ash Creek (North & South Forks)

Function	Evaluation Description	Rationale
Wildlife habitat	A	Stream corridor with permanent water & well developed riparian
Fish habitat	B	This reach provides habitat for shiners, dace, sucker, reticulate sculpin, & possibly cutthroat trout. Limited instream structure & dominance of surrounding residential commercial land use reduces fish habitat.
Water quality	A	Stream corridor with FO (43%) and EM (12%); contiguous wetlands trap sediment & nutrients.
Hydrologic control	A	Stream corridor provides runoff & flood storage opportunities; fluctuates with beaver dams, rainfall . . .
Sensitivity to impact	B	Urban stream corridor is potentially sensitive to impacts.
Enhancement potential	A	Soil minimally disturbed and most wetlands connected by stream.
Education	C	There are no schools within walking distance. Metzger Park only public land.
Recreation	B	Metzger Park (C13) provides recreation for the public.
Aesthetic quality	A	Most of Unit 1 is a stream corridor with limited noise and garbage.

Characteristic	Description
Physical characteristics of watershed or basin	gently sloping topography with 10 to 100 ft wide wetland corridor; small portion channelized. Ash creek is culverted for numerous road crossings and is dammed at C4,5. It includes 6.8 acres FO, 2.3 acres EM, and 0.2 acre OW.
Biological information	Provides fish and wildlife habitat along stream. Narrow buffers except upper end (C1,2) and Metzger Park (C13, C6).
Water quality	Ash creek has been rated moderate WQ condition by DEQ (1988). Upstream in headwaters (C1, C16) WQ appears excellent, no apparent algal blooms; downstream at lower end of unit, water is degraded.
Land use	Existing land use within 500 ft of wetland edge includes 27% forested, 60% residential & 13% commercial.

Unit 2 Lower Ash Creek

Unit 2, Lower Ash Creek, is located between SW Hall Blvd. and the Southern Pacific railroad line west of SW Greenburg Rd. Unit 2 begins at the southern end of Unit 1 and ends at the confluence of Ash Creek with Fanno Creek. Lower Ash Creek contains approximately 26 acres of wetlands including 5 acres of forest, 16 acres of emergent, and 5 acres of open water. Most of the wetlands occur in the Ash Creek floodplain with the exception of C9-11 and B13 which are physically isolated due to residential development.

Lower Ash Creek is one of the most disturbed wetland resource areas in Tigard. It is bisected by Hwy 217 and is also crossed by SW Greenburg Rd. Ash Creek traverses an area of mixed residential, commercial, and agricultural land uses. Agricultural land is rapidly becoming commercially developed; three sites (B9, B18, B21) have been filled since the 1989 wetland inventory.

Wetlands in Lower Ash Creek provide two primary functions: water quality and hydrologic control. Contiguous forested and emergent wetlands and ponds serve to retain sediments and nutrients during high water events. They benefit downstream water quality although it remains degraded due to runoff from pastures, and commercial and residential stormwater. Wetlands also provide hydrologic control by storing flood waters and reducing impacts of storm events.

Some individual wetlands provide unique functions. Two large forested wetlands (B10, C12) adjacent to Highway 217 provide a noise buffer and aesthetic view. Three ponds (B6,7, B8, B12) were created to mitigate for wetland fills related to adjacent development.

Oregon Method Summary Sheet

Unit 2 Lower Ash Creek

Function	Evaluation Description	Rationale
Wildlife habitat	B	Permanent water for wildlife is the most significant feature. Detractors include lack of vegetation diversity & structure, and Hwy 217
Fish habitat	B	Ash Creek offers potential fish habitat; ODFW notes red-sided shiners, large scale sucker, 3 spine stickleback, bluegill, pumpkinseed, & mosquito fish
Water quality	A	Stream corridor with EM (57%), FO (20%), OW (23%); contiguous wetlands trap sediment & nutrients
Hydrologic control	A	Stream corridor provides runoff & flood storage opportunities
Sensitivity to impact	B	Potentially sensitive
Enhancement potential	B	Soil compacted due to grazing practices & fill
Education	C	No schools in the vicinity; unlikely to be used for education
Recreation	C	Highway 217-too noisy (pond (B11) appreciated by adjacent business)
Aesthetic quality	B	Highway 217-too noisy; B10 & C12 provide a noise buffer and aesthetic view for Highway 217.

Characteristic	Description
Physical characteristics of watershed or basin	gently sloping topography with channeled stream corridor including 10 to 200 ft wide contiguous wetlands; major culverts at Hwy. 217 and Greenburg Rd.; includes 16 acres EM, 5 acres OW, & 5 acres FO.
Biological information	most disturbed unit due to development related to fills and Hwy 217
Water quality	Ash Creek has been rated moderate WQ condition by DEQ (1988); degraded due to runoff from agricultural lands and commercial and residential stormwater
Land use	existing land uses within 500 ft. of wetland edge include approximately 28% agricultural, 43% residential, and 28% commercial; the complex of wetlands north of Highway 217 have recently been altered.

Unit 3 Upper Fanno Creek

Unit 3, Upper Fanno Creek, is located in the northern end of the study area between S.W. Scholl's Ferry Rd. and S.W. Tiedeman Ave. It also includes a tributary, Hiteon Creek. Unit 3 contains approximately 32 acres of wetlands including 24 acres of emergent, 6 acres of forest, and 1.5 acres of open water. All of the wetlands occur adjacent to Fanno or Hiteon Creeks. The width of these contiguous wetlands varies from approximately 10 feet to 400 feet wide.

Fanno Creek separates residential uses on the west from industrial activities to the east. Dominant land use adjacent to Unit 3 is residential; there is also 23% industrial and 22% open space.

Wetlands in Unit 3 provide 5 important functions: wildlife habitat, water quality, hydrologic control, recreation, and aesthetic quality. Fanno Creek contains a broad floodplain, up to 400 feet wide, which provides a variety of food, cover, and water resources for wildlife. The floodplain provides hydrologic control by storing flood waters and reducing peak flows. Fanno Creek provides a fishery for native species such as dace, sculpin, and sucker; native cutthroat trout have also been observed upstream. Recreational opportunities are available at Englewood Park (B1, B2, B20). Public access and a trail system are developed with views of the wetlands.

Oregon Method Summary Sheet

Unit 3 Upper Fanno Creek and Hiteon Creek

Function	Evaluation Description	Rationale
Wildlife habitat	A	Permanent water, diverse habitat, structure, connectivity.
Fish habitat	B	Lack of instream cover and canopy coverage reduce fish habitat value.
Water quality	A	Stream corridor with EM (76%) and FO (19%); contiguous wetlands trap sediments & nutrients.
Hydrologic control	A	Stream corridor provides runoff & flood storage opportunities.
Sensitivity to impact	B	Potentially sensitive
Enhancement potential	A	Soil minimally disturbed; wetlands connected by stream.
Education	B	Safe access: Englewood Park; Fowler Junior High adjacent to southern boundary.
Recreation	A	Englewood Park, public access and trails (B1, B2, B19, B20)
Aesthetic quality	A	Most of Unit 3 is a stream corridor with limited noise and garbage.

Characteristic	Description
Physical characteristics of watershed or basin	gently sloping topography with 10 to 400 ft wide wetlands contiguous with stream; includes 24 acres EM, 6 acres FO, & 1.5 acres OW.
Biological information	Fanno Creek upstream of Tigard provides native cutthroat trout habitat
Water quality	Fanno Creek has been rated severe WQ condition by DEQ (1988)
Land use	Existing land use within 500 ft. of wetland edge includes 22% open space (park), 55% residential, and 23% industrial

Unit 4 Summer Creek and Two Unnamed Tributaries

Unit 4, Summer Creek, is located in the northwest corner of the study area between SW Scholl's Ferry Rd. and Tiedeman Ave. It includes Summer Creek and 2 unnamed tributaries. Unit 4 contains approximately 75 acres of wetlands including 41 acres forest, 0.5 scrub-shrub, 16 acres emergent, and 17 acres open water. Most of the wetlands are contiguous with the exception of A5, a portion of a tributary, which has become isolated due to residential development that culverted A6. Summer Creek is culverted at SW 135th St., SW 121st St., and SW 116th St. Abundant undeveloped land occurs adjacent to Summer Creek at A2, A3 (Summer Lake Park), and B17, and E34-36 (Fowler Jr. High). The tributaries are interrupted by numerous residential road crossings and bordered by dense residential development with limited adjacent uplands.

Unit 4 is one of the highest ranking wetland resource areas in Tigard. Wetlands provide 6 valuable functions: wildlife habitat, aesthetic quality, water quality, hydrologic control, education, and recreation.

Summer Creek and its adjacent diverse riparian and upland forests provide water, food, cover, and dispersal opportunities for wildlife, attracting a variety of migratory and resident species. Both Summer Lake Park and Fowler Jr. High wetlands are adjacent to large upland forests which increase their wildlife habitat value. These upland sites should be preserved to the greatest extent possible.

Summer Lake provides a warm water fishery of mostly non-native species including yellow perch, large-mouthed bass, pumpkin seed, bluegill, yellow bullhead, and mosquito fish. Summer Creek contains an assemblage of native species including red-sided shiner, speckled dace, large scale sucker, and reticulated sculpin (ODFW, 1994).

The Summer Creek floodplain is generally broad, up to 400 ft. wide, including a 9.5 acre pond at Summer Lake Park and 24 acres of forested wetlands in the vicinity of Fowler Jr. High. Contiguous wetlands benefit water quality by trapping nutrients and sediments. The large floodplain and adjacent wetlands provide hydrologic control by storing floodwaters and reducing peak flows.

Educational and recreational values are provided on 6 sites with public access and trail systems including Fowler Jr High (E34-36, B17), Roger Hart Memorial wetland (A5), Summer Lake Park (A3), and Summer Creek greenway (A7, A10). Fowler Jr. High has received restoration grants for habitat restoration of riparian vegetation along Summer Creek.

Restoration efforts have been integrated into student curriculum and include Himalayan blackberry removal, planting native trees and shrubs, irrigating and monitoring. Roger Hart Memorial wetland is maintained by The Wetlands Conservancy. Mary Woodward Elementary School is adjacent to A9 and within walking distance of A3 which provides safe and excellent access.

Oregon Method Summary Sheet

Unit 4 Summer Creek and Two Tributaries

Function	Evaluation Description	Rationale
Wildlife habitat	A	Permanent water, diverse habitat, structure, and connectivity.
Fish habitat	B	Summer Lake and Summer Creek provide a warm water fishery. Limited instream structure and dominance of residential land use reduce fish habitat value.
Water quality	A	Stream corridor with FO (55%), EM (22%), & OW (22%); contiguous wetlands trap sediments & nutrients.
Hydrologic control	A	Stream corridor provides runoff & flood storage opportunities.
Sensitivity to impact	B	Potentially sensitive
Enhancement potential	A	Soil minimally disturbed; wetlands connected by stream.
Education	A	Safe access; Fowler Junior High & Mary Woodward Elementary adjacent to Unit 4; Jr. High using stream for education & restoration project.
Recreation	A	Summer Lake Park (A3, Public access and trails); many trails to Fowler Junior High (B17, E34, E35).
Aesthetic quality	A	Stream corridor with limited noise and garbage and large adjacent uplands near Fowler Jr. High & Summer Lake Park.

Characteristic	Description
Physical characteristics of watershed or basin	gently sloping topography with broad flood plain and large pond (A3, Summer Lake); includes 42.5 acres forest, 0.5 acre scrub-shrub, 16.7 acres emergent, and 16.9 acres open water.
Biological information	Wildlife habitat rates high on most sites due to diversity of habitats, vegetation, structure and large adjacent uplands; fishery for intermediate tolerant native species such as dace, sculpin, and sucker.
Water quality	Summer Creek has been rated severe WQ condition by DEQ (1988); degraded due to residential stormwater runoff.
Land use	Existing land use within 500 ft of wetland edge includes 63% open space and 37% residential

Unit 5 Derry Dell Creek and a portion of Fanno Creek

Unit 5 includes "Derry Dell" Creek, a small tributary to Fanno Creek located between S.W. Gaarde St. north to its confluence with Fanno Creek and a small portion of Fanno Creek located between SW Tiedeman Ave. and Pacific Highway (99W). Derry Dell Creek is culverted for three road crossings including SW Walnut St., SW Eden Ct., and SW Pathfinder Way. Dominant land use adjacent to Unit 5 is residential; there is also 10% open space and 10% commercial development surrounding the Fanno Creek end of the unit.

Unit 5 contains approximately 9 acres of wetlands including 8 acres of forested and 1 acre of emergent wetlands. Abundant undeveloped land, approximately 23 acres, occurs adjacent to Fanno Creek (E5).

Wetlands in Unit 5 provide four important functions: wildlife habitat, aesthetic quality, water quality, and hydrologic control. Wildlife habitat is limited along Derry Dell Creek due to dense development and limited adjacent uplands; its rating improves in this unit due to Fanno Creek and its broader floodplain and larger adjacent uplands which provide water, food, and cover for a variety of resident and migratory wildlife species. Derry Dell Creek flows through a residential neighborhood and provides a noise and visual buffer for residents. The Fanno Creek portion provides similar benefits between residential and industrial land uses .

Contiguous forested and emergent wetlands serve to retain sediments and nutrients during high water events benefitting downstream water quality. The wetlands also provide hydrologic control by storing floodwaters and reducing peak flows.

Oregon Method Summary Sheet

Unit 5 Derry Dell Creek and a portion of Fanno Creek

Function	Evaluation Description	Rationale
Wildlife habitat	A	Permanent water with forested riparian community.
Fish habitat	B	Derry Dell Creek provides potential but limited fish habitat; Fanno provides fish habitat including cutthroat trout.
Water quality	A	Stream corridor with FO (86%) and EM (14%); contiguous wetlands trap sediments & nutrients.
Hydrologic control	A	Stream corridor provides runoff & flood storage opportunities.
Sensitivity to impact	B	Potentially sensitive
Enhancement potential	A	Soil minimally disturbed; wetlands connected by stream.
Education	C	Poor access; no schools adjacent to stream.
Recreation	C	No public access.
Aesthetic quality	A	Neighborhood stream corridor; enjoyed by residents.

Characteristic	Description
Physical characteristics of watershed or basin	gently sloping topography with 10 to 100 ft. wetland corridor; includes 7.5 acres FO and 1.2 acres EM
Biological information	provides narrow wildlife habitat corridor interrupted by residential road crossings; fanno creek provides fish habitat
Water quality	degraded due to residential and industrial stormwater runoff
Land use	existing land uses within 500 ft. of wetland edge include approximately 80% residential, 10% industrial, and 10% open space.

Unit 6 Red Rock Creek

Unit 6 includes the Red Rock Creek drainage which flows southwest from the Interstate 5/ Pacific Highway (99W) interchange to the Southern Pacific railroad line south of Highway 217. It contains 21 acres of wetlands including approximately 11 acres of forest, 7 acres of emergent, and 3 acres of open water. Expansive undeveloped land occurs adjacent to C15 where there is forested upland approximately 250 ft. on either side of the stream.

Red Rock Creek flows through forested residential areas east of SW 72nd Avenue and then through developed commercial and industrial areas. It is culverted for three major roads including Highway 217, SW Dartmouth Extension, and SW 68th Parkway.

Two valuable wetlands occur in Unit 6, E28 and E30. E28 is a large 11 acre Oregon ash forest with a centrally located pond. It provides wildlife habitat as well as noise and visual buffers from Highway 217. E30 is a unique biologic community; it is a relic tufted hairgrass wetland prairie community. The wetland prairie provides educational and enhancement opportunities and should be protected from any further impacts or fill activities. The prairie is currently maintained by The Wetlands Conservancy.

Red Rock Creek corridor is generally diverse and of high value for riparian wildlife, although wildlife value was reduced due to the proximity of Highway 217 and Highway 99. Contiguous wetlands serve to retain sediments and nutrients during high water events benefitting downstream water quality. The wetlands also provide hydrologic control by storing floodwaters and reducing peak flows. Adjacent forested hillslopes (C15) also contribute to wildlife habitat values and soil stability, preventing erosion and degradation of water quality.

Oregon Method Summary Sheet

Unit 6 Red Rock Creek

Function	Evaluation Description	Rationale
Wildlife habitat	B	Permanent water, stream corridor interrupted by major roads (Hwy 217, Dartmouth Ext., 68th Parkway); narrow wetlands corridor but broad buffer at C15.
Fish habitat	B	Stream provides potential fish habitat.
Water quality	A	Stream corridor withFO (40%), SS (30%), EM (20%), & OW (10%); contiguous wetlands trap sediments & nutrients.
Hydrologic control	A	Stream corridor provides runoff & flood storage opportunities.
Sensitivity to impact	B	Potentially sensitive
Enhancement potential	A	Soil minimally disturbed; wetlands connected by stream.
Education	C	Presently no developed access; unique habitat (E28, E30) adjacent to Highway 217.
Recreation	C	No access; adjacent to 217.
Aesthetic quality	C	E-28, E29, & E30 adjacent to noisy Highway 217, but provide a noise and visual buffer.

Characteristic	Description
Physical characteristics of watershed or basin	gently to moderately sloped topography; narrow riparian corridor with limited fringe wetlands except E28 & E30
Biological information	excellent wildlife habitat (C15, E28) due to permanent water and large adjacent forest habitat; unique plant community (E30).
Water quality	degraded due to commercial, industrial and residential runoff
Land use	existing land uses within 500 ft. of wetland edge include approximately 40% commercial, 30% industrial, 10% residential, and 10% open space.

Unit 7 Middle Fanno Creek

Unit 7, Middle Fanno Creek, includes the mainstem of Fanno Creek from S.W. Main St. (south of Highway 99W) southeast to S.W. Bonita Rd., two minor tributaries (E7,8, E17, E37, E38), and the mouth of Red Rock Creek south of the Southern Pacific Railroad line. Unit 7 contains approximately 54 acres of wetlands including 29 acres of forest, 21 acres of emergent, 1 acre of scrub-shrub, and 4 acres of open water. The width of the wetland corridor adjacent to Fanno Creek is approximately 400 feet. The tributary is a narrow wetland corridor approximately 10 to 25 feet wide.

The northern third of Unit 7, west of Hall Blvd., is within the greenway of Fanno Creek Park with safe access and a paved trail system. Fanno Creek Park wetlands (E6, E9-13) separate commercial and industrial land uses on the north from residential land use south of the park. East of Hall Blvd., Fanno Creek generally travels through residential and agricultural lands. Agricultural land on the south end of the unit north of Bonita Rd. is being replaced by commercial development. E22 has been filled since the 1989 inventory.

Unit 7 provides all 7 wetland functions evaluated for this project and was rated the highest for overall wetland functional values in the City of Tigard with Unit 9 (Tualatin River). The high rating of the wetlands was due to their large size, large adjacent undeveloped uplands, and public access and trail systems (Fanno Creek Park). Fanno Creek Park (E9-13) contains diverse wildlife habitat and access for recreation. Wildlife habitat also occurs in the middle of the unit east of Hall Blvd. and Fanno Creek where expansive uplands occur adjacent to the creek. The uplands include a large pasture and a large diverse mixed deciduous/coniferous woodland with two seasonal streams flowing through it. These large adjacent uplands increase wildlife habitat and aesthetic quality values of sites E14-16 and E18-21.

Oregon Method Summary Sheet

Unit 7 Middle Fanno Creek and 2 Minor Tributaries

Function	Evaluation Description	Rationale
Wildlife habitat	A	Permanent water, diverse habitat & structure, connectivity, interspersion.
Fish habitat	A	Fanno Creek provides fishery;
Water quality	A	Stream corridor with FO (53%), EM (40%), and OW (6%); contiguous wetlands trap sediments & nutrients.
Hydrologic control	A	Stream corridor provides runoff and flood storage opportunities.
Sensitivity to impact	B	Potentially sensitive
Enhancement potential	A	Soil compacted by horses/cattle in places; wetlands connected by stream.
Education	A	Public access in Fanno Creek Park; safe access.
Recreation	A	Developed trails and access at Fanno Creek Park.
Aesthetic quality	A	Stream corridor with limited noise and garbage.

Characteristic	Description
Physical characteristics of watershed or basin	gently sloping topography with approximately 400' wide wetland corridor; includes 29 acres FO, 21 acres EM, 1 acre SS, and 4 acres open water.
Biological information	provides diverse wildlife habitat with large adjacent undeveloped uplands (E14-16, E18-21).
Water quality	Fanno Creek has been rated severe WQ condition by DEQ (1988); degraded due to runoff from agricultural lands and commercial, industrial, and residential stormwater.
Land use	existing land uses within 500' of wetland edge include 30% residential, 25% open space, 22.5% commercial/industrial, and 22.5% agricultural.

Unit 8 Lower Fanno Creek and Lower Ball Creek

Unit 8 is located in the southeast corner of the study area south of S.W. Bonita Rd. south to the Oregon Electric Railroad line. It includes lower Fanno Creek and a portion of Ball creek between Interstate 5 and its confluence with Fanno Creek. All wetland sites with the exception of G15 are adjacent to the stream corridors. Unit 8 contains approximately 37 acres of wetlands including 24 acres of forest, 11 acres of emergent, and 2 acres of open water. The width of the wetland corridor adjacent to Fanno Creek is generally broad up to 600 feet wide. Ball Creek contains a much narrower, highly disturbed wetland corridor.

Fanno Creek flows south beneath S.W. Durham Rd. and beyond the Unified Sewerage Agency's treatment plant to the Tualatin River. It separates residential and agricultural land use on the west from agricultural and industrial uses to the east. This reach of Fanno Creek may have the greatest development pressure within the City due to the available open space and industrial zoning. As development occurs it is essential that adequate buffers are maintained to separate distinct land uses and protect wildlife habitat from industrial disturbance. If wetlands are adversely impacted by development, wetland mitigation is required by state and federal laws. Wetland mitigation should be prioritized to occur in the floodplain in agricultural areas, if possible, to avoid impacts to forested areas. Wetland creation in the floodplain can benefit several wetland functional values including wildlife habitat, fish habitat, water quality, hydrologic control, and aesthetic quality.

Abundant uplands occur adjacent to most of the wetland sites in this unit. These uplands include pastures and forests and provide wildlife habitat and natural buffers between stream and future development. A minimum 50 ft wide buffer should be preserved; wider buffers should be preserved where development can be concentrated adjacent to S.W. 74th Ave.

Oregon Method Summary Sheet

Unit 8 Lower Fanno Creek and Lower Ball Creek

Function	Evaluation Description	Rationale
Wildlife habitat	B	Permanent water, diverse habitat & structure. Reduced due to adjacent industrial uses.
Fish habitat	B	This reach of Fanno is surrounded by residential, commercial and industrial land use which reduces rating. The creek provides fish habitat.
Water quality	A	Stream corridor with FO (66%) and EM (29%) wetlands; contiguous wetlands trap sediments & nutrients.
Hydrologic control	A	Stream corridor provides runoff and flood storage opportunities.
Sensitivity to impact	B	Potentially sensitive to impacts.
Enhancement potential	A	Soils disturbed in some locations; generally minimally disturbed.
Education	C	G-14 is located near Durham Elementary school; otherwise unlikely to be used for education.
Recreation	C	No public access points; no trails.
Aesthetic quality	A	Most of Unit 8 is a stream corridor with limited noise and garbage.

Characteristic	Description
Physical characteristics of watershed or basin	gently sloping topography with varied wetland width up to approximately 600 ft; includes 24 acres FO, 11 acres EM, and 2 acres OW.
Biological information	provides fish and wildlife habitat; diverse adjacent uplands
Water quality	Fanno Creek has been rated severe WQ condition by DEQ (1988); degraded due to runoff from agricultural lands and industrial, residential, and commercial stormwater.
Land use	existing land uses within 500' of wetland edge include 45% industrial, 34% residential, 15% agricultural, 3% forest, and 3% commercial.

Unit 9 Tualatin River

Unit 9 is located in the southern end of the study area between Highway 99W and S.W. 85th Ave. in the vicinity of the Tualatin River. It contains approximately 36 acres of wetlands including 11 acres of forest, 15.5 acres of emergent and 10 acres of open water. Most of the sites are centered around Cook Park (F15-21, F26) which includes a mix of uplands and wetlands near the river, and natural, agricultural and mitigation ponds on a terrace above the floodplain. This reach also includes a small forested wetland (F22) and an emergent wetland (F23) located in the floodplain upstream from Cook Park. Uplands adjacent to these upstream sites have been reduced by dense residential development on top of the hillslopes north of the floodplain.

Unit 9 wetlands rated the highest with Unit 7 (Middle Fanno Creek) in the City of Tigard for overall wetland functional values. The high ratings of the wetlands are due to their large size, large adjacent uplands, and excellent public access and developed trail systems. The large expanse of diverse wetlands and uplands adjacent to the river provide excellent wildlife habitat for large and small, resident and migratory species. Natural (F15, F16), mitigation (F17-19), and agricultural ponds (F26) north and east of Cook Park also provide amphibian breeding habitat and waterfowl wintering and nesting habitat. Public parking, a boat ramp, and dock are available at the park. There are numerous soft paths that wind through the natural areas of the park and a paved bicycle trail that parallels the river. Educational opportunities are also important; Tigard High School is located immediately north and within walking distance of Cook Park.

Natural areas within the park should remain undeveloped. Enhancement opportunities within Unit 9 are plentiful. Removal of Himalayan blackberry would provide an opportunity for the native shrub and understory species to develop; native species could also be planted once blackberry is removed.

Oregon Method Summary Sheet

Unit 9 Tualatin River Flood Plain

Function	Evaluation Description	Rationale
Wildlife habitat	A	Permanent water, diverse habitat & structure, connectivity.
Fish habitat	A	The Tualatin River provides habitat for cutthroat trout, stocked salmon, N. squawfish, large scale sneekers, blue gull, and largemouth bass (ODFW, 1994).
Water quality	A	Flood plain with FO (45%) and EM (33%); contiguous wetlands trap sediments and nutrients.
Hydrologic control	A	Flood plain provides runoff & flood storage opportunities.
Sensitivity to impact	B	Potentially sensitive.
Enhancement potential	A	Soil is minimally disturbed; most wetlands located within 100 yr flood plain of the Tualatin River.
Education	A	Tigard High School is located just north of Cook Park. Trails and safe access already established.
Recreation	A	Most of Unit 9 is located in the Tualatin River Greenway or Cook Park. Public access and trails are already established.
Aesthetic quality	A	Tualatin River Greenway contains generally a quiet, well developed riparian corridor.

Characteristic	Description
Physical characteristics of watershed or basin	generally flat, broad Tualatin River flood plain; includes approximately 11 acres FO, 15.5 acres EM, 10 acres OW
Biological information	provides fish and wildlife habitat; vegetation and habitat diverse with excellent interspersion.
Water quality	Tualatin River has been rated severe WQ condition by DEQ (1988).
Land use	existing land uses within 500' of wetland edge include 67% agricultural and 33% open space.

Unit 10 Short Tributaries to Tualatin River

Unit 10 is one of the smallest wetland resource sites in the City of Tigard. It includes two small tributaries that flow through residential neighborhoods directly into the Tualatin River, an isolated stormwater detention pond (F24), and four isolated golf course ponds (F13,14, F1,2). One of the tributaries is unnamed (F3-8). It originates on the golf course north of Durham Rd. and flows south through a forested riparian corridor to the river. The stream contains a narrow floodplain with limited contiguous emergent and forested wetlands. Abundant upland forests and agricultural lands occur adjacent to the stream. Copper Creek (F25) is a narrow riparian corridor dominated by western red cedar and red alder. It flows through a densely developed residential neighborhood. Both tributaries have no public access and consequently rate low for educational and recreational values. The unnamed tributary is less developed and consequently provides greater wildlife and aesthetic values. Future development in this area needs to protect water resources and wildlife travel corridors. Buffers along this stream should be placed a minimum of 50 feet from the wetland edge or 25 feet from the top of the hillslope adjacent to the floodplain to prevent erosion and water quality declines in the stream.

Oregon Method Summary Sheet

Unit 10 Short Tributaries to the Tualatin River

Function	Evaluation Description	Rationale
Wildlife habitat	A	Permanent water, diverse habitat & structure, connectivity.
Fish habitat	B	Tributaries provide potential fish habitat. It is unknown whether fish are present.
Water quality	A	Unnamed tributary's contiguous wetlands trap sediments and nutrients.
Hydrologic control	A	Stream corridor provides runoff & flood storage opportunities.
Sensitivity to impact	B	Potentially sensitive.
Enhancement potential	A	Soil is minimally disturbed; wetlands connected by stream.
Education	C	No access; no schools adjacent; unlikely to be used for education.
Recreation	C	No access points or boat launch present.
Aesthetic quality	A	Stream corridor with limited noise and garbage.

Characteristic	Description
Physical characteristics of watershed or basin	moderate gradient with narrow wetland fringe; includes approximately 6 acres of wetlands: 2.8 OW, 1.8 FO, and 1.5 EM.
Biological information	wildlife habitat rates high due to diversity of habitats, vegetation structure, adjacent uplands, and permanent water.
Water quality	WQ has not been rated by DEQ; degraded due to residential stormwater runoff.
Land use	existing land use within 500 ft of wetland edge includes 53% residential, 37% agricultural, and 10% forest.

Unit 11 Pinebrook Creek and Four Ponds

Unit 11 is the smallest wetland resource unit in the City of Tigard. It contains approximately 1.3 acres of wetlands and a narrow stream corridor: Mallard Lakes ponds (F9,10) and Pinebrook Creek (F27). Mallard Lakes development ponds have been created by damming the headwaters to Pinebrook Creek. The ponds contain a variety of emergent vegetation and are surrounded by a narrow band of trees, shrubs, and mowed lawn. Even though the ponds are isolated by dense residential development, they provide wildlife habitat and attract mallards, belted kingfisher, and other riparian species. These ponds provide recreational and educational opportunities for the neighborhood; a walking trail circles F10 and connects to an unmaintained trail that winds downstream along Pinebrook Creek. Pinebrook Creek contains a narrow riparian corridor. The forest canopy is dominated by western red cedar and red alder; the understory contains limited vegetation due to uncontrolled trail use.

Oregon Method Summary Sheet

Unit 11 Pinebrook Creek and farm ponds, neighborhood ponds

Function	Evaluation Description	Rationale
Wildlife habitat	B	Permanent water and a forested riparian canopy are significant habitat features. Detractors are limited vegetation diversity and structure.
Fish habitat	B	Pinebrook Creek and Mallard Lakes Pond provide potential fish habitat. It is unknown whether fish are present. It is unlikely fish are in Pinebrook Creek.
Water quality	B	Stream corridor is in a residential area.
Hydrologic control	B	Stream corridor provides runoff and flood storage opportunities.
Sensitivity to impact	B	The ponds were created as a residential amenity. The stream corridor has been impacted by pedestrian use.
Enhancement potential	B	Soil compacted due to pedestrians (F-27) and pond creation (F-9, F-10).
Education	B	No schools in the vicinity. Mallard Lakes Pond may be used by neighborhood for education.
Recreation	B	Neighborhood use; trail (F-27) developed trail (F-9, F-10).
Aesthetic quality	B	Limited garbage, natural sounds and odors dominate.

Characteristic	Description
Physical characteristics of watershed or basin	moderate gradient stream; includes approximately 1.3 acres of open water wetlands and a stream corridor.
Biological information	provides fish and wildlife habitat; food, cover, and water resources are present
Water quality	degraded due to residential stormwater runoff.
Land use	existing land use within 500 ft of wetland edge includes 100% residential.

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WETLAND SUMMARY SHEETS

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FUNCTIONAL VALUES FOR INDIVIDUAL WETLANDS

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APPENDIX A:

WETLAND SUMMARY SHEETS

WETLAND SUMMARY SHEET

UNIT: 1	**WETLAND:** C-1, 2	**Wetland Acreage:** 2.15 (PEM)	**Field Date:** 8/29/94
Location: Ash Creek N of SW Cedarcrest Street		Beaverton Quadrangle	T1S R1W **Sec.:** 25
Tax Map: 15125CB		**Zoning:** R-15	**Aerial: NE**

NWI Classification: PEM, R **WWHA Score: 65**

Mapped Soils: 42 Verboort SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** North Fork Ash Creek

Hydrologic Source/Comments: stream, precipitation; milky brown with algae.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Crataegus douglasii* *Salix sp.* *(Rubus discolor)*	*Carex sp.* *Echinochloa crusgalli* *Juncus effusus* *Phalaris arundinacea* *Polygonum sp.*

Boundary Information: Mowed agricultural field; wetland extends north of channel ≈50 ft into agricultural field; slight topographic break; vegetation changes from sedge → Himalayan blackberry and mowed grasses.

Buffer Information: Standard 25 ft min.

Comments: Ash Creek, perennial stream and adjacent wetlands; a dense forest canopy over stream north of agricultural field is dominated by Oregon ash and white oak.

WETLAND SUMMARY SHEET

UNIT: 1	**WETLAND:** C-3	**Wetland Acreage:** 1.70 (PFO)	**Field Date:** 8/29/94
Location: Ash Creek SW of Cedarcrest/SW 82nd Ave.		Beaverton Quadrangle	T1S R1W **Sec.:** 25
Tax Map: 15125 CB, CC, CD		**Zoning:** Res	**Aerial: NE**

NWI Classification: PFO, R **WWHA Score: 57**

Mapped Soils: 42 Verboort SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** North Fork Ash Creek

Hydrologic Source/Comments: Ash Creek, perennial, channelized, broken concrete along banks; riparian vegetation provides cover (nearly 100%) over stream except where channelized.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sp.*	*Carex obnupta*
Snag	*(Rubus discolor)*	*Solanum dulcamara*
		Phalaris arundinacea
		Glyceria sp.

Boundary Information: Topographic break; vegetation changes from ash, willow, sedge, and nightshade to → mowed lawn and Himalayan blackberry.

Buffer Information: Standard 25 ft min.

Comments: Ash Creek, perennial stream with pockets of adjacent wetlands dominated by Oregon ash, sedge, and reed canarygrass; cluster of 7 mature Douglas fir trees west of the stream - no understory; dirt piles and mowed lawn below Douglas fir; garbage dumped in wetland to make dry path in spring.

WETLAND SUMMARY SHEET

UNIT: 1	**WETLAND:** C-4, 5	**Wetland Acreage:** 0.15 (POWh)	**Field Date:** 8/29/94
Location: Northeast of SW Hall/Hemlock		Beaverton Quadrangle	T1S R1W **Sec.:** 25
Tax Map: 15125CD, CC		**Zoning:** Res	**Aerial: NE**

NWI Classification: R, POWh **WWHA Score: 34**

Mapped Soils: 42 Wapato SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** North Fork Ash Creek

Hydrologic Source/Comments: Stormwater runoff → stream; pond water milky brown.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra		*Scirpus acutus*
Fraxinus latifolia		*Scirpus microcarpus*
		Juncus effusus
		Typha latifolia
		Lotus corniculatus

Boundary Information: distinct topographic break, steep bank; vegetation changes from red alder, bulrush, and rush to → English ivy, mowed lawn velvet grass, snowberry, bullthistle, and tansy ragwort.

Buffer Information: Standard 25 ft min.

Comments: man-made cement pond (C-4) and perennial stream; pond (C-5) without adjacent vegetation or cover; red alder scattered along stream; concrete walkway - east of stream; concrete spillway out of pond (no fish passage); stream flows out through three 4 ft culverts. Domestic geese and mallard common.

WETLAND SUMMARY SHEET

UNIT: 1	**WETLAND:** C-6, 7	**Wetland Acreage:** 3.36 (PFO)	**Field Date:** 8/29/94
Location: Trib. to Ash Creek; SW 80th/Elmwood		Beaverton Quadrangle	T1S R1W **Sec.:** 25
Tax Map: 15125 CC, CD		**Zoning:** Res	**Aerial: NE**

NWI Classification: R, PFO **WWHA Score: 70**

Mapped Soils: 42 Wapato SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** South Fork Ash Creek

Hydrologic Source/Comments: Ash Creek; perennial; clear running water with canopy, rocks, silt.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sp.*	*Phalaris arundinacea*
Alnus rubra	*Spirea douglasi*	*Solanum dulcamara*
Salix lasiandra	*(Rubus discolor)*	*Polygonum sp.*
Populus trichocarpa	*Rosa sp.*	*Typha latifolia*
Thuja plicata		*Echinochloa crusgalli*

Boundary Information: distinct topographic break; vegetation changes from reed canarygrass → mowed lawns, Oregon white oak, hazelnut, and Himalayan blackberry

Buffer Information: Standard 25 ft min.

Comments: Ash Creek, perennial stream with adjacent wetlands; very diverse vegetation to the west; high wildlife habitat values. Channel > 50% covered, incised.

WETLAND SUMMARY SHEET

UNIT: 1	**WETLAND:** C-8	**Wetland Acreage:** 1.71 (PFO)	**Field Date:** 9/20/94
Location: SW 74th Ave./Elmwood St.		Beaverton Quadrangle	T1S R1W **Sec.:** 25
Tax Map: 15125 CD, DC		**Zoning:** R-4.5	**Aerial: NE**

NWI Classification: PFO, R, (POWx, very small) **WWHA Score: 72**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** South Fork Ash Creek

Hydrologic Source/Comments: Ash Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia		*Phalaris arundinacea*
Alnus rubra		*Typha latifolia*
Thuja plicata		*Solanum dulcamara*
		Ranunculus sp.

Boundary Information: generally slight topographic break; abrupt topographic break in places; vegetation changes to mowed lawns and Douglas fir.

Buffer Information: Standard 25 feet min.

Comments: Ash Creek, perennial stream, pond and wetland; high wildlife habitat value. The site supports diverse vegetation and structure. Vegetation is dominated by Oregon ash, reed canarygrass, cattail, climbing nightshade, and buttercup. A number of snags are present due to past beaver activity; beaver were removed by ODFW.

WETLAND SUMMARY SHEET

UNIT: 1	**WETLAND:** C-13	**Wetland Acreage:** Stream	**Field Date:** 8/29/94
Location: Ash Creek between SW Hemlock/Locust		Beaverton Quadrangle	T1S R1W **Sec.:** 25
Tax Map:	**Zoning:** Park		**Aerial: NE**

NWI Classification: R **WWHA Score: 56**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: Ash Creek - water brown; clear in shallows, algae abundant

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*(Rubus discolor)*	*Solanum dulcamara*
Alnus rubra	*Rose sp.*	
Populus trichocarpa (5 ft + dbh)		

Boundary Information: vegetation changes → gravel, parking lot, English ivy, Himalayan blackberry, and mowed lawn; distinct topographic break

Buffer Information: Standard 25 ft min.

Comments: Ash Creek, perennial stream with adjacent park and trails; magnificent black cottonwood trees. Excellent interspersion to coniferous woodland at Metzger Park. Enhancement of understory forest vegetation would enhance wildlife values.

WETLAND SUMMARY SHEET

UNIT: 1	**WETLAND:** C-14	**Wetland Acreage:** Stream	**Field Date:** 8/29/94
Location: Ash Creek downstream from Metzger Park		Beaverton Quadrangle	T1S R1W **Sec.:** 36
Tax Map:	**Zoning:** Res		**Aerial: NE**

NWI Classification: R **WWHA Score: 40**

Mapped Soils: 43 Wapato SiCL, 42 Verboort SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: Stream, disturbed banks, channelized.

Dominant Vegetation: (Vegetation sparse)

Trees	Shrubs	Herbs/Emergents
Alnus rubra	*(Rubus discolor)*	*Solanum dulcamara*
Fraxinus latifolia	*Rose sp.*	

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry

Buffer Information: Standard 25 ft min.

Comments: Stream, sparsely vegetated, low quality habitat. Himalayan blackberry dominates the adjacent hillslopes. Human disturbance is high.

WETLAND SUMMARY SHEET

UNIT: 1	**WETLAND:** C-16	**Wetland Acreage:** Stream	**Field Date:** 8/29/94
Location: Ash Creek N of SW Ventura Drive		Lake Oswego Quadrangle	T1S R1W **Sec.** 25
Tax Map:		**Zoning:** R-4.5/C-P	**Aerial: NE**

NWI Classification: R **WWHA Score: 59**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** South Fork Ash Creek

Hydrologic Source/Comments: Ash Creek, perennial stream, rocks, riffle/pool, steep gradient, clear water.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Thuja plicata		
Alnus rubra		

Boundary Information: Steep topographic break; vegetation changes to landscaped backyards and/or Himalayan blackberry

Buffer Information: Adjacent forest, steep slopes - already developed; maintain as is. Standard 25ft min.

Comments: Ash Creek, perennial stream, high wildlife habitat, trout (according to resident); high scenic and aesthetic values, sandwiched between residences; nice canopy above stream. Buffer limited due to residences.

WETLAND SUMMARY SHEET

UNIT: 2	**WETLAND:** B-6, 7	**Wetland Acreage:** 9.5 (8ac PEM, 1.5ac POWx)	**Field Date:** 8/29/94
Location: SW of Hall Blvd./Oak St.		Beaverton Quadrangle T1S R1W **Sec.** 35	
Tax Map: 15135 AC, AD		**Zoning:** R-4.5	**Aerial: NE**

NWI Classification: R, POWx, PEM **WWHA Score: 54**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: precipitation; Ash Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sp.*	grass (grazed)
Populus trichocarpa	*Rosa nutkana*	*Juncus effusus*
	Crataegus douglasi	

Boundary Information: Topographic break → (fill); vegetation changes to snowberry, white oak

Buffer Information: Standard 25 ft min.

Comments: Ash Creek, channelized perennial stream, excavated pond, agricultural wetlands; disturbed by fill. Diverse group of raptors (merlin, RT, kestrel, sharp-shinned) and wetland species (belted kingfisher, wood duck, great blue heron) observed by SRI in 1989; adjacent woodland. North of noisy Highway 217.

WETLAND SUMMARY SHEET

UNIT: 2	**WETLAND:** B-8	**Wetland Acreage:** 1.88 (POWx)	**Field Date:** 8/29/94
Location: N of Highway 217, W of SW 89th Ave.		Beaverton Quadrangle T1S R1W	**Sec.** 35
Tax Map: 15135 AD		**Zoning:** R-4.5, C-P	**Aerial: NE**

NWI Classification: POWx (3 islands in pond) **WWHA Score: 28**

Mapped Soils: 22 Huberly SiL, 42 Verboort SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: Precipitation, stream

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
	Crataegus douglasi *Rosa nutkana*	*Phalaris arundinacea*

Boundary Information: distinct topographic break, edge of pond.

Buffer Information: Standard 25 ft min.

Comments: Mitigation pond with no riparian vegetation. Abundant fill material in surrounding area. Enhancement of tree/shrub cover surrounding pond would be appropriate. Interspersion with B-10 and connected to B-7 (Ash Creek) by a ditch. North of noisy Highway 217.

WETLAND SUMMARY SHEET

UNIT: 2	**WETLAND:** B-10	**Wetland Acreage:** 1.02 (PFO)	**Field Date:** 8/29/94
Location: N of Highway 217, W of SW 89th Ave.		Beaverton Quadrangle T1S R1W **Sec.** 35	
Tax Map: 15135 AD		**Zoning:** R-4.5, C-P	**Aerial: NE**

NWI Classification: PFO **WWHA Score: 59**

Mapped Soils: 13, Cove SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: Seasonally wet; ditch north of site.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Rubus discolor*	*Equisetum sp.*

Boundary Information: Topographic break → fill material; vegetation changes to Himalayan blackberry and pasture land.

Buffer Information: Standard 25 ft min.

Comments: A deciduous, seasonally wet, primarily Oregon ash wetland with dense understory of blackberry and horsetail. Immediately north of noisy Highway 217. A small, seasonal channelized stream runs adjacent to the site.

WETLAND SUMMARY SHEET

UNIT: 2	**WETLAND:** B-11	**Wetland Acreage:** 0.17 (POWx)	**Field Date:** 8/29/94
Location: SW of 95th Ave/Oak St. N of Hwy 217		Beaverton Quadrangle T1S R1W **Sec.** 35	
Tax Map: 15135 AC, BD		**Zoning:** C-P	**Aerial: NE**

NWI Classification: POWx **WWHA Score: 22**

Mapped Soils: 22 Huberly SiL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: Outfall from under building; algae abundant.

Dominant Vegetation: (limited cover)

Trees	Shrubs	Herbs/Emergents
Weeping willow	*Salix sp.*	*Equisetum sp.* *Juncus effusus* *Phalaris arundinacea* *Solanum dulcamara*

Boundary Information: distinct topographic break; steep banks - rocky; vegetation changes to Himalayan blackberry and lawn.

Buffer Information: Standard 25 ft min.

Comments: Pond sparsely vegetated; two weeping willows. 85 mallards fed by adjacent business employees. North of noisy Highway 217.

WETLAND SUMMARY SHEET

UNIT: 2 **WETLAND:** B-12 **Wetland Acreage:** 1.19 (0.59ac POWx, 0.60ac PEM) **Field Date:** 8/29/94

Location: SW of 95th Ave/Oak St. north of Hwy 217 Beaverton Quadrangle T1S R1W **Sec.** 35

Tax Map: 15135 AC, BD **Zoning:** C-P **Aerial: NE**

NWI Classification: POWx, PEM **WWHA Score: 45**

Mapped Soils: 42 Verboort SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: Runoff

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
	(Rubus discolor)	*Typha latifolia*
	Salix sp.	*Phalaris arundinacea*
		Bidens cernua

Boundary Information: Fill slope; vegetation changes to Himalayan blackberry, Scot's broom.

Buffer Information: Standard 25 ft. min.

Comments: Pond and emergent wetland. Vegetation is dominated by willow, cattail, reed canarygrass and nodding begar's tick. Wetland dependent species (long-billed marsh wren, wood duck, and belted kingfisher) observed. North of noisy Highway 217.

WETLAND SUMMARY SHEET

UNIT: 2	**WETLAND:** B-13	**Wetland Acreage:** 0.29 (PEM)	**Field Date:** 6/6/95
Location: SW of Greenburg/Highway 217		Beaverton Quadrangle T1S R1W **Sec.** 35	
Tax Map:		**Zoning:** I-P	**Aerial: NE**

NWI Classification: PEM **WWHA Score: 6**

Mapped Soils: non-hydric; sampled soils: 8-16" (silty clay, 10YR 4/1, dark gray w/few mottles)

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: seep

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
		Carex densa *Agrostis tenuis* *Lolium perenne* *Lotus corniculatus* *Juncus effusus* trace amounts of: *Holcus lanatus, Juncus ensifolius, Alopecurus pratensis, Alopecurus geniculatus, Festuca rubra*

Boundary Information: distinct topographic break and roadway.

Buffer Information: Standard 25 ft. min.

Comments: This site is a small wetland with an interesting assemblage of native species including sedges, rushes, and grasses. South of noisy Highway 217.

WETLAND SUMMARY SHEET

UNIT: 2 **WETLAND:** B-14 **Wetland Acreage:** 6.09 (5ac PEM, 1ac POW) **Field Date:** 8/29/94

Location: S of 217; SE of Shady Lane/Greenburg Rd. Beaverton Quadrangle T1S R1W **Sec.** 35

Tax Map: 15135 BD, CA **Zoning:** I-P Greenway **Aerial: NE**

NWI Classification: R, PEM, POW WWHA Score: 60

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: Ash Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia (dead adj to channel)	*Salix sp*	*Phalaris arundinacea*
	Spiraea douglasi	*Solanum dulcamara*

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry, mowed lawn, backyards

Buffer Information: Standard 25 ft min. Gentle slope, mowed.

Comments: Perennial stream with adjacent wetlands; logs in water; channel silted in; steep and gentle banks. Vegetation is dominated by scattered willow with spirea, reed canarygrass, and climbing nightshade. Wood ducks appear to nest here. South of noisy Highway 217.

WETLAND SUMMARY SHEET

UNIT: 2 **WETLAND:** B-15 **Wetland Acreage:** 0.28 (PEM) **Field Date:** 8/29/94

Location: SW of Cascade Blvd./Greenburg Rd. Beaverton Quadrangle T1S R1W **Sec.** 35

Tax Map: 15135 BC **Zoning:** I-P **Aerial: NE**

NWI Classification: PEM **WWHA Score: 27**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: Stormwater runoff; precipitation; No surface water present during survey; abundant animal tracks in mud.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra	*Salix sp*	*Phalaris arundinacea* *Dipsacus sylvestris* *Veronica americana* *Typha latifolia* *Juncus effusus*

Boundary Information: distinct topographic break at the edge of rock fill; vegetation changes to morning glory and Himalayan blackberry.

Buffer Information: Standard 25 ft min.

Comments: Ditch and small stagnant water quality treatment pond, little wildlife value. Surrounded by industrial/commercial land use.

WETLAND SUMMARY SHEET

UNIT: 2	**WETLAND:** B-16	**Wetland Acreage:** 0.19 (PEM)	**Field Date:** 8/29/94
Location: Ash Creek W of SW Greenburg Rd.		Beaverton Quadrangle T1S R1W **Sec.** 35	
Tax Map: 15135 BC		**Zoning:** I-P	**Aerial: NE**

NWI Classification: PEM, R

WWHA Score: 44

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno Creek

Sub-basin: Ash Creek

Hydrologic Source/Comments: Ash Creek

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
Fraxinus latifolia	*Salix sitchensis* *(Rubus discolor*	*Phalaris arundinacea* *Solanum dulcamara* *Lotus corniculatus*

Boundary Information: Steep banks, channelized creek; vegetation changes to Himalayan blackberry

Buffer Information: Standard 25 ft min.

Comments: mouth of Ash Creek, perennial stream with adjacent wetlands; stream is channelized through commercial development. Tires in channel and garbage. Some occasional willow clumps shading channel.

WETLAND SUMMARY SHEET

UNIT: 2	**WETLAND:** C-9	**Wetland Acreage:** 1.75 (1.25ac PEM, 0.5ac PFO)	**Field Date:** 9/20/94
Location: E of Hall & S of SW Spruce		Beaverton Quadrangle T1S R1W **Sec.** 36	
Tax Map: 15135 AD, CD		**Zoning:** Res	**Aerial: NE**

NWI Classification: PFO, R, PEM **WWHA Score: 49**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: precipitation, stream.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*(Rubus discolor)*	*Phalaris arundinacea*
	Spirea douglasii	*Juncus effusus*
	Crataegis douglasii	*Holcus lanatus*
	Cornus stolonifera	

Boundary Information: Vegetation changes from reed canarygrass to Himalayan blackberry, Douglas fir, and red hawthorn

Buffer Information: Standard 25 ft min.

Comments: Wetland forest and ditch with adjacent emergent area. Vegetation is dominated by Oregon ash and a monoculture of reed canarygrass.

WETLAND SUMMARY SHEET

UNIT: 2	**WETLAND:** C-10, 11	**Wetland Acreage:** 0.45 (PEMx)	**Field Date:** 9/20/94
Location: SW 78th Ave./Spruce St.		Beaverton Quadrangle T1S R1W	**Sec.** 36
Tax Map: 15135 CA		**Zoning:** R-25	**Aerial: NE**

NWI Classification: PEMx **WWHA Score: 23**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: Depression area fed by intermittent stream.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia		*Typha latifolia* *Juncus effusus* *Phalaris arundinacea* *Oenanthe sarmentosa* *Veronica americana* *Holcus lanatus*

Boundary Information: Slight topographic break; vegetation changes from cattails and reed canarygrass to tall fescue

Buffer Information: Standard 25 ft. min.

Comments: Intermittent stream emergent wetlands of low wildlife habitat value. Vegetation is dominated by Oregon ash, cattail, soft rush, and reed canarygrass. Site is located in a residential neighborhood.

WETLAND SUMMARY SHEET

UNIT: 2	**WETLAND:** C-12	**Wetland Acreage:** 3.02 (PFO)	**Field Date:** 8/29/94
Location: S of Hwy 217 & N of North Dakota St.		Beaverton Quadrangle T1S R1W **Sec.** 35	
Tax Map:		**Zoning:** C-P	**Aerial: NE**

NWI Classification: PFO **WWHA Score: 54**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Ash Creek

Hydrologic Source/Comments: precipitation.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sp.*	*Carex obnupta*
	Rosa sp	*Equisetum sp.*

Boundary Information: to the North: Highway 217; west: the vegetation changes to ponderosa pine

Buffer Information: Standard 25 ft. min.

Comments: C-12 is a seasonal Oregon ash wetland with a slough sedge and horsetail understory. It is located adjacent to noisy Highway 217 which reduces its wildlife habitat value.

WETLAND SUMMARY SHEET

UNIT: 3	**WETLAND:** B-1	**Wetland Acreage:** Stream	**Field Date:** 9/13/94
Location: Hiteon Creek from Scholl's Ferry Rd. to SW Springwood		Beaverton Quadrangle T1S R1W	**Sec.** 34
Tax Map:		**Zoning:** R-12, R-4.5 Park	**Aerial: NW**

NWI Classification: R **WWHA Score: 25**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Fanno Creek

Hydrologic Source/Comments: Hiteon Creek, perennial stream (Fanno Ck trib.)

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
	Salix sp. (scattered)	*Typha latifolia*
	Rosa sp	*Juncus effusus*
		Phalaris arundinacea

Boundary Information: vegetation changes to mowed lawns, maintained by park.

Buffer Information: Standard 25ft min.

Comments: B-1 is a channelized, perennial stream (Hiteon Creek) that is a tributary to Fanno Creek. Riparian vegetation is dominated cattail, soft rush and reed canarygrass. There is a paved recreation trail adjacent and limited garbage.

WETLAND SUMMARY SHEET

UNIT: 3 **WETLAND:** B-2 **Wetland Acreage:** 4.5 (1ac PFO, 2ac PEM, 1.5ac POW) **Field Date:** 9/13/94

Location: Englewood Pk from SW Springwood to SW Ponderosa Beaverton Quadrangle T1S R1W **Sec.** 34

Tax Map: 15134 AC **Zoning:** R-4.5 (PD) **Aerial: NW**

NWI Classification: R, PEM, PFO, POW **WWHA Score: 76**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Fanno Creek (Hiteon Creek)

Hydrologic Source/Comments: Fanno Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra		*Solanum dulcamara*
Fraxinus latifolia		
Thuja plicata		

Boundary Information: distinct topographic break; vegetation dominance changes to Himalayan blackberry

Buffer Information: Standard 25 ft min.

Comments: Perennial stream with ponded areas and adjacent wetlands; vegetation is stratified and diverse consisting of red alder, Oregon ash, western red cedar, and blackberry; high wildlife habitat recreation, and aesthetic values.

WETLAND SUMMARY SHEET

UNIT: 3 **WETLAND:** B-3 **Wetland Acreage:** 14.11 (PEM) **Field Date:** 8/29/94

Location: Fanno Ck: SW Scholl's Ferry to N Dakota St. Beaverton Quadrangle T1S R1W **Sec.** 34

Tax Map: 15134 AD, 15135 BC **Zoning:** I-P Greenway **Aerial: NW**

NWI Classification: PEM, R **WWHA Score: 66**

Mapped Soils: 43 Wapato SiCL, 13 Cove SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Fanno Creek

Hydrologic Source/Comments: Fanno Creek, permanent stream ≤ 10 ft wide.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Crataegus douglasi	*Rubus discolor*	*Phalaris arundinacea*
Fraxinus latifolia	*Salix sp.*	*Solanum dulcamara*

Boundary Information: distinct topographic break; dominant vegetation changes to ponderosa pine, Himalayan blackberry, and white oak.

Buffer Information: standard 25 ft. min.

Comments: Fanno Creek, perennial stream (approximately 10 ft wide) with adjacent emergent wetlands; canopy cover over stream scattered; high wildlife habitat; interspersion with creek and oak grove to the east.

WETLAND SUMMARY SHEET

UNIT: 3 **WETLAND:** B-4 **Wetland Acreage:** 3 (2ac PFO, 1ac PEM) **Field Date:** 8/29/94

Location: Fanno Ck: SW Tigard St. to N Dakota St. Beaverton Quadrangle T1S R1W **Sec.** 35

Tax Map: 15134 DA, DD; 15135 BC, CB **Zoning:** I-P Greenway **Aerial: NW**

NWI Classification: PEM, PFO, R **WWHA Score: 62**

Mapped Soils: 43 Wapato SiCL.

Hydrologic Basin: Fanno Creek **Sub-basin:** Fanno Creek

Hydrologic Source/Comments: Fanno Creek, perennial stream; precipitation, base of slope seep

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Rubus discolor* *Spiraea douglasi*	*Phalaris arundinacea* *Impatiens capensis*

Boundary Information: distinct topographic break; dominant vegetation changes to Himalayan blackberry

Buffer Information: Standard 25 ft. min.

Comments: Fanno Creek is a perennial stream with a narrow band of fringing wetlands. Vegetation is dominated by Oregon ash, spirea, blackberry, and reed canarygrass. Red alder, snowberry, vinemaple, willow, ninebark, and rose are also present. The presence of year-round water with a well-developed riparian canopy provides high wildlife habitat values.

WETLAND SUMMARY SHEET

UNIT: 3 **WETLAND:** B-5 **Wetland Acreage:** 8 (3ac PFO, 5ac PEM) **Field Date:** 8/29/94

Location: Fanno Ck: SW Tiedeman to SW Tigard St. Beaverton Quadrangle T1S R1W **Sec.** 34/35

Tax Map: **Zoning:** R-4.5 **Aerial: NW**

NWI Classification: PEM, PFO, R **WWHA Score: 64**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Fanno Creek

Hydrologic Source/Comments: Fanno Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia (scattered)	*Salix sp* *Spiraea douglasii*	*Phalaris arundinacea* *Solanum dulcamara* *Veronica americana* *Lemna sp.*

Boundary Information: distinct topographic break and fill dirt; vegetation changes to mowed lawns

Buffer Information: Standard 25 ft min.

Comments: B-5 is a reach of Fanno Creek with adjacent emergent and forested wetlands. Vegetation is dominated by scattered Oregon ash, spirea, willow, and reed canarygrass.

WETLAND SUMMARY SHEET

UNIT: 3	**WETLAND:** B-19	**Wetland Acreage:** 2.0 (PEM)	**Field Date:** 8/29/94
Location: North of Ponderosa Ct.		Beaverton Quadrangle T1S R1W **Sec.** 34	
Tax Map: 15134 AA, AC, AD		**Zoning:** R-4.5, I-P, Greenway	**Aerial: NW**

NWI Classification: PEM, R **WWHA Score: 35**

Mapped Soils: 13 Cove SiCL, 42 Verboort SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Fanno Creek (Hiteon Creek)

Hydrologic Source/Comments: Hiteon Creek, tributary of Fanno Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
	Rosa sp (patches)	*Phalaris arundinacea*

Boundary Information: vegetation changes from reed canarygrass to mowed grasses

Buffer Information: Standard 25ft min.

Comments: B-19 is a section of Hiteon Creek with adjacent emergent wetland dominated by reed canarygrass. The streambed contains cobbles and boulders. There is a paved recreational trail that crosses the wetland.

WETLAND SUMMARY SHEET

UNIT: 3	**WETLAND:** B-20	**Wetland Acreage:** 0.10 (PEM)	**Field Date:** 8/29/94
Location: Englewood Pk; North of Springwood Dr.		Beaverton Quadrangle T1S R1W **Sec.** 34	
Tax Map: 15134 BD		**Zoning:** R-12, R-4.5, Park	**Aerial: NW**

NWI Classification: PEM, R **WWHA Score: 40**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Fanno Creek (Hiteon Creek)

Hydrologic Source/Comments: Hiteon Creek, Fanno Creek tributary

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
	Salix sp	*Phalaris arundinacea* *Scirpus microcarpus* *Typha latifolia*

Boundary Information: vegetation changes from reed canarygrass to mowed lawn (park); wetland ≈50 ft wide.

Buffer Information: Standard 25 ft. min.

Comments: B-20 is a low flow stream (Hiteon Creek) and small pond. It lies between single-family homes and apartments. There is a recreation - walking path on the west side of the creek. B-20 is in Englewood Park.

WETLAND SUMMARY SHEET

UNIT: 4 **WETLAND:** A-1 **Wetland Acreage:** 2.8 (≈2.6ac PEM, 0.2ac POW) **Field Date:** 8/29/94

Location: Summer Creek: Scholl's Ferry Rd & 135th Beaverton Quadrangle T1S R1W **Sec.** 33

Tax Map: 15133 CA **Zoning:** R-25 **Aerial: NW**

NWI Classification: PEM, POW, R **WWHA Score: 61**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek

Hydrologic Source/Comments: Summer Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia (dead &/or stressed)	*Salix sp*	*Phalaris arundinacea* *Juncus effusus*

Boundary Information: Fill and/or distinct topographic break; dominant vegetation changes from reed canarygrass and dead Oregon ash to Himalayan blackberry

Buffer Information: Standard 25ft min.

Comments: This reach of Summer Creek has been recently channelized. A-1 is a perennial stream with adjacent emergent wetlands dominated by reed canarygrass and soft rush. A sewerline is located in the floodplain. Most of the Oregon ash is dead or dying due to excessive flooding.

WETLAND SUMMARY SHEET

UNIT: 4 **WETLAND:** A-2 **Wetland Acreage:** 9.33 (6ac PEM, 3.3ac PFO) **Field Date:** 8/29/94

Location: Summer Creek: 135th Ave to Summer Lake Beaverton Quadrangle T1S R1W **Sec.** 33

Tax Map: 15133 DB **Zoning:** R-25 + R-12 (PD); greenway **Aerial: NW**

NWI Classification: PEM, PFO, R **WWHA Score: 76**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek

Hydrologic Source/Comments: Summer Creek; precipitation

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sp.*	*Stachus cooleyae*
	Symphoricarpos albus	*Holcus lanatus*
	Rosa sp.	*Mentha arvense*
	Spirea douglasii	*Phalaris arundinacea*
		Solanum dulcamara

Boundary Information: dominant vegetation changes from Oregon ash and reed canarygrass → Himalayan blackberry, red hawthorn, and Douglas fir

Buffer Information: Standard 25 ft. min.

Comments: A-2 is a section of Summer Creek which is a perennial stream with adjacent wetlands. Ponded areas occur on the west end. Oregon ash is dead and/or stressed due to excessive flooding except for ≈45 ft band on the outside of the wetland that is a little higher and drier.

WETLAND SUMMARY SHEET

UNIT: 4	**WETLAND:** A-3	**Wetland Acreage:** 10.52 (≈1ac PEM, 9.5ac POWh)	**Field Date:** 8/29/94
Location: Summer Lake Pond		Beaverton Quadrangle T1S R1W **Sec.** 33	
Tax Map: 15133 DA, CB		**Zoning:** R-4.5 (PD) Park	**Aerial: NW**

NWI Classification: POWh, PEM **WWHA Score: 53**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek

Hydrologic Source/Comments: Summer Creek

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
Fraxinus latifolia (on edge)	*Salix sp*	*Phalaris arundinacea* *Carex obnupta*

Boundary Information: distinct topographic break; dominant vegetation changes from reed canarygrass to mowed grass, Himalayan blackberry, and Douglas fir

Buffer Information: Standard 25 ft. min. Room to expand into park; prevent mowing wetland and buffer and plant with native trees and shrubs.

Comments: Summer Lake is a large man-made pond with contiguous emergent wetlands and islands. Floating logs occur along the pond margins; filamentous algae is abundant. There is a beaver dam at the inlet to the lake and a man-made dam at the outlet. Emergent vegetation is dominated by slough sedge, reed canarygrass, Sitka willow, and mint. Lake water is slightly murky. Recreational trails are abundant in adjacent forest and fishing for fun (kids) is a neighborhood activity. A few beverage cans litter the lake.

WETLAND SUMMARY SHEET

UNIT: 4	**WETLAND:** A-4	**Wetland Acreage:** 1.5 (PFO)	**Field Date:** 8/29/94
Location: From A-5 to SW Walnut		Beaverton Quadrangle T2S R1W **Sec.** 4	
Tax Map:	**Zoning:** R-4.5, R-2.5		**Aerial: NW**

NWI Classification: PFO **WWHA Score: 38**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek (no-name tributary)

Hydrologic Source/Comments: tributary stormwater runoff, precipitation

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*(Rubus discolor)*	*Phalaris arundinacea*
Alnus rubra		
Populus trichocarpa		

Boundary Information: dominant vegetation changes to Himalayan blackberry

Buffer Information: Standard 25 ft. min.

Comments: A-4 is a stream lined with Oregon ash, red alder, and black cottonwood. The site has been partially filled since the original SRI wetland survey.

WETLAND SUMMARY SHEET

UNIT: 4	**WETLAND:** A-5	**Wetland Acreage:** 0.51 (≈ 0.3ac PEM/0.2ac POWx)	**Field Date:** 8/29/94
Location: SW of Katharine St/ 128th Ave.		Beaverton Quadrangle T2S R1W **Sec.** 4	
Tax Map: 25104 AA		**Zoning:** R-4.5	**Aerial: NW**

NWI Classification: POWx, PEM **WWHA Score: 38**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek (no-name tributary)

Hydrologic Source/Comments: tributary stormwater runoff, precipitation

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
	(Rubus discolor)	*Typha latifolia*
	Salix sp	*Phalaris arundinacea*

Boundary Information: dominant vegetation changes from cattail and reed canarygrass to white clover, velvet grass, and Himalayan blackberry

Buffer Information: Standard 25 ft min.

Comments: Roger Hart Memorial Wetland is a stream and adjacent wetland managed by The Wetlands Conservancy. TWC maintains a mowed trail onsite and has installed bird nest boxes and planted trees in the surrounding uplands. Vegetation is dominated by willow, cattail, and reed canarygrass. Kingfisher were observed on-site.

WETLAND SUMMARY SHEET

UNIT: 4	**WETLAND:** A-7	**Wetland Acreage:** 0.34 (PEM)	**Field Date:** 8/29/94
Location: trib. to Summer Lake; N of Winter Lake Dr.		Beaverton Quadrangle T1S R1W **Sec.** 33	
Tax Map: 15133 DA, DD		**Zoning:** R-4.5 (PD)	**Aerial: NW**

NWI Classification: R, PEM **WWHA Score: 59**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek (no-name tributary)

Hydrologic Source/Comments: tributary to Summer Creek; stormwater runoff

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*(Rubus discolor)*	*Phalaris arundinacea*
Alnus rubra		*Rorippa sp.*

Boundary Information: distinct topographic break

Buffer Information: Standard 25 ft. min.

Comments: A-7 is a perennial stream with adjacent wetlands that flows into Summer Lake. A paved trail is adjacent to the wetland.

WETLAND SUMMARY SHEET

UNIT: 4 **WETLAND:** A-8 **Wetland Acreage:** 6.5 (w/A-9) (≈0.5ac PSS, 2 ac PEM, 4ac POWh) **Field Date:** 8/29/94

Location: NE of Shoreview Place; downstream of Summer Lake dam Beaverton Quadrangle T1S R1W **Sec.** 34

Tax Map: 15134 CB **Zoning:** R-4.5 Greenway **Aerial: NW**

NWI Classification: PSS, PEM, POWh, R **WWHA Score: 66**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek

Hydrologic Source/Comments: Summer Creek, precipitation

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sp*	*Phalaris arundinacea*

Boundary Information: distinct topographic break; vegetation changes from reed canarygrass to Himalayan blackberry and Douglas fir.

Buffer Information: Standard 25 ft. min.

Comments: A-8 is a portion of Summer Creek, adjacent wetlands, and ponded area; education potential high (adjacent to Mary Woodward Elementary School), but presently cyclone fence and mowed lawn between school and wetland. Strip of Douglas fir adjacent to wetland with mowed lawns beneath canopy. Interspersion with adjacent woodland.

WETLAND SUMMARY SHEET

UNIT: 4	**WETLAND:** A-9	**Wetland Acreage:** see A-8	**Field Date:** 8/29/94
Location: Summer Cr: SW 121st Ave to A-8		Beaverton Quadrangle T1S R1W **Sec.** 34	
Tax Map: 15134 CC		**Zoning:** R-4.5 Greenway	**Aerial: NW**

NWI Classification: POWh, PSS, PEM **WWHA Score: 77**

Mapped Soils: 43 Wapato SiCL; 13 Cove SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek

Hydrologic Source/Comments: Summer Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sitchensis*	*Phalaris arundinacea*
Alnus rubra	*(Rubus discolor)*	*Solanum dulcamara*
		Scirpus microcarpus

Boundary Information: vegetation changes from Oregon ash, willow, and reed canarygrass to Himalayan blackberry and red hawthorn

Buffer Information: Standard 25ft min.

Comments: Streams, ponds, and adjacent wetlands; dead willows in water, pond water brownish, floating algae. Beaver dam and concrete dam and sign "Do Not Disturb Beaver Dam." Dead ash tree at 121st.

WETLAND SUMMARY SHEET

UNIT: 4 **WETLAND:** A-10 **Wetland Acreage:** 1.08 (PEM) **Field Date:** 8/29/94

Location: Krueger Ck: SW Walnut north to Park culvert Beaverton Quadrangle T2S R1W **Sec.** 4

Tax Map: 15133 CA **Zoning:** R-4.5, Park **Aerial: NW**

NWI Classification: PEM, R **WWHA Score: 39**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek (Krueger Creek tributary to Summer Cr)

Hydrologic Source/Comments: Krueger Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Salix lasiandra	*Rubus discolor*	*Phalaris arundinacea*
Alnus rubra	*Salix sp*	

Boundary Information: distinct topographic break; vegetation changes from reed canarygrass to Himalayan blackberry and tall fescue

Buffer Information: Standard 25 ft. min.

Comments: Krueger Creek, perennial stream (?) with some adjacent wetlands; clump of Douglas fir in park adjacent to stream with mowed lawn understory.

WETLAND SUMMARY SHEET

UNIT: 4 **WETLAND:** A-11 **Wetland Acreage:** 9.96 (≈8ac PFO/2ac PEM) **Field Date:** 8/29/94

Location: near Katherine St. between A9 and A10 Beaverton Quadrangle T2S R1W **Sec.** 4

Tax Map: 15134 CC, BB, AA **Zoning:** R-4.5 Greenway **Aerial: NW**

NWI Classification: PFO, PEM, R **WWHA Score: 59**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek (Krueger Creek tributary to Summer Cr)

Hydrologic Source/Comments: Krueger Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sp*	*Phalaris arundinacea*
Alnus rubra	*(Rbus discolor)*	

Boundary Information: vegetation changes from reed canary grass, Oregon ash, and willow to Himalayan blackberry

Buffer Information: Standard 25 ft. min.

Comments: Krueger Creek, perennial stream (?) with adjacent riparian wetlands. Wetland vegetation is dominated by Oregon ash, red alder, willow, and reed canarygrass.

WETLAND SUMMARY SHEET

UNIT: 4 **WETLAND:** A-12, E-36 **Wetland Acreage:** 13.62 (≈12.3 ac PFO, 1.3ac PEM) **Field Date:** 8/29/94

Location: Summer Ck: SW 121st and E-35 near Fowler Beaverton Quadrangle T2S R1W **Sec.** 34

Tax Map: 15134 CD **Zoning:** R-4.5 Greenway **Aerial: NW**

NWI Classification: PEM, PFO, R **WWHA Score: 64**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek

Hydrologic Source/Comments: Summer Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra	*(Rubus discolor)*	*Equisetum sp.*
Fraxinus latifolia	*Salix sitchensis*	*Phalaris arundinacea*

Boundary Information: distinct topographic break; dominant vegetation changes to tall fescue and Himalayan blackberry

Buffer Information: Standard 25 ft. min.

Comments: Summer Creek, perennial stream and adjacent wetlands. Channel mostly shaded by red alder. Wetland vegetation is dominated by Oregon ash, red alder, Sitka willow, reed canarygrass, and horsetail.

WETLAND SUMMARY SHEET

UNIT: 4	**WETLAND:** A-13	**Wetland Acreage:** 2.73 (POWx)	**Field Date:** 8/29/94
Location: N of Walnut St between SW 122nd & 123 Ave.		Beaverton Quadrangle T2S R1W **Sec.** 3	
Tax Map:		**Zoning:** R-4.5 Greenway	**Aerial:** NW

NWI Classification: POWx **WWHA Score: 18**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek (No name tributary)

Hydrologic Source/Comments: Stream, no-name tributary; precipitation

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
no adjacent vegetation	no adjacent vegetation	no adjacent vegetation

Boundary Information: Edge of pond concrete and mowed lawn

Buffer Information: Backyards

Comments: Stagnant man-made residential pond surrounded by numerous residences. Pond is lined with rocks and boards; there is no adjacent vegetation present. Docks with small boats are also present.

WETLAND SUMMARY SHEET

UNIT: 4	**WETLAND:** A-14	**Wetland Acreage:** 0.28 (POWh)	**Field Date:** no access
Location: between SW Alberta St. and Walnut St.		Beaverton Quadrangle T2S R1W **Sec.** 3	
Tax Map: 25103 BC		**Zoning:** R-4.5 Greenway	**Aerial: NW**

NWI Classification: POWh, R **WWHA Score: 68**

Mapped Soils: 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek (No name tributary to Summer Ck).

Hydrologic Source/Comments: stream, precipitation

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Thuja plicata		
Fraxinus latifolia		

Boundary Information: vegetation changes from Oregon ash to Douglas fir; distinct topographic break

Buffer Information: Standard 25 ft buffer.

Comments: A-14 is a small pond and connecting perennial stream. The pond is surrounded by a coniferous dominated woodland of Douglas fir and western red cedar. Oregon ash, big leaf maple, and red alder are also present. According to a resident the pond was dammed for irrigation purposes.

WETLAND SUMMARY SHEET

UNIT: 4 **WETLAND:** B17, E35 **Wetland Acreage:** 11.37 (PFO) **Field Date:** 8/29/94

Location: SE of south end of Gallo Ave. Beaverton Quadrangle T1S R1W **Sec.** 34

Tax Map: 15134 DC, AB + 25103 AB, AA, DC **Zoning:** Greenway **Aerial: NW**

NWI Classification: PFO, R **WWHA Score: 58**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek

Hydrologic Source/Comments: Depression, precipitation

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Rosa sp.*	*Carex obnupta*
	Symphoricarpos albus	*Rubus ursinus*
	Physocarpus capitatus	

Boundary Information: vegetation changes from Oregon ash to lawns, meadows, Queen Anne's lace, tall fescue

Buffer Information: Standard 25 ft. buffer.

Comments: B-17, E-35 is an Oregon ash wetland with a slough sedge dominated understory. A trail occurs along the edge of the forest and inside the forest; it is used by adjacent residents for dumping yard debris.

WETLAND SUMMARY SHEET

UNIT: 4	**WETLAND:** E-34	**Wetland Acreage:** 4.72 (PFO)	**Field Date:** 8/29/94
Location: Summer Ck: SW Walnut to Fanno Creek		Beaverton Quadrangle T2S R1W **Sec.** 3	
Tax Map: 15134 DC, DD, AA		**Zoning:** R-4.5 Greenway	**Aerial: NW**

NWI Classification: PFO, R **WWHA Score: 73**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno **Sub-basin:** Summer Creek

Hydrologic Source/Comments: Summer Creek

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
Alnus rubra	*(Rubus discolor)*	*Scirpus microcarpus*
Thuja plicata		

Boundary Information: distinct topographic break; dominant vegetation changes from red alder to Queen Anne's lace and Himalayan blackberry

Buffer Information: Standard 25 ft. buffer except where steep hillslopes that should be protected to the top of slope plus a 25 ft. buffer.

Comments: Summer creek, perennial stream and adjacent wetlands; portions of stream contain steep hillslopes. Interspersion with adjacent Douglas fir, big leaf maple forest, and ash forest (B-17, E-35). Trails connect, stream and Fowler Jr High to forest and wetlands (B-17, E-35); English ivy and bike trails throughout forest.

WETLAND SUMMARY SHEET

UNIT: 5 **WETLAND:** E-1,2,3 **Wetland Acreage:** 7.53 (PFO) **Field Date:** 9/13/94

Location: Derry Dell Ck: SW Pathfinder Ct. to Gaarde St. Beaverton Quadrangle T2S R1W **Sec.** 3

Tax Map: **Zoning:** R-3.5, R-4.5 Greenway **Aerial:** NW

NWI Classification: PFO, R **WWHA Score: 58**

Mapped Soils: Cove SiCL

Hydrologic Basin: Fanno **Sub-basin:** Fanno Creek (Derry Dell Creek)

Hydrologic Source/Comments: Derry Dell Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra	*Salix sp*	
Fraxinus latifolia	*(Rubus discolor)*	

Boundary Information: distinct topographic break; dominant vegetation changes to Himalayan blackberry

Buffer Information: Standard 25 ft. buffer.

Comments: Derry Dell Creek, perennial stream provides wildlife habitat; high food and cover value with dense canopy. Forested wetland is dominated by red alder, Oregon ash, and willow.

WETLAND SUMMARY SHEET

UNIT: 5 **WETLAND:** E-4 **Wetland Acreage:** 1.19 (PEM) **Field Date:** 9/13/94

Location: Derry Dell Ck: SW Walnut St to Fanno Ck west of Woodard Park Beaverton Quadrangle T2S R1W **Sec.** 2

Tax Map: **Zoning:** R-4.5 **Aerial: NW**

NWI Classification: PEM, R **WWHAScore: 43**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno **Sub-basin:** Fanno Creek and Derry Dell Creek

Hydrologic Source/Comments: Perennial stream

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra		*Juncus effusus*
Fraxinus latifolia		*Ranunculus repens*
Populus trichocarpa		*Polygonum sp.*

Boundary Information: distinct topographic break; dominant vegetation changes to Himalayan blackberry

Buffer Information: Standard 25 ft. buffer.

Comments: Derry Dell Creek, perennial stream and adjacent wetlands. The stream is sparsely lined with red alder. The adjacent wetland is dominated by soft rush and smartweed and is used for pasture. Grazing limits wildlife habitat value.

WETLAND SUMMARY SHEET

UNIT: 5	**WETLAND:** E-5	**Wetland Acreage:** Stream	**Field Date:** 9/13/94
Location: Fanno Creek: SW Tiedeman to 99W		Beaverton Quadrangle T2S R1W **Sec.** 2	
Tax Map:	**Zoning:** R-4.5, I-P, Park		**Aerial: NW + NE**

NWI Classification: R **WWHA Score: 59**

Mapped Soils: 13 Cove SiCL

Hydrologic Basin: Fanno **Sub-basin:** Fanno Creek

Hydrologic Source/Comments: Fanno Creek

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
Fraxinus latifolia	*(Rubus discolor)*	
Salix sp.		
Populus trichocarpa		

Boundary Information: distinct topographic break; dominant vegetation changes to Himalayan blackberry, big leaf maple, snowberry, Douglas fir, and Oregon white oak.

Buffer Information: Standard 25 ft. buffer; protect coniferous trees adjacent to wetland.

Comments: Fanno Creek, perennial stream, without adjacent wetlands; interspersion with upland coniferous woodland at Woodard Park.

WETLAND SUMMARY SHEET

UNIT: 6 **WETLAND:** E-29, 30 **Wetland Acreage:** 6 **Field Verified Date:** 8/23/94
(E-29 ≈ 1 ac POW/E-30 ≈ 5 ac PEM)
Location: Between SW Hunziker & Highway 217 Beaverton Quadrangle T2S R1W **Sec.** 1

Tax Map: **Zoning:** C-G (PD), Greenway **Aerial:** NE

NWI Classification: PEM, POW **WWHA Score:** 50

Mapped Soils: 42 Verboort SCL

Hydrologic Basin: Fanno **Sub-basin:** Red Rock Creek

Hydrologic Source/Comments: Red Rock Creek, precipitation

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Crataegus douglasi* *Rosa sp.*	*Deschampsia cespitosa* *Carex spp.* *Juncus patens* *Typha latifolia* *Solanum dulcamara* *Phalaris arundinacea* *Dipsacus sylvestrix*

Boundary Information: edge of mitigation pond; distinct topographic break adjacent to channelized creek; wetland prairie vegetation changes to Himalayan blackberry and fill.

Buffer Information: Standard 25 ft buffer in undeveloped areas

Comments: Relic tufted hairgrass prairie (E-30, unique habitat), mitigation pond, and perennial stream. Stream is channelized. Riparian vegetation surrounding mitigation pond is mowed; opportunity for enhancement; control weeds in prairie habitat ie. teasel, reed canarygrass, and blackberry. South of noisy Highway 217; provides aesthetic viewshed.

WETLAND SUMMARY SHEET

UNIT: 6	**WETLAND:** C-15	**Wetland Acreage:** 0.19 (PFO)	**Field Date:** 8/23/94
Location: SW 68th Parkway		Lake Oswego Quadrangle T1S R1W **Sec.** 36	
Tax Map: 15136 DA		**Zoning:** C-G	**Aerial: NE**

NWI Classification: PFO, R **WWHA Score: 62**

Mapped Soils: 22 Huberly SiL

Hydrologic Basin: Fanno **Sub-basin:** Red Rock Creek

Hydrologic Source/Comments: Red Rock Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra	*(Rubus discolor)*	*Juncus effusus*
Populus trichocarpa	*Salix sp.*	*Holcus lanatus*

Boundary Information: dominant vegetation changes from black cottonwood, red alder, willow, and soft rush to Himalayan blackberry. Topographic break ill-defined.

Buffer Information: Standard 25 ft. buffer except above SW 68th where the buffer should extend 25 ft. from the top of the hillslope. Enhancement opportunities plentiful: control Himalayan blackberry and replace with native shrubs.

Comments: Red Rock Creek is a perennial stream with a narrow band of fringing wetlands; provides wildlife habitat. Culvert below 68th has a 3 ft drop; potential fish barrier. Above 68th riparian vegetation is diverse including spruce, oak, apple, and Himalayan blackberry.

WETLAND SUMMARY SHEET

UNIT: 6	**WETLAND:** E-26, 27	**Wetland Acreage:** 1.5 (≈1 ac PEM, 0.5 ac POWx)	**Field Date:** 8/23/94
Location: SW of 72nd Ave/Highway 99W		Beaverton Quadrangle T1S R1W **Sec.** 36	
Tax Map: 15136 CD		**Zoning:** C-G (PD)	**Aerial: NE**

NWI Classification: PEM, POWx, R **WWHA Score: 53**

Mapped Soils: 22 Huberly SiL

Hydrologic Basin: Fanno **Sub-basin:** Red Rock Creek

Hydrologic Source/Comments: Red Rock Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus Latifolia	*Spiraea douglasi* *Rosa sp.* *Corylus cornuta*	*Juncus effusus* *Lolium sp.*

Boundary Information: vegetation surrounding water quality ponds changes from soft rush to ryegrass; the wetland boundary adjacent to the stream occurs at the top of bank or where dominant vegetation changes from Oregon ash to tall fescue.

Buffer Information: Standard 25 ft buffer.

Comments: Red Rock Creek, perennial stream with narrow band of adjacent wetlands and adjacent water quality pond.

WETLAND SUMMARY SHEET

UNIT: 6 **WETLAND:** E-28 **Wetland Acreage:** 10.70 (≈9.5 ac PFO, 1 ac POWx) **Field Date:** 8/23/94

Location: NE of Highway 217 and S of Pacific Hwy Beaverton Quadrangle T2S R1W **Sec.** 36 1

Tax Map: **Zoning:** C-G (PD) **Aerial: NE**

NWI Classification: PFO, PEM **WWHA Score: 61**

Mapped Soils: 22 Huberly SiL

Hydrologic Basin: Fanno **Sub-basin:** Red Rock Creek

Hydrologic Source/Comments: Red Rock Creek, groundwater, precipitation

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sp*	*Typha latifolia*
	Rosa sp.	*Phalaris arundinacea*
	Spirea douglasi	*Carex sp.*
	Cornus stolonifera	*Geum sp*
		Agrostis sp
		Dipsacus sylvestris

Boundary Information: dominant vegetation changes from Oregon ash, reed canarygrass, and bentgrass to red hawthorn, tall fescue, and Oregon white oak.

Buffer Information: Standard 25 ft buffer.

Comments: Red Rock Creek, perennial stream, with diverse canopy and ponded areas. Vegetation is dominated by Oregon ash, rose, cattail, reed canarygrass, avens, bentgrass, and teasel. Large size forest with central pond has habitat potential for red-legged frogs. Provides aesthetic viewshed from Highway 217. Relatively undisturbed: good educational potential but presently no access.

WETLAND SUMMARY SHEET

UNIT: 6 **WETLAND:** E-31, 32, 33 **Wetland Acreage:** 0.93 (1 ac PEM, 1.5 ac PFO) **Field Date:** 8/23/94

Location: Between SW Hunziker Rd & RXR tracks Beaverton Quadrangle T2S R1W **Sec.** 1

Tax Map: **Zoning:** I-L, I-P **Aerial: NE**

NWI Classification: PEM, PFO, R **WWHA Score: 60**

Mapped Soils: 42 Verboort SiCL, 13 Cove SiCL

Hydrologic Basin: Fanno **Sub-basin:** Red Rock Creek

Hydrologic Source/Comments: Red Rock Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia (dead)	*Salix sitchensis*	*Bidens cernua* *Veronica americana* *Eleocharis sp.* *Solanum dulcamara* *Typha latifolia* *Juncus effusus* *Phalaris arundinacea* *Glyceria grandis*

Boundary Information: distinct topographic break &/or fill present. Dominant vegetation changes from cattail and soft rush to mowed grasses and forbs including tall fescue, purple clover, and Queen Anne's lace and Himalayan blackberry in fill areas.

Buffer Information: Standard 25 ft. buffer.

Comments: Red Rock Creek, perennial stream and adjacent forested and emergent wetlands. Stream cover generally diverse, provides wildlife habitat. Vegetation is dominated by willow, beggar's tick, speedwell, cattail, soft rush, and mannagrass. Ponding due to beaver; many dead ash trees.

WETLAND SUMMARY SHEET

UNIT: 7 **WETLAND:** E-6 **Wetland Acreage:** 5.52 (≈4.5 ac PEM/1 ac POWx) **Field Date:** 9/13/94

Location: Fanno Ck: SW Main St to SW Ash Ave. Beaverton Quadrangle T2S R1W **Sec.** 2

Tax Map: 25102 AC **Zoning:** CBC Park **Aerial: NE**

NWI Classification: POWx, PEM, R **WWHA Score: 62**

Mapped Soils: non-hydric

Hydrologic Basin: Fanno **Sub-basin:** Fanno Creek

Hydrologic Source/Comments: Fanno Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sp*	*Phalaris arundinacea*
Salix lasiandra	*Spiraea douglasi*	*Juncus effusus*
(pockets of trees)		*Eleocharis sp.*
		Echinochloa crusgalli
		Typha latifolia

Boundary Information: vegetation changes from reed canarygrass to Himalayan blackberry, red hawthorn, and pine; and soil changes to fill material.

Buffer Information: Standard 25 ft buffer.

Comments: Fanno Creek and adjacent wetlands and ponds; provides wildlife habitat. Vegetation is dominated by reed canarygrass with scattered pockets of Oregon ash and red willow. Site has been disturbed by newly created irrigation pond and drainage swales and older mitigation vernal pond with islands.

WETLAND SUMMARY SHEET

UNIT: 7	**WETLAND:** E-7	**Wetland Acreage:** 0.50 (PSS)	**Field Date:** 8/23/94
Location: Between SW Frewing St. and Garrett St.		Beaverton Quadrangle T2S R1W **Sec.** 2	
Tax Map: 25102 CB		**Zoning:** R-4.5	**Aerial: NE**

NWI Classification: PSS **WWHA Score: 33**

Mapped Soils: 42 Verboort SiCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Tributary to Fanno Creek

Hydrologic Source/Comments: Tributary to Fanno Creek

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
Alnus rubra	*Alnus rubra*	*Phalaris arundinacea*
Salix lasiandra	*Salix lasiandra*	*Scirpus microcarpus*
(snags)	*Salix piperi*	*Oenanthe sarmentosa*
		Typha latifolia
		Solanum dulcamara
		Glyceria sp.

Boundary Information: change in vegetation to Himalayan blackberry, Queen Anne's lace, and tall fescue; also parking lot.

Buffer Information: Minimum 25 feet

Comments: Small stream with low flow, nearly stagnant; shopping cart in stream; fill material with chunks of asphalt and concrete on adjacent hillslope. Vegetation is dominated by willow, water parsley, cattail, reed canarygrass, and small-fruited bulrush.

WETLAND SUMMARY SHEET

UNIT: 7	**WETLAND:** E-8	**Wetland Acreage:** 2.56 (PFO)	**Field Date:** 8/23/94
Location: between S.W. Frewing St. and Fanno Creek		Beaverton Quadrangle T2S R1W **Sec.** 2	
Tax Map: 25102 AC, BD, CA, CB		**Zoning:** R-3.5, R12/C-G	**Aerial: NE**

NWI Classification: PFO **WWHA Score: 51**

Mapped Soils: 22 Huberly SiL

Hydrologic Basin: Fanno **Sub-basin:** Tributary to Fanno Creek

Hydrologic Source/Comments: Tributary to Fanno Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Rubus discolor*	
Alnus rubra		
Salix lasiandra		

Boundary Information: Vegetation changes to Himalayan blackberry; distinct topographic break

Buffer Information: Standard 25 ft buffer.

Comments: E-8 is a seasonal stream, tributary to Fanno Creek. Vegetation is dominated by Oregon ash, red alder, red willow, and Himalayan blackberry.

WETLAND SUMMARY SHEET

UNIT: 7 **WETLAND:** E 9-13 **Wetland Acreage:** 17.11 (≈6 ac PFO/10 ac PEM/1ac POW) **Field Date:** 8/23/94

Location: Fanno Ck Park; west of SW Hall Blvd. Beaverton Quadrangle T2S R1W **Sec.** 2

Tax Map: 25102 AC, DB, DA **Zoning:** Park **Aerial: NE**

NWI Classification: PFO, PEM, POW **WWHA Score: 75**

Mapped Soils: non-hydric, 22 Huberly SiL

Hydrologic Basin: Fanno **Sub-basin:** Fanno Ck

Hydrologic Source/Comments: Fanno Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sp.*	*Phalaris arundinacea*
Salix lasiandra	*Rosa sp.*	
Populus trichocarpa	*Spiraea douglasi*	
	Cornus stolonifera	

Boundary Information: Vegetation changes from reed canarygrass to Himalayan blackberry and tall fescue. Distinct topographic break.

Buffer Information: parts of buffer are forested with western red cedar, Douglas fir, Oregon white oak and ponderosa pine.

Comments: Fanno Creek is a perennial stream with extensive wetlands and small pondings. Vegetation is dominated by Oregon ash, red willow, black cottonwood, rose, spirea, creek dogwood, and reed canarygrass. Very scenic and excellent wildlife habitat; paved public trails; 50%-80% of stream has forested riparian cover; woody debris instream provides structure.

WETLAND SUMMARY SHEET

UNIT: 7 **WETLAND:** E 14-16, 18-21, 39 **Wetland Acreage:** 25 **Field Date:** 9/13/94
(≈19 ac PFO/0.25 ac PSS/4 ac PEM/2 ac POW)
Location: Fanno Ck E of SW Hall & N of Colony Ct Beaverton Quadrangle T2S R1W **Sec.** 1,2

Tax Map: 25102 DA, DD & 25112 BA, BB **Aerial: NE (E-20, E-20, 21) & SE**

Zoning: R-4.5, I-L, R-12, R-7, Greenway

NWI Classification: POW, PEM, PSS, PFO **WWHA Score: 80**

Mapped Soils: non-hydric, 42 Verboort SiCL, 13 Cove SiCL, 22 Huberly SiL

Hydrologic Basin: Fanno **Sub-basin:** Fanno Creek

Hydrologic Source/Comments: Fanno Creek; perennial stream.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*(Rubus discolor)*	*Phalaris arundinacea*
Alnus rubra	*Crataegus douglasii*	*Juncus effusus*
Salix lasiandra	*Spiraea douglasii*	

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry and pasture grasses.

Buffer Information: Standard 25 ft minimum.

Comments: Fanno Creek, perennial stream with areas of broad adjacent wetlands including forest, emergent and small pondings. Excellent wildlife habitat with diverse vegetation. Interspersion with stream and upland coniferous woodland. An additional wetland (E-39) between RXR tracks E of E-21 consists of ash/willow/blackcottonwood and seasonal pond. Steep channel banks vegetated with Himalayan blackberry and diverse forest cover.

WETLAND SUMMARY SHEET

UNIT: 7	**WETLAND:** E-17	**Wetland Acreage:** Stream	**Field Date:** 9/20/94
Location: NW of intersection of McDonald St/Hall Blvd		Beaverton Quadrangle T2S R1W **Sec.** 2	
Tax Map:	**Zoning:** R-4.5		**Aerial: NE & SE**

NWI Classification: R **WWHA Score: 67**

Mapped Soils: 22 Huberly SiL

Hydrologic Basin: Fanno **Sub-basin:** Fanno Ck

Hydrologic Source/Comments: Unnamed tributary to Fanno Creek; perennial stream

Dominant Vegetation:

Trees	**Shrubs**	**Herbs/Emergents**
Thuja plicata	*(Rubus discolor)*	
Alnus rubra		

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry

Buffer Information: Standard 25 ft minimum.

Comments: Perennial stream, tributary to Fanno Creek; riparian cover and water provides wildlife habitat; incised channel with limited adjacent wetlands. Vegetation is dominated by western red cedar and red alder.

WETLAND SUMMARY SHEET

UNIT: 7 **WETLAND:** E-22, 23, 24, 25 **Wetland Acreage:** 3 (1 ac PFO/2 ac PEM) **Field Date:** 8/23/94

Location: Fanno Ck S of Colony Ct & N of Bonita Rd Beaverton Quadrangle T2S R1W **Sec.** 1,2

Tax Map: 252112 BA **Zoning:** I-L R-2S **Aerial: SE**

NWI Classification: PEM, PFO, R **WWHA Score: 58**

Mapped Soils: non-hydric

Hydrologic Basin: Fanno **Sub-basin:** Fanno Ck

Hydrologic Source/Comments: Fanno Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra	*(Rubus discolor)*	*Agrostis sp.*

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry, Oregon white oak, and tall fescue.

Buffer Information: Standard minimum 25 ft

Comments: Fanno Creek, perennial stream with pockets of adjacent wetlands; sparse riparian vegetation limited to red alder, bentgrass and Himalayan blackberry.

WETLAND SUMMARY SHEET

UNIT: 7 **WETLAND:** E-37 **Wetland Acreage:** 0.50 (0.25 ac PFO/0.25 ac PEM) **Field Date:** 9/20/94

Location: N of McDonald St, E of SW 93rd Beaverton Quadrangle T2S R1W **Sec.** 2

Tax Map: 25102 DC **Zoning:** R-4.5 **Aerial: SE**

NWI Classification: R, PFO, PEM **WWHA Score: 50**

Mapped Soils: 22 Huberly SiL

Hydrologic Basin: Fanno **Sub-basin:** Fanno Creek

Hydrologic Source/Comments: unnamed tributary to Fanno Creek, groundwater, ppt

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra (snag)		*Oenanthe sarmentosa* *Equisetum arvense* *Solanum dulcamara* *Athyrium filix-femina* *Lystichum americanum* *Typha latifolia*

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry and big leaf maple

Buffer Information: 25 feet from top of hillslope

Comments: Small stream and adjacent bottom land choked with Himalayan blackberry; water parsley fills channel. Interspersion with adjacent upland habitat (western red cedar, big leaf maple, and red alder).

WETLAND SUMMARY SHEET

UNIT: 7 **WETLAND:** E-38 **Wetland Acreage:** 0.50 (PSS) **Field Verified Date:** 8/23/94
Wetland Determination: 6/26/95

Location: Between SW Garrett and SW Frewing St. Beaverton Quadrangle T2S R1W **Sec.** 2

Tax Map: 25102 CB **Zoning:** R-4.5 **Aerial:** NE

NWI Classification: PSS **WWHA Score: 33**

Mapped Soils: 42 Verboort SCL

Hydrologic Basin: Fanno Creek **Sub-basin:** Tributary to Fanno Creek

Hydrologic Source/Comments: Tributary to Fanno Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra	*Alnus rubra*	*Phalaris arundinacea*
Salix lasiandra	*Salix lasiandra*	*Scirpus microcarpus*
(snags)	*Salix piperi*	*Oenanthe sarmentosa*
		Typha latifolia
		Solanum dulcamara
		Glyceria sp.

Boundary Information: change in vegetation to Himalayan blackberry, Queen Anne's lace, and tall fescue; also parking lot.

Buffer Information: Minimum 25 feet

Comments: Small stream with minimal flow, nearly stagnant; shopping cart in stream; fill material with chunks of ~~asfalt~~ asphalt and concrete on adjacent hillslope.

WETLAND SUMMARY SHEET

UNIT: 8 **WETLAND:** G-1 **Wetland Acreage:** 1.5 (≈ 0.75 ac PFO, 0.75 ac PEM) **Field Date:** 9/13/94

Location: Ball Ck: SW 72nd Ave to RXR tracks Lake Oswego Quadrangle T2S R1W **Sec.** 12

Tax Map: 15136 CA, 25112 AC **Zoning:** I-L **Aerial: SE**

NWI Classification: R, PFO, PEM **WWHA Score: 38**

Mapped Soils: 43 Wapato SiCL; 21C Hillsboro Loam

Hydrologic Basin: Fanno **Sub-basin:** Ball Ck to Fanno Ck

Hydrologic Source/Comments: Perennial stream, Ball Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Salix sp.	*Salix sp.* *(Rubus discolor)*	*Phalaris arundinacea*

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry; soil changes to fill

Buffer Information: 25 ft minimum

Comments: G-1 is Ball Creek, a channelized perennial stream. Vegetation is dominated by willow, Himalayan blackberry, and reed canarygrass. The site is surrounded by dense industrial land use.

WETLAND SUMMARY SHEET

UNIT: 8 **WETLAND:** G-2 **Wetland Acreage:** 1.0 (≈0.75 ac PFO, ≈0.25 ac PEM) **Field Date:** 9/13/94

Location: Ball Ck SE of Bonita St./74th Ave. Beaverton Quadrangle T2S R1W **Sec.** 12

Tax Map: 25112 AC **Zoning:** I-L **Aerial: SE**

NWI Classification: PFO, PEM, R **WWHA Score: 61**

Mapped Soils: 43 Wapato SiCL; 21C Hillsboro Loam

Hydrologic Basin: Fanno **Sub-basin:** Ball Ck tributary to Fanno Ck

Hydrologic Source/Comments: Perennial stream, Ball Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Rubus discolor*	
Alnus rubra		
Salix lasiandra		

Boundary Information: Railroad and development fills; vegetation changes to Himalayan blackberry, big leaf maple, and red hawth.

Buffer Information: 25 ft minimum

Comments: G-2 is lower Ball Creek, a perennial stream with adjacent forested and emergent wetlands. It is located between two railroad right-of-ways which cause potential impacts to water quality. Interspersion for wildlife to Fanno Creek and Douglas fir woodland. It has been partially filled since the original wetland survey (SRI).

WETLAND SUMMARY SHEET

UNIT: 8 **WETLAND:** G-3-9 **Wetland Acreage:** 13.5 **Field Date:** 9/13/94
(≈3 ac PFO, 9.5 ac PEM, 1.0 ac POW)
Location: Fanno Ck SW of Bonita Rd/SW 74th Ave Beaverton Quadrangle T2S R1W **Sec.** 12

Tax Map: 25112 AC, BD, CA **Zoning:** I-L, I-P, R-4.5, R-7 **Aerial: SE**

NWI Classification: PFO, PEM POW, R **WWHA Score: 61**

Mapped Soils: 14 Cove C, 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Fanno Ck

Hydrologic Source/Comments: Fanno Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*(Rubus Discolor)*	*Phalaris arundinacea*
	Spiraea douglasi	*Juncus effusus*
		Polygonum amphibian
		Typha latifolia

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry

Buffer Information: 25 ft. minimum

Comments: G 3-9 is a portion of Fanno Creek, a perennial stream, and adjacent forested and emergent wetlands. Vegetation is dominated by Oregon ash, spirea, reed canarygrass, soft rush, smartweed, and cattail. Site provides wildlife habitat; interspersion with stream and adjacent coniferous forest.

WETLAND SUMMARY SHEET

UNIT: 8 **WETLAND:** G-10, 11, 12 **Wetland Acreage:** 18.0 (16.5 PFO, 0.5 PEM, 1.0 POW) **Field Date:** 9/13/94

Location: Fanno Ck N of SW Durham Rd Beaverton Quadrangle T2S R1W **Sec.** 12, 13

Tax Map: 25112 CA, CD, BD, DC; 25113 AB **Zoning:** I-P, Greenway **Aerial: SE**

NWI Classification: PFO, PEM, POW **WWHA Score: 78**

Mapped Soils: non-hydric and 43 Wapato SiCL

Hydrologic Basin: Fanno **Sub-basin:** Fanno Creek

Hydrologic Source/Comments: Fanno Creek, precipitation

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*(Rubus discolor)*	*Phalaris arundinacea*
Alnus rubra	*Crataegus douglasi*	*Impatiens capensis*
Populus trichocarpa		*Anthemis cotula*

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry, agricultural land, Douglas fir, and red hawthorn

Buffer Information: min. 25 ft

Comments: G 10-12 is a portion of Fanno Creek, a perennial stream, with adjacent forested wetlands; high quality wildlife habitat; interspersion with stream and upland coniferous forest and Tualatin River. No unnatural smells or noises; remnant oxbow channel and vernal pond.

WETLAND SUMMARY SHEET

UNIT: 8	**WETLAND:** G-13, 14	**Wetland Acreage:** 2.5 (PFO)	**Field Date:** 9/13/94
Location: Lower Fanno Ck, S of Durham Rd		Beaverton Quadrangle T2S R1W **Sec.** 13	
Tax Map:	**Zoning:** I-P		**Aerial: SE**

NWI Classification: R, PFO

WWHA Score: 66

Mapped Soils: non-hydric

Hydrologic Basin: Fanno **Sub-basin:** Fanno Ck

Hydrologic Source/Comments: Fanno Creek

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*(Rubus discolor)*	*Phalaris arundinacea*
Crataegus douglasi		*Equisetum arvense*
Alnus rubra (along stream)		
Populus trichocarpa		

Boundary Information: distinct topographic break; vegetation changes to agricultural land

Buffer Information: 25 ft. minimum

Comments: G-13,14 is a portion of Fanno Creek, a perennial stream, with adjacent forested wetlands. Vegetation is dominated by Oregon ash, red alder, and reed canarygrass. Site provides wildlife habitat; interspersion with adjacent uplands.

WETLAND SUMMARY SHEET

UNIT: 8	**WETLAND:** G-15	**Wetland Acreage:** 0.50 (PFO)	**Field Date:** 9/20/94
Location: NE of 81st Ct./Bond St.		Beaverton Quadrangle T2S R1W **Sec.** 12	
Tax Map: 25112 CC		**Zoning:** R-4.5	**Aerial: SE**

NWI Classification: PFO **WWHA Score: 55**

Mapped Soils: 21C Hillsboro Loam

Hydrologic Basin: Fanno **Sub-basin:** Fanno Ck

Hydrologic Source/Comments: Precipitation, depression areas; isolated from Fanno Ck and other Unit 8 sites.

Dominant Vegetation

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Cornus stolonifera*	
Alnus rubra	*Physocarpus capitatus*	
Populus trichocarpa	*Rosa sp.*	
Thuja plicata		

Boundary Information: vegetation changes to English Ivy, Himalayan Blackberry, and Douglas fir.

Buffer Information: min. 25 ft; retain adjacent forest as much as possible

Comments: G-15 is a forested wetland mosaic. Vegetation is dominated by Oregon ash, red alder, black cottonwood, western red cedar, creek dogwood, rose, and ninebark. Wildlife habitat medium high with interspersion with adjacent coniferous forest. Wetland does not appear as large as mapped but difficult to change without a ground survey.

WETLAND SUMMARY SHEET

UNIT: 9 **WETLAND:** F-15, 16 **Wetland Acreage:** 3.41 **Field Date:** 8/29/94
(F15 ≈ 2.5ac PFO, ≈ 1ac POWx; F16 ≈ 0.25ac POW)
Location: W of SW 92nd (N of Cook Park) Beaverton Quadrangle T2S R1W **Sec.** 14

Tax Map: 25114 AC, BD **Zoning:** R-4.5, R-12, Park, Greenway **Aerial: SE**

NWI Classification: PFO, PEM, POW, POWx **WWHA Score: 57**

Mapped Soils: 14 Cove Clay

Hydrologic Basin: Tualatin **Sub-basin:** Tualatin River

Hydrologic Source/Comments: Depression/seep; water greenish; a few floating logs.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra	*Salix sitchensis*	*Phalaris arundinacea*
Salix lasiandra		

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry

Buffer Information: Ball park, soccer field → south; residential → north (top of slope)

Comments: Excellent shrub with scattered tree cover surrounding pond, logs in pond, potential amphibian breeding habitat; no garbage, natural odors. Interspersion with Cook Park and Tualatin River. A reed canarygrass PEM was excavated into a POWx after the field survey.

WETLAND SUMMARY SHEET

UNIT: 9 **WETLAND:** F-17, 18, 19 **Wetland Acreage:** 12.6 **Field Date:** 8/29/94
(F-17 1 ac PEM, 1.4 ac POWx, F-18 1.7 ac PEM, 1 ac POWx; F-19 7.5 ac POWx)
Location: 92nd Ave near Tigard HS Beaverton Quadrangle T2S R1W **Sec.** 14

Tax Map: 25114 AC **Zoning:** R-4.5, R-12 **Aerial: SE**

NWI Classification: PEM, POWx (w/islands) **WWHA Score: 41**

Mapped Soils: 14 Cove Clay

Hydrologic Basin: Tualatin **Sub-basin:** Tualatin River

Hydrologic Source/Comments: Shallow ponded water present; algae abundant.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*Salix sitchensis*	*Typha latifolia*
Alnus rubra		*Polygonum sp.*
Populus trichocarpa		*Phalaris arundinacea*
		Eleocharis sp.
		Echinochloa crusgalli

Boundary Information: North → topographic break; vegetation changes to Himalayan blackberry; South → vegetation changes to tall fescue, mowed lawn, and Cook Park.

Buffer Information: 25 ft N of top of slope to the North to prevent erosion into wetland (Currently benig developed - & slope has been cleared in places).

Comments: Seasonal stream, mitigation ponds and emergent wetland; vegetation is dominated by reed canarygrass and cattail; natural noises, little disturbance; adjacent to Cook Park; interspersion with large open space and diverse habitats of Cook Park.

WETLAND SUMMARY SHEET

UNIT: 9	**WETLAND:** F-20, 21	**Wetland Acreage:** 7.0 (PFO) (F-20: 6 ac, F-21: 1 ac)	**Field Date:** 8/29/94
Location: Cook Park vicinity		Beaverton Quadrangle T2S R1W **Sec.** 14	
Tax Map: 25114 DC & DO		**Zoning:** R-4.5, Park	**Aerial: SE**

NWI Classification: PFO **WWHA Score: 66**

Mapped Soils: non-hydric

Hydrologic Basin: Tualatin **Sub-basin:** Tualatin River

Hydrologic Source/Comments: Adjacent to Tualatin River

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia	*(Rubus discolor)*	*Phalaris arundinacea*
Alnus rubra	*Salix sitchensis*	*Juncus effusus*

Boundary Information: distinct topographic break; vegetation changes to Himalayan blackberry

Buffer Information: Already protected in park; maintain diverse forest with limited trails and restore understory vegetation where needed.

Comments: F-20,21 is a forested wetland adjacent to the Tualatin River. Vegetation is dominated by Oregon ash and reed canarygrass. Site provides excellent wildlife habitat, high interspersion; City park with trails connecting uplands-wetlands-river. Garbage very limited, aesthetic value high; no noise.

WETLAND SUMMARY SHEET

UNIT: 9	**WETLAND:** F-22	**Wetland Acreage:** 0.50 (PFO)	**Field Date:** 8/29/94
Location: between SW Tualatin Dr. & Tualatin River		Beaverton Quadrangle T2S R1W **Sec.** 14	
Tax Map: 25115 AD		**Zoning:** Greenway	**Aerial: NW**

NWI Classification: PFO **WWHA Score: 50**

Mapped Soils: 9 Chehalis SiCL

Hydrologic Basin: Tualatin **Sub-basin:** Tualatin River

Hydrologic Source/Comments: Groundwater seep, tow of slope

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus Latifolia	*Rubus spectabilis*	*Lysichitum americanum*
Alnus rubra	*Cornus stolonifera*	
* snags	*Physocarpus capitatus*	
	Sambucus racemosa	

Boundary Information: Steep hillslope with distinct topographic break; vegetation changes to Douglas fir and sword fern.

Buffer Information: Minimum 25 ft from top of steep slope above wetland (already developing and filling on slope above).

Comments: F-22 is a forested wetland. The site is densely vegetated with a large saturated area and several small rivulets flowing into Tualatin River. Vegeteation is dominated by Oregon ash and red alder and supports salmonberry, creek dogwood, ninebark, red elderberry, and skunk cabbage in the understory. Site provides excellent wildlife habitat and connectivity with the Tualatin River.

WETLAND SUMMARY SHEET

UNIT: 9 **WETLAND:** F-23 **Wetland Acreage:** 2.50 (≈0.75 ac PFO, ≈1.75 ac PEM) **Field Date:** 8/29/94

Location: Avalon Park, N of Tualatin R., E of Hwy 99 Beaverton Quadrangle T2S R1W **Sec.** 15

Tax Map: 25115 A **Zoning:** R-25 **Aerial: SW**

NWI Classification: PFO, PEM **WWHA Score: 75**

Mapped Soils: 9 Chehalis SiCL

Hydrologic Basin: Tualatin **Sub-basin:** Tualatin River

Hydrologic Source/Comments: Groundwater seepage, and runoff channels

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Fraxinus latifolia		*Typha latifolia*
* snags		*Juncus effusus*
		Phalaris arundinacea
		Scirpus microcarpus

Boundary Information: distinct topographic break; vegetation changes to Rubus discolor, Douglas fir, big leaf maple, and mowed lawn; soil changes to fill for apartments to the north.

Buffer Information: Already developed. 25 ft. minimum

Comments: Streams, seasonal ponds, and wetlands; excellent habitat for such a developed area; walking paths (services residents of apartment complex); recreational trail and ball courts. Noise from highway; flooded trees have become snags.

WETLAND SUMMARY SHEET

UNIT: 9	**WETLAND:** F-26	**Wetland Acreage:** 10.05 acres	**Field Date:** 10/2/94
Location: SE of F15-19; E of Cook Park		Beaverton Quadrangle	T2S R1W **Sec.:** 14
Tax Map:		**Zoning:**	**Aerial: SE**

NWI Classification: PEMf **WWHA Score:** NA

Mapped Soils: 14 Cove C, 43 Wapato SiCL

Hydrologic Basin: Tualatin **Sub-basin:** Tualatin River

Hydrologic Source/Comments: Depression area collects precipitation and seepage from hillside and mitigation area to the north.

Dominant Vegetation: No Access

Trees	Shrubs	Herbs/Emergents
none	none	pasture grasses (grazed) *Juncus effusus*

Boundary Information: topographic break is slight; vegetation changes to upland pasture grasses. ponds water during the winter and spring.

Buffer Information: 25ft min.

Comments: Agricultural pond and depression area grazed and trampled by cattle; used by winter waterfowl.

WETLAND SUMMARY SHEET

UNIT: 10 **WETLAND:** F-1,2,13,14	**Wetland Acreage:**1.76 (POWx)	**Field Date:** 8-30-94
Location: Golf Course, N of Durham Rd	Beaverton Quadrangle T2S R1W	**Sec.:**SE, SW
Tax Map: 25111 AC, CA	**Zoning:** R-7(PD)	**Aerial: 1,2=SW; 13,14=SE**

NWI Classification: POWx **WWHA Score: 14**

Hydrologic Basin: Tualatin **Sub-basin:** small tributary to Tualatin River

Mapped Soils: 22 Huberly SiL, 42 Verboort SiCL

Hydrologic Source/Comments: created along stream corridor; runoff.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
No adjacent veg	none	mowed lawn *Phalaris arundinacea*

Boundary Information: Edge of ponds

Buffer Information: Within golf course.

Comments: Golf course ponds, cement banks no wetland vegetation, human disturbance. Recreation: water hazards for golf.

WETLAND SUMMARY SHEET

UNIT: 10	**WETLAND:** F-3	**Wetland Acreage:** Stream	**Field Date:** 8-30-94
Location: N of Durham Rd./108th Ave.		Beaverton Quadrangle T2S R1W	**Sec.:** 10
Tax Map: 25110 DD		**Zoning:** R-7(PD)	**Aerial: SW**

NWI Classification: R

WWHA Score: 40

Hydrologic Basin: Tualatin

Sub-basin: Unnamed tributary to Tualatin R.

Mapped Soils: 42 Verboort SiCL

Hydrologic Source/Comments: Stream, golf course runoff.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra	*Salix sp.*	*Juncus effusus*
Fraxinus latifolia		*Veronica americana*
		Equisetum sp

Boundary Information: distinct topographic break; vegetation changes → mowed lawn

Buffer Information: 25 ft min.

Comments: Unnamed perennial stream with negligible adjacent wetlands; typically sparsely vegetated with fringing red alder and willow; stream corridor ≈30 ft. wide.

WETLAND SUMMARY SHEET

UNIT: 10	**WETLAND:** F-4, 5	**Wetland Acreage:** 1.0 (F-4 0.5ac PFO, F-5 0.5ac PEM)	**Field Date:** 9/13/94
Location: 108th Ave./SW Durham Rd		Beaverton Quadrangle T2S R1W **Sec.:** 15	
Tax Map: 25115 AA		**Zoning:** R-7 (PD), R-45 (PD), R-25	**Aerial: SW**

NWI Classification: PEM, PFO, R **WWHA Score: 54**

Hydrologic Basin: Tualatin **Sub-basin:** Unnamed tributary to Tualatin R.

Mapped Soils: 42 Verboort SiCL

Hydrologic Source/Comments: Stream.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra	*Crataegus douglasii*	*Solanum dulcamara*
Thuja plicata		*Juncus effusus*
Fraxinus latifolia		

Boundary Information: distinct topographic break; vegetation changes to big leaf maple, Douglas fir, and maple.

Buffer Information: 25 ft. minimum from the top of hillslope adjacent to stream

Comments: Two streams with small pockets of adjacent wetland; beaver dam near Durham Road.

WETLAND SUMMARY SHEET

UNIT: 10 **WETLAND:** F-6, 7, 8 **Wetland Acreage:** 2.75 **Field Date:** 9/13/94
(F6 0.5ac PEM; F7 0.5ac PEM, 0.5 ac POWb; F8 1.25 ac PFO)
Location: 113th off Durham Rd Beaverton Quadrangle T2S R1W **Sec.:** 15

Tax Map: 25115 AO, AD **Zoning:** R-2 (PD), R-5, greenway **Aerial: SW**

NWI Classification: PFO, POWb, PEM, R **WWHA Score: 63**

Hydrologic Basin: Tualatin **Sub-basin:** Unnamed trib

Mapped Soils: 42 Verboort SiCL

Hydrologic Source/Comments: Stream.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra		*Juncus effusus*
Populus trichocarpa		*Carex obnupta*
Fraxinus latifolia		*Lysichitum americanum*
		Athyrium filix-femina
		Phalaris arundinacea

Boundary Information: Topographic break; vegetation changes → sword fern, pasture grasses, big leaf maple, western red cedar.

Buffer Information: Trailer court and homes to the south, > 25 ft; should include hillslope above stream and floodplain plus an additional 25ft. buffer.

Comments: Perennial stream with adjacent wetlands and ponded area caused by beaver dam; good wildlife habitat; riparian cover diverse on south bank; north bank agricultural; permanent water natural sounds and smells; E of SW 113 Ave. especially aesthetic. Interspersion to large undeveloped land.

WETLAND SUMMARY SHEET

UNIT: 10	**WETLAND:** F-24	**Wetland Acreage:** 0.5 (POWx)	**Field Date:** 9/13/94
Location: N of SW Titan Ln., W of 104th Ave.		Beaverton Quadrangle T2S R1W **Sec.:** 15	
Tax Map:	**Zoning:**		**Aerial: SW**

NWI Classification: POWx **WWHA Score:** NA

Hydrologic Basin: Tualatin **Sub-basin:** Unnamed trib to Tualatin River

Mapped Soils: 37 Quatama, 42 Verboort SiCL

Hydrologic Source/Comments: Isolated storm water detention pond. Water green; algae covered.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Populus trichocarpa (+snag)	*Salix sp* (seedlings)	*Typha latifolia* *Phalaris arundinacea*

Boundary Information: Topographic break; vegetation changes to Himalayan blackberry, bull thistle, tall fescue, western red cedar, and Douglas fir.

Buffer Information: Minimum 25 ft; include protection of trees.

Comments: Storm water detention pond. Site is fenced with cyclone fencing. Vegetation is dominated by willow seedlings, cattail, and reed canarygrass.

WETLAND SUMMARY SHEET

UNIT: 10 **WETLAND:** F-25 **Wetland Acreage:** Stream **Field Date:** 10/11/94

Location: Durham Rd. south to the Tualatin R. parallels Copper Cr Dr) Beaverton Quadrangle T2S R1W **Sec.:** 15

Tax Map: **Zoning:** **Aerial: SW**

NWI Classification: R **WWHA Score:** NA

Hydrologic Basin: Tualatin **Sub-basin:** Copper Creek

Mapped Soils: 10 Chehalis, 30 McBee SiCL, 37 Quatama

Hydrologic Source/Comments: Copper Creek, perennial stream

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra		
Thuja plicata		

Boundary Information: Topographic break.

Buffer Information: Top of slope + minimum 25 ft.

Comments: Copper Creek is a perennial stream corridor. This narrow riparian corridor is sandwiched between the fenced backyards of residents. Vegetation is dominated by red alder and western red cedar.

WETLAND SUMMARY SHEET

UNIT: 11 **WETLAND:** F-9, 10 **Wetland Acreage:** 1.27 (POWh) **Field Date:** 8/29/94

Location: N end of 91st Ave. N of Reiling St. (Mallard Lakes Development) Beaverton Quadrangle T2S R1W **Sec.: 11**

Tax Map: 25111 AC, AD **Zoning:** R-4.5, R-4.5 (PD), Greenway **Aerial: SE**

NWI Classification: POWh **WWHA Score: 30**

Hydrologic Basin: Tualatin **Sub-basin:** Pinebrook Creek

Mapped Soils: 22 Huberly SiL

Hydrologic Source/Comments: Headwaters of Pinebrook Creek; algal surface scum; stormwater 4" pipe → pond (W end)

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Alnus rubra		*Typha latifolia*
Fraxinus latifolia		*Phalaris arundinacea*
Weeping Willow		*Juncus effusus*
		Polygonum sp.
		Scirpus microcarpus

Boundary Information: Topographic break; vegetation changes to mowed lawn, backyards, and Canada thistle.

Buffer Information: 25 ft. minimum. Mowed lawns green (irrigated + prob fertilized)

Comments: Two residential man-made ponds created by damming stream; moderate wildlife habitat value. Vegetation is dominated by cattail. Fishing allowed for neighborhood; walking path surrounds eastern pond; channel exits east pond north to Pinebrook Creek with riparian canopy of red alder; attracts mallard and belted kingfisher.

WETLAND SUMMARY SHEET - Developed

UNIT: 11 **WETLAND:** F-11,12 **Wetland Acreage:** 0.0 **Field Date:** 8/29/94

NO ACREAGE - DEVELOPED

Location: Farm ponds SW of Sattler St/Hall Blvd. Beaverton Quadrangle T2S R1W **Sec.: 11**

Tax Map: 25111 AC, AD **Zoning:** R-4.5, R-4.5 (PD) Some Greenway **Aerial: SE**

NWI Classification: POWx, PEMf **WWHA Score: 14**

Hydrologic Basin: Tualatin **Sub-basin:** Pinebrook Creek

Mapped Soils: 22 Huberly SiL

Hydrologic Source/Comments: Depression (excavated?)

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
no adjacent vegetation;	totally grazed by cattle.	not recognizable

Boundary Information: Pond edge; high waterline.

Buffer Information: 25 ft. minimum

Comments: Two stock ponds; limited vegetation; cattle trodden; mallards and domestic geese observed onsite.

WETLAND SUMMARY SHEET

UNIT: 11	**WETLAND:** F-27	**Wetland Acreage:** Stream	**Field Date:** 8/29/94
Location: Pinebrook Ck: 89th Ave. → Fanno Creek		Beaverton Quadrangle T2S R1W	**Sec.: 11**
Tax Map:	**Zoning:**		**Aerial: SE**

NWI Classification: R

WWHA Score: NA

Hydrologic Basin: Fanno

Sub-basin: Pinebrook Creek → Fanno Creek

Mapped Soils: 13 Cove SiCL, 43 Wapato SiCL

Hydrologic Source/Comments: Pinebrook Creek, perennial stream; very low flow to stagnant in summer.

Dominant Vegetation:

Trees	Shrubs	Herbs/Emergents
Thuja plicata		
Alnus rubra		

Boundary Information: Distinct topographic break (no fringe wetlands); understory vegetation changes to sword fern and Himalayan blackberry.

Buffer Information: Top of hillslope + 25 ft.

Comments: Understory disturbed by trails and soil compaction. Sword fern and other natives persist in scattered clumps.

-STATE LANDS-
1 MAR 95 10:25

APPENDIX B:

LWI: BACKGROUND INFORMATION

Fishman Environmental Services

FES Project No. 94043 Date: 5/31/95 Staff CMirthWalker

TIGARD

Re: X-POW

Note: We did not do a wetland determination data sheet for POW (Open Water) – These areas were obvious on the aerials + were visibly ponded in the field; soils were not sampled in these open water situations. Vegetation is listed on the site summary sheets, along with information regarding hydrology.

Read rules to require data for each WL type in area.

Field Verification Data Sheets

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 94043 Site: E-38 unit 2 County: WA State: OR Date: 6/16/95 Plot: X-PSS
Applicant/Owner: City of Tigard Sect. 2 Township 2S Range 1W City: Tigard
Plot Location: South end, in the center
Topographic Location: intermittent stream
Do Normal Circumstances exist on the site? (Y) N Explain:
Are soils____ vegetation____ hydrology____ significantly disturbed? (N) Explain: surrounding soil are disturbed by fill material including concrete chunks that have been pushed into the edge of wl

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover:_____		
1. Phalaris arundinacea	95	FACW
2. Glyceria sp.	5	FACW+/OBL
3.		
4.		
5.		
6.		
7.		
8.		
9.		
10.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:_____		
1. Alnus rubra	90%	FAC
2. Salix lasiandra	10%	FACW
3. Salix piperi	—	FACW
4.		
5.		
Tree Stratum - % total cover:_____		
1.		
2.		
3.		
4.		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-):_____ = 100%
Hydrophytic Vegetation Present? (YES) NO

SOILS

Mapped unit name:_____ Matches Profile? Y N
Taxonomy:_____ Drainage Class:_____

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-4"	A	10YR 2/2	v dark brown, gley streaking, roots	silty sand
4-8"	AB	10YR 3/1		silty sand
8-22"	B	7YR 2/0	black, saturated	slightly silty sand

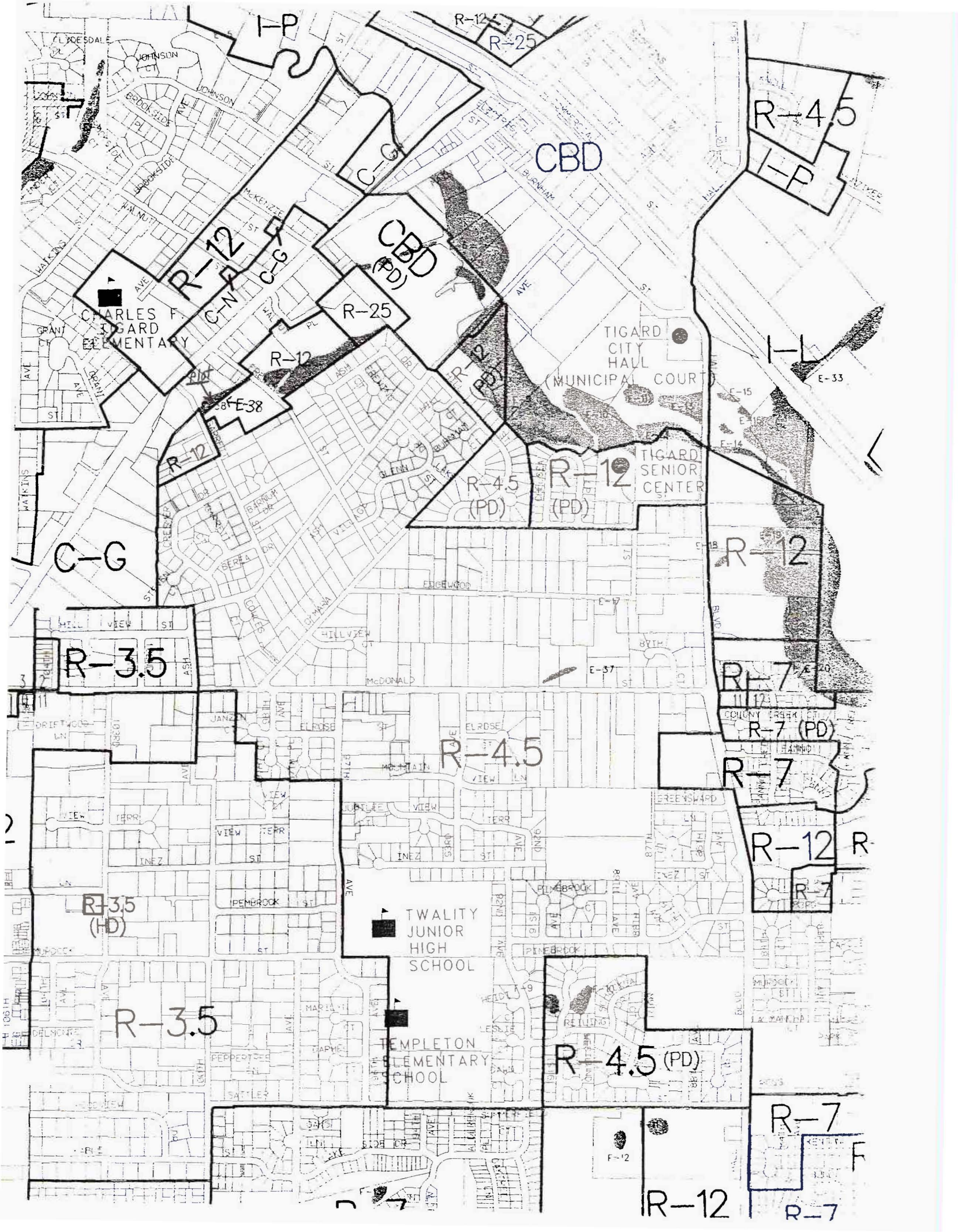
___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon X Gleyed reduced enough that there are no mottles ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
X Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) ___On Hydric Soils List
Remarks:
Hydric Soils Present? (YES) NO

HYDROLOGY

Depth of inundation: Ø Depth to saturation: 4" Depth to free water: 8"

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
V Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
V Water Marks	Recorded Data Available (aerials, gauge) ? - Explain:	
___Drift Lines	Other:	
___Sediment Deposits		
V Drainage Patterns	Wetland Hydrology Present? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Stream - culverted on both ends for roads.
Determined by: C Galen & M. Nakakis *Fishman Environmental Services*


I-P
R-12
R-25
CBD
R-4.5
I-P
C-G
CBD (PD)
R-12
C-N
C-G
R-25
CHARLES F. TIGARD ELEMENTARY
R-12
R-12 (PD)
TIGARD CITY HALL (MUNICIPAL COURT)
I-L
E-33
E-38
R-12
R-4.5 (PD)
R-12 (PD)
TIGARD SENIOR CENTER
C-G
R-12
R-3.5
R-7
R-7 (PD)
R-4.5
R-7
R-12
R-3.5 (HD)
TWALITY JUNIOR HIGH SCHOOL
R-3.5
TEMPLETON ELEMENTARY SCHOOL
R-4.5 (PD)
R-7
R-12
R-7

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 94043 Site: E-28 (Unit 6) County: WA State: OR Date: 3/30/95 Plot: X-PFO
Applicant/Owner: City of Tigard Sect. 1 Township 2S Range 1W City: TIGARD
Plot Location: Forest South of Costco (95036), S of 72nd Ave Trib + S, E of Red Rock Creek
Topographic Location: Whole forest area is depression
Do Normal Circumstances exist on the site? (Y) N Explain:
Are soils____ vegetation____ hydrology____ significantly disturbed? (N) Explain:

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: 85		
1. Poa species - ?	80	FAC?
2.		
3.		
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover: 40		
1. Crataegus monogyna	30	FACU+
2.		
3.		
4.		
5.		
Tree Stratum - % total cover: 60		
1. Fraxinus latifolia	60	FACW
2.		
3.		

Remarks: Trace Holcus lanatus (FAC), Trace Glyceria sp. (FACW/OBL) - latter increases to W in Forest
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/3 = 67%
Hydrophytic Vegetation Criterion Met? (YES) NO
Further into FOREST have Veratrum sp.; Rosa eglanteria dominant as well.

SOILS

Mapped unit name: 22 Huberly SL or 42 Verboort SCL Matches Profile? (Y) N → close to Verboort
Taxonomy: Typic Fragiaquept or Typic Argialbolls Drainage Class: Poorly

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-16		10YR3/1		Silt Loam

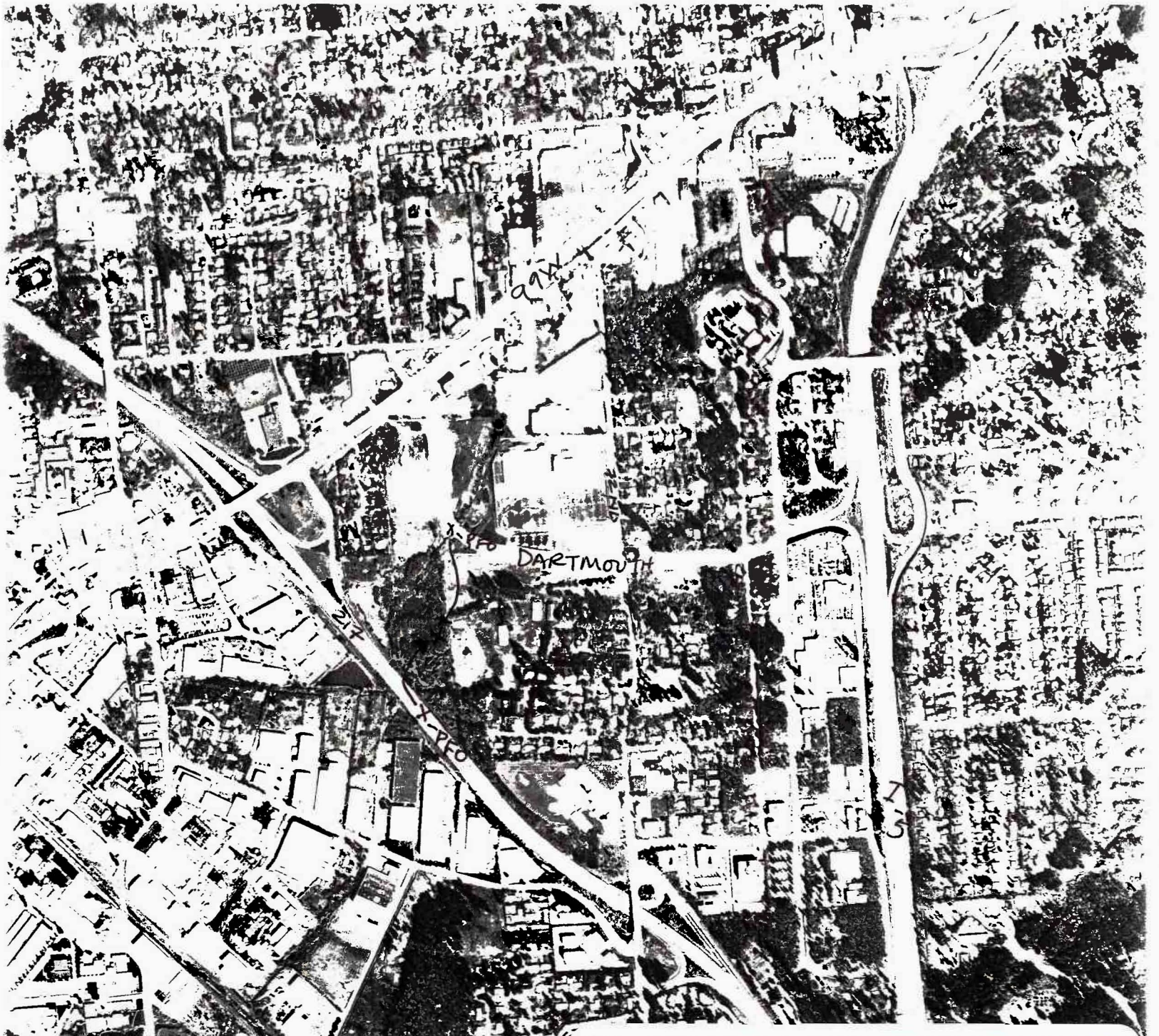
___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon X Gleyed (Low chroma) ___Organic Streaking
___Sulfidic Odor ___Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) X On Hydric Soils List
Remarks:
Hydric Soil Criterion / Indicators Met? (YES) NO

HYDROLOGY

Depth of inundation:_____ Depth to saturation: Surface Depth to free water: 6"

1° Indicators	2° Indicators	2° Indicators
___Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials) gauge) ? - Explain: 3/27/94 B+W	
___Drift Lines	~~Other:~~ Can see pond NW of sample plot, shows drainages of Red Rock Creek + 72nd Ave. Tributary	
___Sediment Deposits		
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION: Is this plot a Wetland? (YES) NO
Comments: Rubus discolor dominant @ SE corner, some Salix scattered throughout Woods.
Determined by: Mirth Walker *Fishman Environmental Services*



Fishman Environmental Services

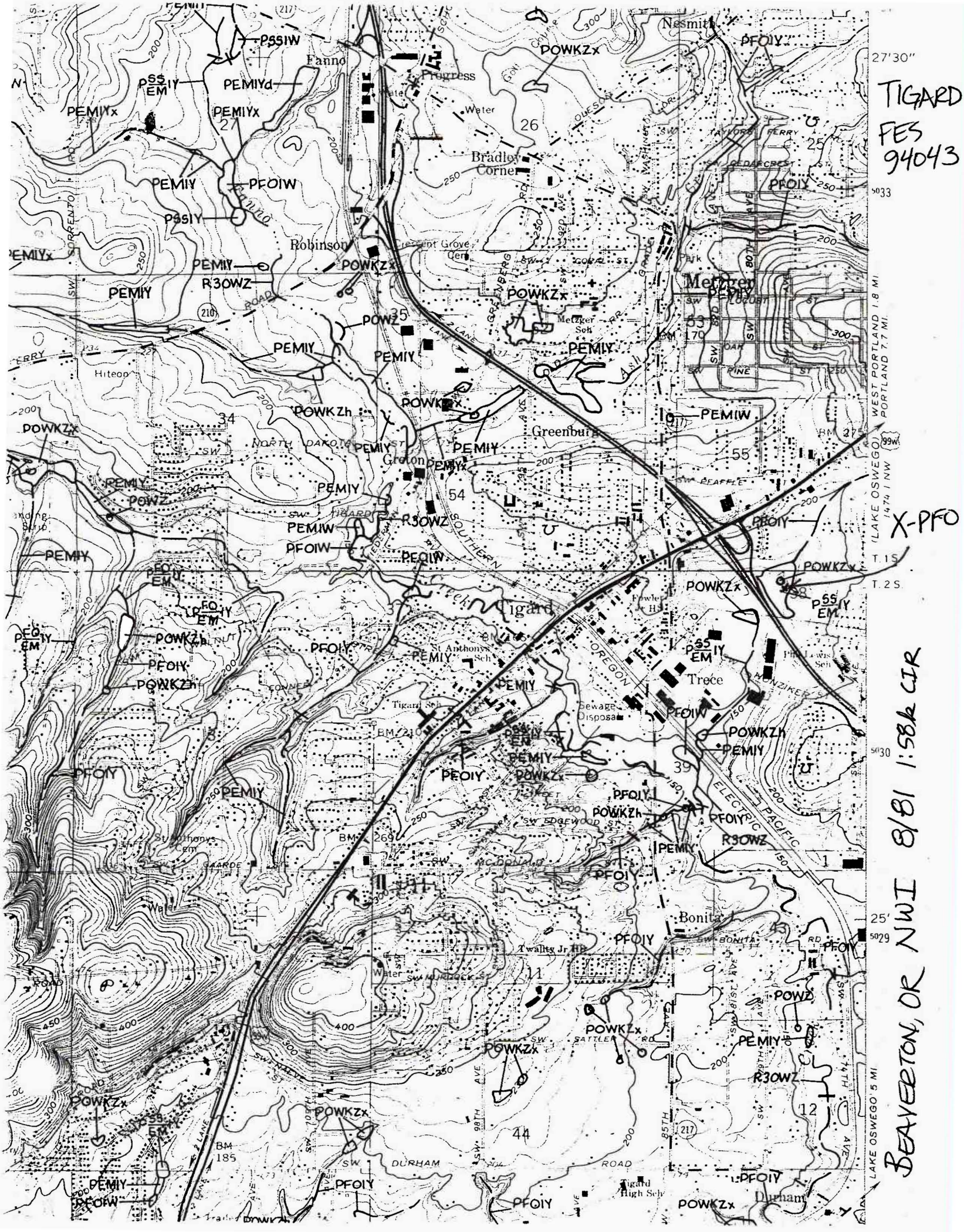
434 NW Sixth Ave., Suite 304
Portland, OR 97209

3-27-94
WAC 940R
1-131

contact print enlarged 200%

N

TIGARD Plot X-PFO FES94043


TIGARD
FES
94043
X-PFO
BEAVERTON, OR NWI 8/81 1:58k CIR
27'30"
25'
Nesmith
Fanno
Progress
Bradley Corner
Robinson
Metzger
Greenburg
Hiteon
Groton
Tigard
Trece
Bonita
Durham
PEMIY
PEMIYx
PEMIYd
PSSIW
PSSIY
PFOIW
PFOIY
POWKZx
POWKZh
POWZ
R3OWZ
PEMIW
PEMIWx
PFOIWx
PFOIYx
PEMIYh
PEMIYd
PSSIYx
PSSIYd
PSSIWx
PSSIWd
PSSIWh
PSSIYh
PSSIZ
PSSIZx
PSSIZd
PSSIZh
PSSIWx
PSSIYx

Disturbed

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 94043 Site: G-9 or 10 Unit 8 County: WA State: OR Date: 8/19/94 Plot: X-PEM2
Applicant/Owner: City of Tigard Sect. 12 Township 2S Range 1W City: TIGARD
Plot Location: grazed field in FP of Fanno Ck North of oxbow, E side, W. of 74th
Topographic Location: Flat field ~ 7' above water level in oxbow
Do Normal Circumstances exist on the site? (Y) N Explain: except Hot + Dry
Are soils ____ vegetation (Y) hydrology ____ significantly disturbed? N Explain: grazed (horses)

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: 100		
1. Holcus lanatus	25	FAC
2. Alopecurus geniculatus	25	OBL
3. Poa or Festuca -?	25	?
4. Ranunculus repens	20	FACW
5.		
6.		
7.		
8.		
9. ~scattered		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover:		
1.		
2.		
3.		

Remarks: Also Rumex crispus, Phalaris arundinacea, Bidens sp., Lotus corniculatus,
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 3/4 = 75% (at least)
Hydrophytic Vegetation Criterion Met? **YES** **NO**
+ few Crataegus monogyna shrubs. // UPL has Cirsium arvense + Dactylis glomerata

SOILS

Mapped unit name: Wapato SCL Matches Profile? (Y) N close
Taxonomy: Fluvaquentic Haplaquolls Drainage Class: Poorly

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
0-10		10YR 3/2	many med. 7.5YR 4/6	SL lotsORC
10-14+		10YR 4/1	Many med. 7.5YR 3/4	SL fewer ORC

___Histosol ___Reducing Conditions (test) ___Hi. Organic Cont. Surf. Layer
___Histic Epipedon X Gleyed Low Chroma ___Organic Streaking
___Sulfidic Odor X Mottled (w/i 10") ___Organic Pan
___Prob. Aquic Moisture Regime ___Concretions (w/i 3", >2mm) X On Hydric Soils List
Remarks: Hummocky, lots of ant hills (→ hydrology?)
Hydric Soil Criterion / Indicators Met? (YES) NO

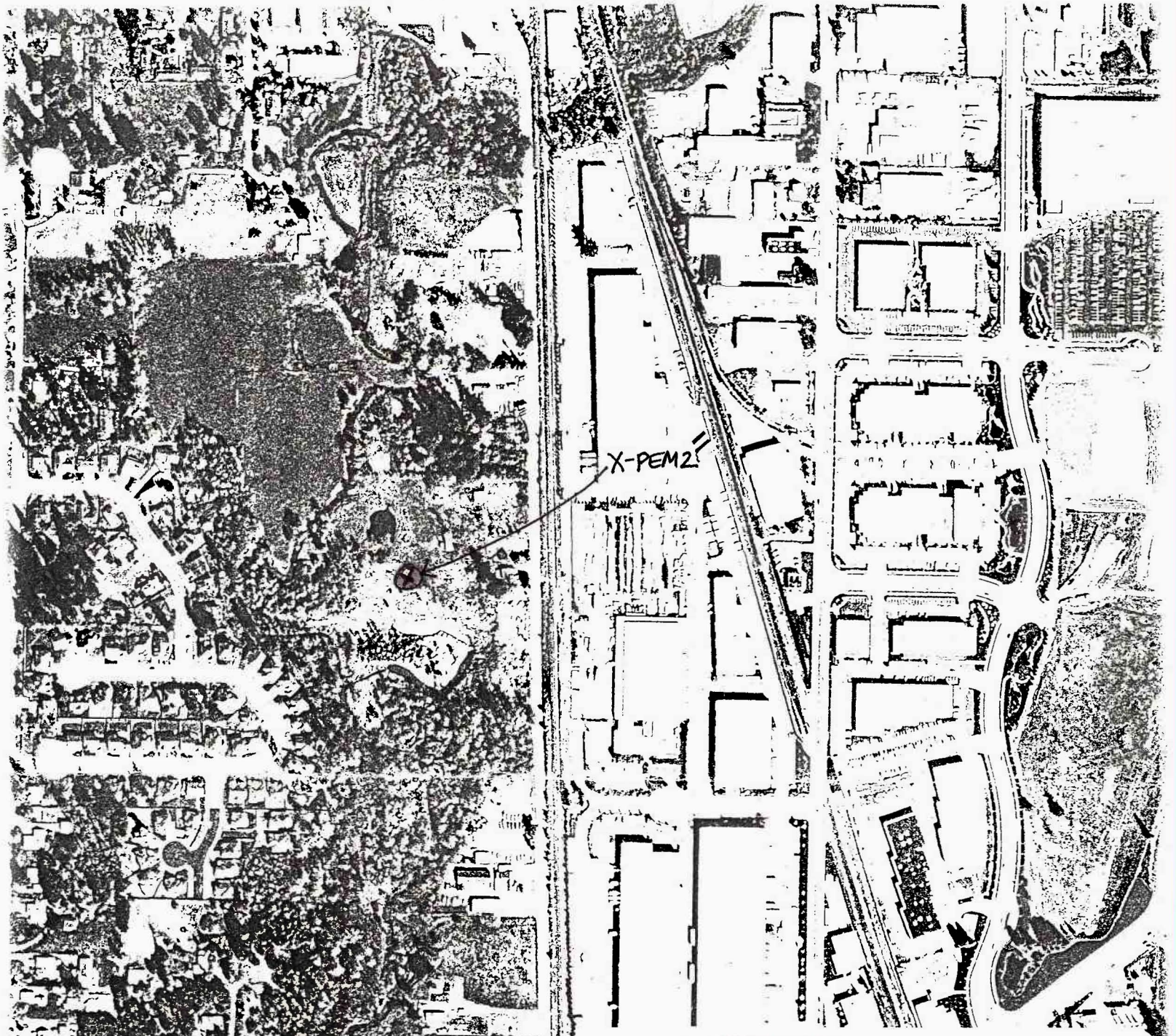
HYDROLOGY

Depth of inundation: — Depth to saturation: — Depth to free water: —

1° Indicators	2° Indicators	2° Indicators
___Inundated	X Oxidized Root Channels in upper 12"	X Local Soil Survey Data
___Saturated in upper 12"	___Water-stained leaves	X FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge) ? - Explain: 3/27/94 B+W;	
___Drift Lines	Other: 4/89 + 4/86 both show saturated soil line that looks congruent with FP line.	
___Sediment Deposits		
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

veg looks wet in aerial;

DETERMINATION: Is this plot a Wetland? (YES) NO ~type
Comments: Cut off oxbow to South / Vernal Pool Wetland to North (great spp.)
Determined by: C Mirth Walker *Fishman Environmental Services*



Fishman Environmental Services

434 NW Sixth Ave., Suite 304
Portland, OR 97209

FISHMAN

3-27-94 FES 94043
WAC-94 OR
1"=400'
N

TIGARD PLOT X-PEM2 (Disturbed)

Disturbed

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Project #: 94043 Site: F-26 (UNIT 9) County: WA State: OR Date: 12/20/94 Plot: X-PEM
Applicant/Owner: City of Tigard Sect. 14 Township 2S Range 1W City: TIGARD
Plot Location: John Thomas Dairy (94124) (Also F-19 to North)
Topographic Location: Meadow on east portion of FP site / Fannock to E of site
Do Normal Circumstances exist on the site? Y (N) Explain: Outside growing season
Are soils ____ vegetation X ____ hydrology ____ significantly disturbed? N Explain: grazed (cattle)

VEGETATION

*Dominant Plant Species	% Cover	Ind.
Herb Stratum - % total cover: 100		
1. Festuca arundinacea		FAC-
2. Alopecurus pratensis - ?		FACW
3. Ranunculus repens		FACW
4.		
5.		
6.		
7.		
8.		
9.		

*Dominant Plant Species	% Cover	Ind.
Shrub/Sapling Stratum - % total cover:		
1.		
2.		
3.		
4.		
5.		
Tree Stratum - % total cover:		
1.		
2.		
3.		

Remarks: Some Juncus effusus (FACW) & smartweed (Polygonum sp., prob. FACW) also present;
Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-): 2/3 = 67% Hydrophytic Vegetation Criterion Met? (YES) NO Still meets even though grazed

SOILS

Mapped unit name: Wapato (43) SCL (14 Core in center) Matches Profile? Y N (resembles - does not match)
Taxonomy: Fluvaquentic Haplaquolls Drainage Class: Poorly

Depth	Horizon	Matrix Color	Mottle Color, Abund., Size, On Pores/Peds?	Texture, Structure
		10YR 4/1	mottled	clay

___Histosol	___Reducing Conditions (test)	___Hi. Organic Cont. Surf. Layer
___Histic Epipedon	X Gleyed (low chroma)	___Organic Streaking
___Sulfidic Odor	X Mottled (w/i 10")	___Organic Pan
___Prob. Aquic Moisture Regime	___Concretions (w/i 3", >2mm)	___On Hydric Soils List

Remarks:
Hydric Soil Criterion / Indicators Met? (YES) NO

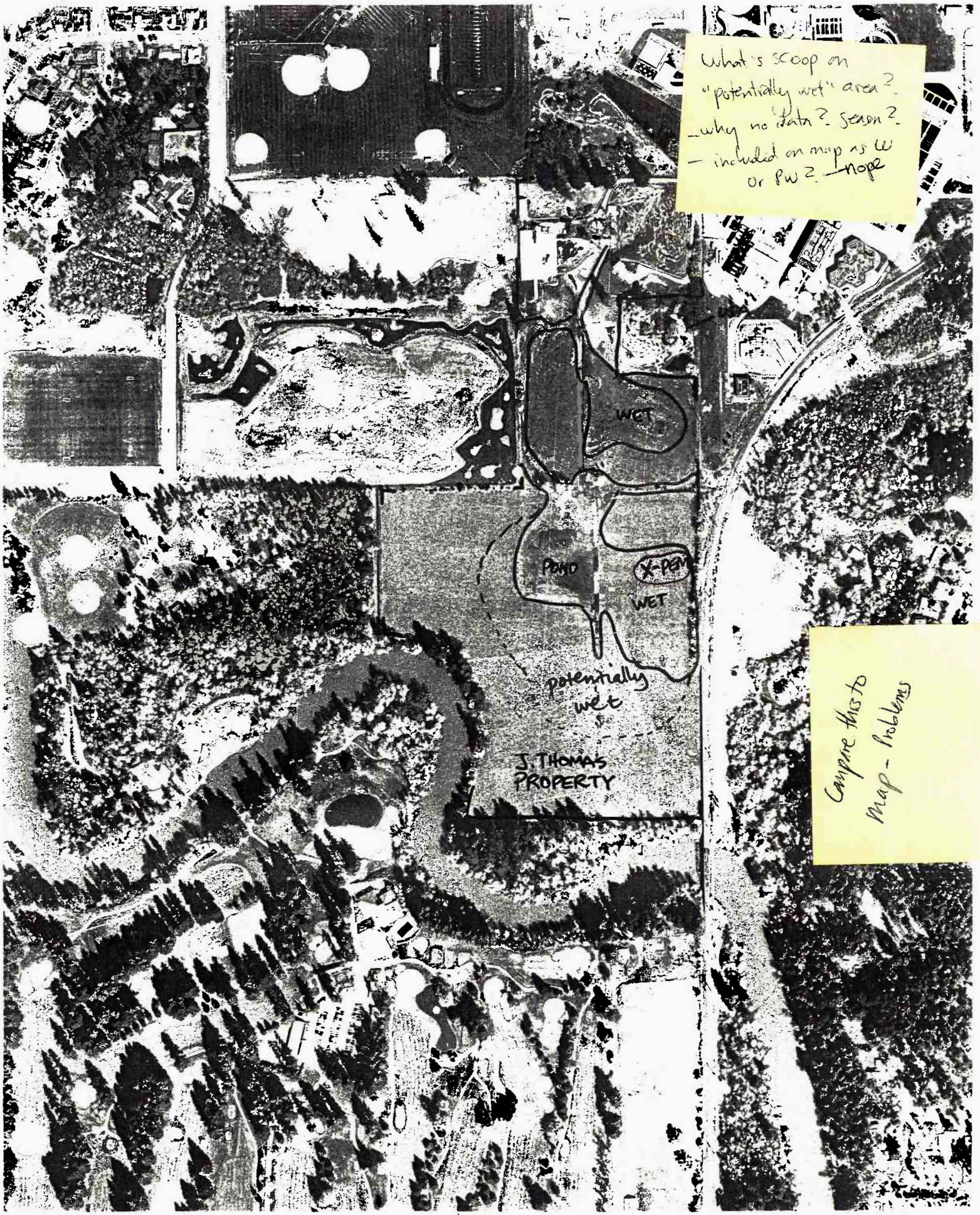
HYDROLOGY

Depth of inundation: 1/2 to 1 1/2" Depth to saturation: surface Depth to free water: ____

1° Indicators	2° Indicators	2° Indicators
X Inundated	___Oxidized Root Channels in upper 12"	___Local Soil Survey Data
X Saturated in upper 12"	___Water-stained leaves	___FAC-Neutral Test
___Water Marks	Recorded Data Available (aerials, gauge) ? - Explain: 3/27/94 B&W - 2 areas inundated	
___Drift Lines	Other: drain tile failed ~ 2 yrs ago (pers. comm. John Thomas)	
___Sediment Deposits		
___Drainage Patterns	Wetland Hydrology Criterion / Indicators Met? (YES) NO	

DETERMINATION:

Is this plot a Wetland? (YES) NO
Comments: Ponded area to west; may extend further south: check hydrology in Spring
Determined by: Cmith Walker *Fishman Environmental Services*



3·27·94
WAC-94OR TIGARD plot X-PEM FES94043
1" ≅ 461.5'
N

APPENDIX B

TIGARD LOCAL WETLANDS INVENTORY - BACKGROUND INFORMATION Land use FP Fishman Environmental Services 1994

1 unit	C-1	0.97 Acres ??	0.97 Acres ??	R-5 Zoning	not on disk		not on disk Tax map	NE Aerial
1	C-2	w/ C-1	w/ C-1	R-5	RES		1S125CB	NE
1	C-3	1.70	1.70	(Res)	MUL,SF		1S125CB,CC,CD	NE
1	C-4	0.15	0.15	(Res)	SF		1S125CD	NE
1	C-5	w/ C-4	w/ C-4	(Res)	MUL	Y	1S125CC	NE
1	C-6	3.36	3.36	not mapped	SF,VAC,PUB		1S125CC,CD	NE
1	C-7	w/ C-6	w/ C-6	not mapped	not on disk		not on disk	NE
1	C-8	1.71	1.71	1/2 is R-4.5	SF		1S125CD,DC	NE
1	C-13	stream	na	not mapped	not on disk	Y	not on disk	NE
1	C-14	stream	na	not mapped	not on disk	Y	not on disk	NE
1	C-16	stream	na	R-4.5,C-P	not on disk		not on disk	NE
2	B-6	8.99	1.5	R-4.5	SF,VAC	Y	1S135AC,AD	NE
2	B-7	w/ B-6	8.0	R-4.5,C-P	VAC,SF,FARM	Y	1S135AC,AD	NE
2	B-8	1.88	1.88	R-4.5,C-P	VAC	Y	1S135AD	NE
2	B-9 (filled)	2.62	0	R-4.5,C-P	VAC	Y	1S135AC,AD	NE
2	B-10	1.02	1.02	R-4.5,C-P	VAC	Y	1S135AD	NE
2	B-11	0.17	0.17	C-P	COM	Y	1S135BD	NE
2	B-12	1.19	1.19	C-P	VAC,COM		1S135AC,BD	NE
2	B-13	0.29	0.29	I-P	not on disk		not on disk	NE
2	B-14	6.09	6.0	C-P,C-G	VAC,COM,GRE	Y	1S135BD,CA	NE
2	B-15	0.28	0.28	I-P	COM	Y	1S135BC	NE
2	B-16	0.19	0.19	I-P	COM	Y	1S135BC	NE
2	B-18 (filled)	0.20	0	C-P	PUB,SF,GRE		1S135AC	NE
2	B-21 (filled)	1.50	0	R-4.5	VAC,SF		1S135AD	NE
2	C-9	1.02	1.02	C-9	VAC,MULTI		1S135AD,CD	NE
2	C-10	0.45	0.45	R-25			1S135CA	NE
2	C-11	w/ C-10	w/ C-10	R-25	VAC,SF		1S135CA	NE
2	C-12	3.02	3.02	C-P	VAC,SF		1S135AC,DA,DB	NE

See page 6 for notes.

UNIT	Wetland	Acres (`89)	Acres (`94)	Zoning	Land Use	FP	Tax Map	Aerial
3	B-1	stream	na	R-12,R-4.5	not on disk		not on disk	NW
3	B-2	4.61	4.5	R-4.5,PD	SF,PAR,VAC		1S134AC	NW
3	B-3	14.36	14.36	I-P	PAR,VAC,COM,GRE,SF,MUL	Y	1S134AD, 1S135BC	NW
3	B-4	2.96	3.0	R-12,I-P	FAR,VAC,SF	Y	1S134DA,DD, 1S135BC,C	NW
3	B-5	7.56	8.0	R-4.5	PUB,SF,VAC	Y	1S134DD	NW
3	B-19	2.00	2.00	R-4.5,I-P	PAR,SF		1S134AA,AC,AD	NW
3	B-20	0.10	0.10	R-12,R4.5	PAR		1S134BD	NW
4	A-1	2.79	2.8	R-25	SF,PAR,VAC	Y	1S133CA	NW
4	A-2	9.33	9.3	R-25, R-12(PD	PUB,GRE,SF	Y	1S133DB	NW
4	A-3	10.52	10.5	R-4.5(PD)	VAC,PAR,SF,GRE	Y	1S134DA,CB	NW
4	A-4 (p. filled)	3.42	1.5	R-4.5,R-25	GRE,SF,VAC,UNK		2S104AA,AB,AC	NW
4	A-5	0.51	0.8	R-4.5	GRE,SF		2S104AA	NW
4	A-6 (culv.)	stream	0	R-4.5(PD)	VAC,SF,GRW	Y	1S133DD,AA	NW
4	A-7	0.34	0.34	R-4.5(PD)	PAR,SF	Y	1S133DA,DD	NW
4	A-8	3.24	6.5	R-4.5	SF,GRE,	Y	1S134CB	NW
4	A-9	2.85	w/ A-8	R-4.5	GRE,PUB	Y	1S134CC	NW
4	A-10	1.08	1.08	R-4.5	SF,GRE,GRW,RES		1S133CA	NW
4	A-11	9.96	10.0	R-4.5	GRE,PUB,SF,VAC,MUL		1S134CC,BB,AA	NW
4	A-12	13.62	13.6	R-4.5	GRE,SF,	Y	1S134CD	NW
4	A-13	2.73	2.73	R-4.5	SF,VAC		2S103BB	NW
4	A-14	0.28	0.28	R-4.5	RES,SF		2S103BC	NW
4	B-17	11.37	11.37	R-4.5	PUB,SF,GRE		1S134DC,AB, 2S103AB	NW
4	E-34	4.72	4.72	R-4.5	PUB	Y	1S134DC,DD,AA	NW
4	E-35	w/ B-17	w/ B-17	R-4.5	PUB	Y	1S134DC, 2S103AA,AB,D	NW
4	E-36	w/ A-12	w/ A-12	R-4.5(PD)	SF,GRE,PUB	Y	1S134CD,DC	NW

See page 6 for notes.

UNIT	Wetland	Acres (`89)	Acres (`94)	Zoning	Land Use	FP	Tax Map	Aerial
5	E-1	7.53	7.53	R-3.5	SF		2S103DB,DC	NW
5	E-2	w/ E-1	w/ E-1	R-3.5,R.4.5	SF,GRE		2S103AC,AD,DA,DB	NW
5	E-3	w/ E-1	w/ E-1	R-4.5	SF,GRE		2S102BC,AD	NW
5	E-4	1.19	1.19	R-4.5	SF		2S102BB	NW
5	E-5	stream	na	R-4.5,IP	not on disk	Y	not on disk	NW/NE
6	C-15	0.19	0.19	C-P	COM		1S136DA	NE
6	E-26	0.81	1.5	C-G (PD)	VAC,COM		1S136CD	NE
6	E-27	w/ E-26	w/ E-26	C-G (PD)	VAC		2S101BA,BB,CD	NE
6	E-28	10.70	12.0	C-G (PD)	not on disk		not on disk	NE
6	E-29	7.51	1.0	C-G (PD)	not on disk	Y	not on disk	NE
6	E-30	w/ E-29	5.0	C-G (PD)	not on disk	Y	not on disk	NE
6	E-31	0.93	na	I-P,I-L	not on disk	Y	not on disk	NE
6	E-32	w/ E-31	2.5	I-P,I-L	not on disk	Y	not on disk	NE
6	E-33	w/ E-31	w/ E-32	I-L	not on disk	Y	not on disk	NE

See page 6 for notes.

7	E-6	5.52	5.5	CBD	COM,MUL,GRE	Y	2S102AC	NE
7	E-7	2.56	2.56	C-G	not on disk		not on disk	NE
7	E-8	w/ E-7	w/ E-7	R-3.5,R-12	MUL,PUB,SF,UNK,		2S102AC,BD,CA,CB	NE
7	E-9	17.11	17.0	CBD,R-12(PD)	MUL,COM,SF,VAC,GRE	Y	2S102AC,DB	NE
7	E-10	w/ E-9	w/ E-9	CBD	PUB,GRE,	Y	2S102DA,DB	NE
7	E-11	w/ E-9	w/ E-9	CBD	PUB	Y	2S102DA	NE
7	E-12	w/ E-9	w/ E-9	CBD,R-12(PD)	PUB,SF,GRE	Y	2S102DA,DB	NE
7	E-13	w/ E-9	w/ E-9	CBD,I-L	PUB	Y	2S102DA	NE
7	E-14	23.71	25.0	I-L	SF	Y	2S102DA	NE
7	E-15	w/ E-14	w/ E-14	I-L	COM,SF	Y	2S102DA	NE
7	E-16	w/ E-14	w/ E-14	I-L	SF	Y	2S102DA	NE
7	E-17	stream	na	R-4.5	not on disk	Y	not on disk	NE/SE
7	E-18	w/ E-14	w/ E-14	R-12	SF		2S102DD	NE
7	E-19	w/ E-14	w/ E-14	R-12,I-L	not on disk	Y	not on disk	NE
7	E-20	w/ E-14	w/ E-14	R-7,I-L	SF,GRE,VAC	Y	2S102DA, 2S112BA,BB	NE/SE
7	E-21	w/ E-14	w/ E-14	I-L	not on disk	Y	not on disk	SE
7	E-22	2.26	3.0	I-L	GRE,VAC	Y	2S2112BA	SE
7	E-23	w/ E-22	w/ E-22	I-L	not on disk	Y	not on disk	SE
7	E-24	w/ E-22	w/ E-22	I-L	VAC	Y	2S112BA	SE
7	E-25	w/ E-22	w/ E-22	R-12	VAC,MUL,SF	Y	2S112BA	SE
7	E-37	0.50	0.50	R-4.5	SF		2S102DC	SE
7	E-38	0.50	0.50	C-G, R-12	VAC,COM,MUL,SF		2S102CB	NE
7	E-39 (new)	-	0.25	I-L, I-P	not on disk		not on disk	NE

See page 6 for notes.

UNIT	Wetland	Acres (`89)	Acres (`94)	Zoning	Land Use	FP	Tax Map	Aerial
8	G-1	3.30	1.5	I-L	SF,VAC,COM		1S136CA, 2S112AC	SE
8	G-2	2.16	1.0	I-L	COM,VAC,		2S112AC	SE
8	G-3	14.32	3.5	I-P	IND,GRE,VAC	Y	2S112AC	SE
8	G-4	w/ G-3	na	I-P	not on disk	Y	not on disk	SE
8	G-5	w/ G-3	0.5	I-P	MUL,SF	Y	2S112BD	SE
8	G-6	w/ G-3	na	R-7	not on disk	Y	not on disk	SE
8	G-7	w/ G-3	0.5	I-P	VAC	Y	2S112BD	SE
8	G-8	w/ G-3	10.0	R-7,R-4.5,I-P	VAC,IND,GRE	Y	2S112AC,BD,CA	SE
8	G-9	w/ G-3	3.0	R-4.5,R-7	SF,GRE,VAC	Y	2S112BD,CA	SE
8	G-10	15.66	6.0	I-P	VAC,GRE,IND	Y	2S112CA,CD,DB,DC	SE
8	G-11	w/ G-10	6.0	R-7,I-P	GRE,VAC,SF,IND	Y	2S112CA,CD,DB,DC	SE
8	G-12	w/ G-10	5.5	I-P	SF,VAC,COM	Y	2S112CD,DC, 2S113AB	SE
8	G-13	2.85	na	I-P	not on disk	Y	not on disk	SE
8	G-14	w/ G-13	2.5	I-P	not on disk	Y	not on disk	SE
8	G-15	0.50	0.50	R-4.5	VAC		2S112CC	SE
9	F-15	3.41	3.5	R-4.5	VAC,GRW,SF	Y	2S114AC,BD	SE
9	F-16	w/ F-15	0.25	R-4.5,R-12	VAC	Y	2S114AC	SE
9	F-17	2.39	2.5	R-4.5,R-12	GRW	Y	2S114AC	SE
9	F-18	2.26	2.5	R-4.5,R-12	VAC	Y	2S114AC	SE
9	F-19	w/ F-18	3.0	R-12	VAC	Y	2S114A0,AC	SE
9	F-20	7.57	6.0	R-4.5	GRW	Y	2S114D0,DC	SE
9	F-21	w/ F-20	1.0	R-4.5	GRW	Y	2S114D0,DC	SE
9	F-22	0.50	0.50	R-7 (PD)	SF,GRW	Y	2S115AD	SW
9	F-23	2.50	2.5	R-25	MUL	Y	2S115A0,C0	SW
9	F-26 (new)	-	2.0	(Wa. Co.)	not on disk		not on disk	SE

See page 6 for notes.

UNIT	Wetland	Acres (`89)	Acres (`94)	Zoning	Land Use	FP	Tax Map	Aerial
10	F-1	1.76	1.76	R-7 (PD)	VAC		2S110DD	SW
10	F-2	w/ F-1	w/ F-1	R-7 (PD)	VAC		2S110DD	SW
10	F-3	0.06	na	R-7 (PD)	VAC		2S110DD	SW
10	F-4	0.71	0.5	R-7 (PD)	VAC		2S115AA	SW
10	F-5	w/ F-4	0.5	R-25,R-4.5 (PD	SF,GRW		2S115A0,AA	SW
10	F-6	1.75	0.5	R-5	VAC	Y?	2S115A0	SW
10	F-7	w/ F-6	1.0	R-5	SF	Y	2S115A0	SW
10	F-8	w/ F-6	1.25	R-2 (PD)	VAC,SF,GRW	Y	2S115A0,AD	SW
10	F-13	w/ F-1	w/ F-1	R-7	VAC		2S111CA	SE
10	F-14	w/ F-1	w/ F-1	R-7	SF		2S111CA	SE
10	F-24 (new)	-	0.5	R-4.5, R-25	not on disk		not on disk	SW
10	F-25 (new)	-	na	R-4.5, R-7 (PD	not on disk		not on disk	SE
11	F-9	1.27	1.27	R-4.5,R-4.5(PD	SF,GRE		2S111AC,AD	SE
11	F-10	w/ F-9	w/ F-9	R-4.5 (PD)	SF,GRE		2S111AC,AD	SE
11	F-11	0.78	0.78	R-12	VAC		2S111DA	SE
11	F-12	w/ F-11	w/ F-11	R-4.5,R-12	not on disk		not on disk	SE
11	F-27 (new)	-	na	R-4.5,7,12 (PD	not on disk		not on disk	SE

Note: Acres ('94) are approximate. Zoning information taken from the City of Tigard's 3/21/94 Zoning Districts Overlay.
Land Use, Flood Plain (FP), and Tax Map information taken from a computer file used by SRI in 1989.* changes likely!
Aerial (NE/SE/SW/NW) refers to one of four 30"-square black & white ~ 1"=400' aerials covering the City.
"na" applies to acreage of streams.
"p. filled" means partially filled.

APPENDIX C:

FUNCTIONAL VALUES FOR INDIVIDUAL WETLANDS

TIGARD LOCAL WETLANDS INVENTORY - "OFFSITE OPTION" ASSESSMENT

Unit	Wetland	PFO	PSS	PEM	PEMx	PEMf	POW	POWx	POWh	POWb	R	WILD	FISH	LINK	UNIQ	WQ	HYDR	REC	ED	AES
1	C-1,2			2.2								H	M	H	L	M	H	L	L	H
1	C-3	1.7										H	M	M	L	M	H	L	L	M
1	C-4,5								0.2			M	L	M	L	L	H	M	L	H
1	C-6,7	3.4										H	M	M	L	M	H	M	L	H
1	C-8	1.7										H	M	M	L	M	H	L	L	H
1	C-13										R	H	M	H	L	L	H	H	M	H
1	C-14										R	M	M	M	L	L	H	L	L	M
1	C-16										R	H	M	H	L	L	H	L	L	H
Total	9.07	6.8	0.0	2.2	0.0	0.0	0.0	0.0	0.2	0.0										
2	B-6,7			8.0				1.5				M	M	M	L	M	M	L	L	L
2	B-8							1.9				M	L	L	L	L	L	L	L	L
2	B-10	1.0										M	L	M	L	L	H	L	L	M
2	B-11							0.2				M	L	L	L	L	H	M	L	M
2	B-12			0.6				0.6				M	L	L	L	M	H	L	L	L
2	B-13			0.3								M	L	L	L	L	L	L	L	L
2	B-14			5.0			1.0					H	M	M	L	M	H	L	L	M
2	B-15			0.3								M	L	M	L	L	M	L	L	L
2	B-16			0.2								M	M	M	L	L	H	L	L	L
2	C-9	0.5		1.3								M	M	L	L	L	M	L	L	M
2	C-10,11				0.5							M	L	L	L	L	M	L	L	L
2	C-12	3.0										M	L	L	L	L	M	L	L	M
Total	25.74	4.5	0.0	15.6	0.5	0.0	1.0	4.1	0.0	0.0										

PFO = Palustrine Forest
PSS = Palustrine Scrub-Shrub
PEM = Palustrine Emergent
PEMx = Palustrine Emergent, excavated
PEMf = Palustrine Emergent, farmed

POW = Palustrine Open Water
POWx = Palustrine Open Water, excavated
POWh = Palustrine Open Water, diked / impounde
POWb = Palustrine Open Water, beaver
R = Riverine

WILD = Wildlife Habitat
FISH = Fish Habitat
LINK = Linkage
UNIQ = Uniqueness
WQ = Water Quality

HYDR = Hydrologic Contr
REC = Recreation
ED = Education
AES = Aesthetic Quality

Fishman Environmental Services 1995

TIGARD LOCAL WETLANDS INVENTORY - "OFFSITE OPTION" ASSESSMENT

Unit	Wetland	PFO	PSS	PEM	PEMx	PEMf	POW	POWx	POWh	POWb	R	WILD	FISH	LINK	UNIQ	WQ	HYDR	REC	ED	AEST
3	B-1										R	M	M	M	L	L	H	H	L	M
3	B-2	1.0		2.0			1.5					H	M	H	L	M	H	H	L	H
3	B-3			14.1								H	M	H	L	M	H	L	L	H
3	B-4	2.0		1.0								H	M	H	L	M	H	L	L	M
3	B-5	3.0		5.0								H	M	H	L	M	H	L	L	M
3	B-19			2.0								M	M	H	L	M	H	M	L	M
3	B-20			0.1								M	M	M	L	L	H	H	L	M
Total	31.71	6.0	0.0	24.2	0.0	0.0	1.5	0.0	0.0	0.0										
4	A-1			2.6			0.2					H	M	H	L	M	H	H	L	L
4	A-2	3.3		6.0								H	M	H	L	M	H	H	L	M
4	A-3			1.0					9.5			H	H	H	H	M	H	H	H	H
4	A-4	1.5										M	L	L	L	L	M	L	L	M
4	A-5			0.3				0.2				M	M	L	L	M	H	M	M	M
4	A-7			0.3								H	L	M	L	M	H	L	L	L
4	A-8,9		0.5	2.0					4.0			H	M	H	M	M	H	H	H	H
4	A-10			1.1							R	M	L	M	L	M	H	H	L	M
4	A-11	8.0		2.0								M	L	M	L	M	H	L	L	M
4	A-12, E-36	12.3		1.3								H	L	H	L	M	H	L	L	M
4	A-13							2.7				L	L	L	L	L	M	L	L	L
4	A-14								0.3			H	L	H	L	L	L	L	L	H
4	B-17, E-35	11.4										H	L	H	H	L	M	M	L	H
4	E-34	4.7										H	M	H	H	M	H	H	H	H
Total	75.21	41.2	0.5	16.6	0.0	0.0	0.2	2.9	13.8	0.0										

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Fishman Environmental Services 1995

TIGARD LOCAL WETLANDS INVENTORY - "OFFSITE OPTION" ASSESSMENT

UNIT	Wetland	PFO	PSS	PEM	PEMx	PEMf	POW	POWx	POWh	POWb	R	WILD	FISH	LINK	UNIQ	WQ	HYDR	REC	ED	AEST
5	E-1-3	7.5										M	M	M	L	M	H	L	L	M
5	E-4			1.2								M	M	M	L	M	H	L	L	M
5	E-5										R	H	M	M	L	L	H	L	L	M
Total	8.7	7.5	0.0	1.2	0.0	0.0	0.0	0.0	0.0	0.0										
6	C-15	0.2										H	M	M	L	L	H	L	L	M
6	E-26, 27			1.0				0.5				M	L	L	L	M	H	L	L	L
6	E-28	9.5						1.0				H	M	L	H	H	H	L	L	H
6	E-29							1.0				M	M	L	L	M	H	M	L	H
6	E-30			5.0								M	L	L	H	M	H	L	M	H
6	E-31-33	1.5		1.0								M	M	L	L	M	H	L	L	M
Total	20.7	11.2	0.0	7.0	0.0	0.0	0.0	2.5	0.0	0.0										
7	E-6			4.5				1.0				H	H	H	L	H	H	H	M	H
7	E-7		0.5									M	L	L	L	M	H	L	L	M
7	E-8	2.6										M	L	L	L	M	H	L	L	M
7	E-9-13	6.0		10.0			1.0					H	H	H	L	H	H	H	H	H
7	E-14-16,18-21,3	19.0	0.3	4.0			2.0					H	H	H	H	H	H	L	L	H
7	E-17										R	H	L	M	L	L	H	L	L	M
7	E-22-25	1.0		2.0								H	H	H	L	H	H	L	L	H
7	E-37	0.3		0.3								M	L	M	L	M	H	L	L	L
Total	54.31	28.8	0.8	20.8	0.0	0.0	3.0	1.0	0.0	0.0										

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TIGARD LOCAL WETLANDS INVENTORY - "OFFSITE OPTION" ASSESSMENT

UNIT	Wetland	PFO	PSS	PEM	PEMx	PEMf	POW	POWx	POWh	POWb	R	WILD	FISH	LINK	UNIQ	WQ	HYDR	REC	ED	AEST
8	G-1 (P. FILLED)	0.8		0.8								L	L	L	L	H	H	L	L	L
8	G-2	0.8		0.3								L	L	L	L	H	H	L	L	L
8	G-3-9	3.0		9.5			1.0					H	H	H	M	H	H	L	L	H
8	G-10,11,12	16.5		0.5			1.0					H	H	H	M	H	H	L	L	H
8	G-13,14	2.5										H	H	H	L	H	H	L	M	H
8	G-15	0.5										M	L	L	L	L	L	L	L	H
Total	37	24.0	0.0	11.0	0.0	0.0	2.0	0.0	0.0	0.0										
9	F-15,16	2.5					0.3	1.0				H	L	H	L	M	M	M	H	H
9	F-17			1.0				1.4				L	L	H	L	M	M	M	H	L
9	F-18,19			2.6				7.6				M	L	H	L	M	M	M	H	H
9	F-20,21	7.0										H	H	H	L	M	H	H	H	H
9	F-22	0.5										H	NA	H	M	NA	H	L	L	H
9	F-23	0.8		1.8								M	NA	H	L	M	M	H	L	M
9	F-26					10.1						M	NA	H	L	L	L	L	L	M
Total	36.4	10.8	0.0	5.4	0.0	10.1	0.3	10.0	0.0	0.0										
10	F-1,2,13,14							1.8				L	L	L	L	L	L	L	L	L
10	F-3										R	M	L	M	L	L	H	L	L	M
10	F-4,5	0.5		0.5								M	L	H	L	L	H	L	L	M
10	F-6-8	1.3		1.0						0.5		H	M	H	L	M	H	L	L	H
10	F-24							0.5				M	L	L	L	M	H	L	L	M
10	F-25										R	M	L	M	L	L	H	L	L	M
Total	6.05	1.8	0.0	1.5	0.0	0.0	0.0	2.3	0.0	0.5										
11	F-9,10								1.3			M	L	L	L	L	M	M	L	H
11	F-27										R	M	L	M	L	L	H	M	L	M
Total	1.27	0.0	0.0	0.0	0.0	0.0	0.0	0.0	1.3	0.0										

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APPENDIX D:

WETLAND FUNCTIONS ASSESSMENT CRITERIA

Appendix D – Tigard LWI

WILDLIFE HABITAT: ASSESSMENT CRITERIA

A: The Resource Unit provided diverse habitat for wildlife.

B: The Resource Unit provides habitat for some wildlife species.

C: The Resource Unit does not provide wildlife habitat or has limited use by wildlife.

FISH HABITAT: ASSESSMENT CRITERIA

A: The Resource Unit contributes to fish habitat.

B: The Resource Unit potentially contributes to fish habitat.

C: The Resource Unit does not contribute to fish habitat.

WATER QUALITY: ASSESSMENT CRITERIA

A: The Resource Unit provides water-quality benefits.

B: The Resource Unit has the potential to provide water-quality benefits.

C: The Resource Unit does not provide water-quality benefits.

HYDROLOGIC CONTROL: ASSESSMENT CRITERIA

A: The Resource Unit provides hydrologic control.

B: The Resource Unit has the potential to provide hydrologic control.

C: The Resource Unit does not provide hydrologic control.

SENSITIVITY TO IMPACT: ASSESSMENT CRITERIA

A: The Resource Unit is sensitive to secondary effects.

B: The Resource Unit is potentially sensitive to secondary effects.

C: The Resource Unit is not sensitive to secondary effects.

ENHANCEMENT POTENTIAL: ASSESSMENT CRITERIA

A: The Resource Unit can be enhanced.

B: The Resource Unit has some potential for enhancement.

C: The Resource Unit has little enhancement potential.

EDUCATION: ASSESSMENT CRITERIA

A: The Resource Unit has educational uses.

B: The Resource Unit has potential educational uses.

C: The Resource Unit site is not appropriate for educational use.

RECREATION: ASSESSMENT CRITERIA

A: The Resource Unit provides recreationa opportunities.

B: The Resource Unit has the potential to provide recreational activities.

C: The Resource Unit is not appropriate for or does not provide recreational opportunities.

AESTHETICS: ASSESSMENT CRITERIA

A: The Resource Unit is considered to be pleasing.

B: The Resource Unit is considered to be potentially pleasing.

C: The Resource Unit is not pleasing.

APPENDIX E:

OREGON METHOD WORK SHEETS:

WETLAND CHARACTERIZATION, FUNCTION AND CONDITION

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: UNIT 1 WETLANDS: C1-8, C13,14,16

ASH CREEK (N, S FORKS)

Watershed	1	Ash Creek (Fanno)	
Area	(2)		C-1 N Fork
Slope	(3)		C-2
	4		C-3
	5	C	C-4 ← C-6, 7, 8, 16
Designated (Watershed) os	6a		↓
ag	6b	(same as 15)	C-5 S. Fork
fo	6c		C-13
res	6d		C-14
com	6e		
ind	6f		Ash Creek
	7	b	
	8	b+d	(Ash is Moderate WQ condition only,
fish	9	a?, b	shiner, dace, sucker, sculpin not severe)
	10	c	unknown (cutthroat?)
birds herps etc.	11	a, c, d	a. passerines c - potentially forest sal., snakes d. passerines woodpeckers
	12	c	
	13	b	
	14	b	
Structure os	*15a		aerial
ag	*15b		
Actual fo	*15c	27%	7 x 2 + 2+1 = 16
res	*15d	60%	~~18 25~~ 16 x 2 = 36 /60
com	*15e	13%	4 x 2 = 8
ind	*15f		
oth	*15g		
	*16	a	
	17	~8	acres WL
	18	a	partially in FP:
	19	a	From just N of Hall + Hemlock St S. (C-5,6 south)
os	20a		
Zonad ag	20b		
fo	20c		
res	20d	~88%	
com	20e	~12%	
ind	20f		
oth	20g		
	21	~8 + ~24ac OS = 32	

office, *field

AQUATIC RESOURCE AREA: 1 Ash Cr (N,S forks)

Habitat (ow)	*22a	2%	aerial	
(em)	*22b	12%		C-1,2 R x mowed ag WL
ss	*22c			C-3 PFO depression adj to creek
(fo)	*22d	86%	(majority FO)	C-4,5 artificial pond, concrete spillway-fish barrier
	23	a		C-16 Nice riparian forest, limited buffer
	*24	C or b	aerial	stream natural
	*26	b or c	aerial	C-13 adj to large Conif Forest, Metzger Park
	27	a		C-6,7,13,14 stream corridor
	28	no.2 acre (POW only)		
Fisheries	29	b		
(Streams)	*30	b		
	*31	b	aerial 8 uncov 16 cov	
	*32	c		
(Lakes)	*33	c		
	*34	b		2 small ponds (C-4) a 100 (C-8) a-50 c-50
	*35	a		
Hydrology	*36	a	most likely stream floods in places during winter/spring	
	*37	b		
	*38	a		
	39	c	(a + b too)	
	40	a	?	
	41	a	year round	
Access	*42	b		
	*43	a	ag (C-1), Forest - riparian + conif - ~~need aerial for width~~	
	*44	a/c	C4-5 (residents), C13 (Metzger Park)	
	*45	a/b	C4-5 (paved trail), C13 b - soft path on slope	
	46	a/c		
	47	b/c	trail at Metzger Park; paved trail C4-5	
Recreation	*48	c	Not appropriate	
	*49	a/c	C4-5 (residents), C13 (Park)	
	50	a?		
	51	b		
Aesthetics	*53	b/a	+ some a (C1,2,16,13)	
	*54	a	limited & easily removed	
	*55	a		
	*56	b	C8 + C13 some exhaust cars, lawnmowers	
	*57	b	" "	
	*58	b		
	*59	a	PFO, R	

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: 2 ASH CR. WETLANDS: Cq-12, B6-8, 10-12, 14-16

Watershed	1		B 9, B18, B21 Filled, Not present
Area	(2)		PEM, R - C-10, 11 trib, incised channel
slope	(3)		PFO, PEM, R - C-9 fringe wl, forest + open
	4	d	B6, 7 - R, PEM, POW grazed, ponds sparse veg
	5	c	B 11, 12 POW > algae, limited cover, 217
Designated os	(6a)		B 10 - PFO, 217, stream
ag	(6b)		B 8 POW, mitigation, PEM, 217
fo	(6c)		B 14 R, PEM snags, woodducks, large dist. PEM
res	(6d)		
com	(6e)		C 12 PFO, 217, buffer 217 → N. Oak.
ind	(6f)		B 15 seasonal POW
	7	b	(Fanno Only) B 16 PEM, R, channelized, fines
	8	b+d	(Ash moderate only) but water ↓
fish	(9)	b	red-side shiner (UNIT 1 C-14 → B-6 UNIT 2)
	(10)	b	large scale sucker, 3 spine stickleback, bluegill, pumpkin seed, gambusia
birdsete	(11)	a, c, d	migratory + res, birds, herptiles (B-6, B-7, B-8, 21, 9, 10)
	(12)	b/c	(B-11, 12, B-18, C-12)
	13	c	(B-13, B-14, B-15, B-16)
	14	c	
Structure os	*15a		
Actual (ag)	*15b	28%	4 x 2 = 8
fo	*15c		
(res)	*15d	43%	6 x 2 = 12
(com)	*15e	28%	4 x 2 = 8
ind	*15f	0	
oth	*15g		
	*16	b	pasture land B6, other areas might have been pasture, Now much filling in wl + adjacent
	17	~25 acres	
	18	a	most wetlands are connected by Ash Cr.
	19	a	partially in FP to Hall
Zoned os	20a		
ag	20b		
fo	20c		
(res)	20d	53%	2.5 + 2.5 = 5
(com)	20e	37%	2.5 + (.5 x 2) = 3.5
(ind)	20f	10%	(0.5 x 2) = 1
oth	20g		
	21	>35 acres	

office, *field

AQUATIC RESOURCE AREA: 2 Ash Cr.

Habitat \ ow	*22a	~23% 55ac*	aerial
) em	*22b	~57% 14.5acres	
ss	*22c		
\ fo	*22d	20% 5acres	
	23	b	Reed canarygrass, soft rush, Oregon ash, Equis,
	*24	c	check aerial
	*26	corb	aerial – variable buffer – >100' in ag areas; little in com. areas
	27	a+c	– most WLs connected by Ash Ct but some isol. by freeways etc,
	28	~6acres	
Fisheries	29	a (?)	resident reported trout (cutthroat)
(Streams)	*30	c	channelization for most of reach, veg. present
	*31	c	aerial
	*32	c	
(Lakes)	*33	c	mitigation ponds w/islands
	*34	c	aerial
	*35	a	
Hydrology	*36	a	downstream in B-14, larger flood plain
	*37	b	
	*38	a	
	39	c	& b
	40	c	
	41	a	
Access	*42	a	217, Greenburg Rd
	*43	a	aerial – (agricultural land (not protected))
	*44	c	
	*45	b	only site w/ potential access is B11-12
	46	b/c	
	47	c	
Recreation	*48	c	Not appropriate
	*49	c	
	50	a	
	51	b	(no hunting)
Aesthetics	*53	a	aerial + notes - ag land + new filled land
	*54	a	B16 - garbage in channel
	*55	a	
	*56	b	
	*57	c/d	
	*58	a	
	*59	a	R, PEM, POW

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: 3 Fanno Cr WETLANDS: Fanno Ck (upstream) + Hiteon Creek

Watershed	1		B1 R, Park, mowed lawn, trail
Area	2		B2 R, POW Englewood Pk, trail, scenic
Slope	3		diverse veg, perm. water
	4	d	B3 R, PEM RCG dominant, oak grove
	5	b	adjacent
Designated os	6a		B4 R, PEM, freeway, shopping cart
ag	6b		B5 R, PFO, PEM Ash + RCG + willow, garb.
fo	6c		B19 PEM paved pedestrian Trail
res	6d		B20 PEM, R walking path w. side of creek
com	6e		B-1 "Hiteon Creek"
ind	6f		B-20 + Englewood park
	7	a	(Fanno) B-2
	8	a+c	(Fanno) - severe (DEQ-1988) B-19
	9	a/b	↳ B-3 Fanno Ck
Fish	10	a/c	cutthroat trout upstream B-4
else, etc	11	a, c, d	mig. + res. birds, + herps B-5
	12	c	summer ck →
	13	a/b	
	14	b	
Structure (PARK) os	*15a	22 some park	3 x 2 + 3 = 9 = 9
Actual ag	*15b		
fo	*15c		
(res)	*15d	55%	3 + (5 x 2) + 6.5 + 3 = 22.5
com	*15e		
(ind)	*15f	23%	6.5 + 3 = 9.5 / 41 total
oth	*15g		
	*16	a	
	17	~32 acres	
	18	a	
	19	a	(Call in FP)
os	20a	(some Park)	
Zoned ag	20b		
fo	20c		
res	20d	67%	7 x 2
com	20e		
ind	20f	23%	3.5 x 2
oth	20g		
	21	~32 ac + 15 = 47 acres	

office, *field

small forest E of B-3 but industrial

nice open area/forest W. of B-5

AQUATIC RESOURCE AREA: UNIT 3

Habitat (ow)	*22a	5%	~~1.5~~ acres
(em)	*22b	76%	~24.5 acres
ss	*22c		
(fo)	*22d	19%	~6 acres
	23	b	RC6, ash, salix sp., TYLA, SPDO > dominants
	*24	b	aerial
	*26	a/b	"
	27	a	
	28	~1,5	
Fisheries	29	a	(cutthroat trout)
(Streams)	*30	b	
	*31	c	aerial
	*32	c	
(Lakes)	*33	b	B2 - check aerial
	*34	b	aerial
	*35	c	"
Hydrology	*36	a	fringe wetland along Fanno C.
	*37	b	
	*38	a	
	39	c	
	40	a	
	41	a	
Access	*42	b	
	*43	a	~nice open space (FO, meadow) WofB-5 + meadow Eg B-3
	*44	a	"
	*45	a	
	46	a	a
	47	a	a trail's paved access
Recreation	*48	c	c
	*49	a	a sites B1, 2, 19
	50	a	
	51	b	
Aesthetics	*53	a+b	aerial
	*54	a	shopping cart
	*55	a	
	*56	b	
	*57	b	
	*58	b	
	*59	(a)	PEM, R

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: 4 WETLANDS: C-[illegible] 6

SUMMER CREEK r2 trib's E to W (up to down)

Watershed	1	→	A-1 Summer Creek - good
Area	2		A-2 exc. wildlife Hab
Slope	3		A-4,5,6,7 → A-3 summerlake park - Pond - A-3 wetlands kids feeding ducks
	4	d	A-8 exc. W.H.
	5	c	A-10,11 → A-9 exc. wildlife hab.
Designated os	6a		? A-12
ag	6b		A-14,13 E-36
fo	6c		E-35
res	6d		B-17
com	6e		E-34
ind	6f		↓
	7	b	Fanno Ck
	8	c	Summer Cr. rated severe WQ (DEQ 1988)
fish	9	b	bluegill, yellow perch, lm bass, mosquito fish, red side shiner
	10	b	speckled dace, large sc. sucker, retic, sculpin
birds etc	11	a, c, d	migratory & resident birds, herptiles
	12	c	
	13		
	14	b	
Structure os	*15a	W/ greenway + park	~~acres~~ ~~63%~~ 41 total 26 os
Actual ag	*15b		
fo	*15c		
res	*15d	100%	~~37%~~
com	*15e		
ind	*15f		
oth	*15g		
→	*16	a	except where filled mowed lawns adjacent to park
	17	77 ac	
	18	a	
	19	a	
Zoned os	20a		
ag	20b		
fo	20c		
res	20d	100%	
com	20e		
ind	20f		
oth	20g		
	21	WL OS 77 + 115 = 192	

office, *field

AQUATIC RESOURCE AREA: 4

Habitat ow	*22a	22%	~16.91 ac
em	*22b	22%	~16.72 ac } 77 acres
ss	*22c	<1%	~ 0.5 ac
fo	*22d	55%	~42.5 ac
	23	a	
	*24	b	linear
	*26	b	aerial
	27	a	
	28	17 ac	
Fisheries	29	b	
(Streams)	*30	b	
	*31	b	
	*32	b	
(Lakes)	*33	c	summer lakes
	*34	c	
	*35	b	
Hydrology	*36	a	Pockets of standing water in PFO (killing ash) - beaver work
	*37	? a/b	Not flowing at 135 - restricted in places but generally flowing
	*38	a	(From culvert under Sholl's Ferry Rd)
	39	c	
	40	a	
	41	a	
Access	*42	b	
	*43	a	Conif. DF forest patches (Check aerial)
	*44	a	(Check aerial)
	*45	a	sidewalk at 135, walkway + bridge at Park
	46	a	Summerlake Park
	47	a	
Recreation	*48	c	too small of a waterway for boating
	*49	a	a (SummerLake Park)
	50	a	children were fishing in park but not catching anything
	51	b	? urban area
Aesthetics	*53	b mostly c	(check aerial)
	*54	b	limited garbage in park (soda cans, wrappers)
	*55	(a)	
	*56	a	
	*57	b	
	*58	b	
	*59	a	

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: 5 Derry Dell WETLANDS: E1-5

Creek + Fanno Cr.

Watershed	1		
	2		E1-3 R stream w/alder, ash, willow, HBB
	3		E4 R PEM
	4	d	E5 R
	5	c	
os	6a		
ag	6b		(Riparian)
fo	6c		
res	6d		E1 (NW Photo)
com	6e		E2
ind	6f		E3
	7	b	E4
	8	b+d	Derry Dell not rated E5 (NE photo) (Fanno)
	9	a, b, c	lamprey, 3spine st., sculpin Woodard park
	10	a	cutthroat (upstream - in upper + middle Fanno above Tgard)
	11	a, c, d	Riparian species
	12	b	
	13	C	?
	14	C	
Structure os	*15a	10%	2x2=4
Actual ag	*15b		
fo	*15c		
res	*15d	80%	14x2+5=33
com	*15e		
ind	*15f	10%	5
oth	*15g		
	*16	a	
	17	~9 acres	
	18	a	
	19	a partial	E-4+5 only (partial)
os	20a	w/park + greenway (ca. 10%)	
Zoned ag	20b	*	
fo	20c		
res	20d	~80%	except for E-5
com	20e		
ind	20f	~10%	
oth	20g		
	21	~9+	23 = 32 acres

office, *field

AQUATIC RESOURCE AREA: 5

Habitat ow	*22a	Ø	included in PFO
✓em	*22b	14%	(1.19ac)
ss	*22c		
fo	*22d	86%	(7.53ac)
	23	b	ash, alder, willow, soft rush
	*24	c	
	*26	b	aerial
	27	a	
	28	Ø	
Fisheries	29	b/c	Deer Dell Unknown, Fanno diversic
(Streams)	*30	b	aerial
	*31	b	"
	*32	c	
(Lakes)	*33	—	
	*34	—	
	*35	—	
Hydrology	*36	a	
	*37	b	
	*38	a	
	39	c	
	40	e	3 culverts along reach
	41	a	
Access	*42	a	steep banks
No public access to creek	*43	a/b	aerial - conif. forest at Woodard Park (E-5)
	*44	a	" (")
	*45	b	
	46	b/c	
	47	c	
Recreation	*48	c	
	*49	c	
	50	—	
	51	b	
Aesthetics	*53	b	aerial
	*54	b	
	*55	—	
	*56	b	
	*57	b	
	*58	b	
	*59	b	

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: UNIT 6 WETLANDS: C-15, E-26 — E-33

8/23/94 CMW → RED ROCK CREEK (ranked E-33, 32, 31 first)

Watershed	1	—	
	(2)		(downstream to upstream)
	(3)		E-31, 32, 33 - by 10E Mfg etc.
	4	d	
	5	c	E-30 = Deschampsia
designated os	6a		
in watershed ag	6b		E-29 - Mitigation pond Park 217
fo	6c		1' Culvert inflow
res	6d		outflow thru beaver dam
(com)	6e		WQ?
(ind)	6f		E-28 - Nice big forest w/pond
	7	b	
	8	b+d	E-27 "Enhanced" WL; Mit. area
fish	(9)	?	unknown fenced
	(10)	c	E-26, C-15 Stream condor
Birds etc	(11)	a, c, d	migratory + resident birds & herptiles
	(12)	c	
	13	c	barriers: 68th Parkway, Theater, Dartmouth, 217,
	14	b	Hunzaker Rd.
Structure os	*15a	10 11%	4x1 = 4
18" x2 ag	*15b		
=~14,400' fo	*15c	10 8%	3x1 = 3
=~2.8 miles res	*15d	10 8%	3x1 = 3
actual (com)	*15e	40 39%	4x1 + 3x1 + 3x1 + 2x2 = 14
(ind)	*15f	30 33%	6x2
oth	*15g		
	*16	a	except where filled
	17	~21.85	acres
	18	a	
	19	a →	from E-27 down (~> half of stretch)
zoned os	20a		
ag	20b		
fo	20c		
res	20d		
com	20e	80%	
ind	20f	20%	
oth	20g		
	21	~ 21	+12 = 34 acres

office, *field

1"=400'

Aerials

AQUATIC RESOURCE AREA: 6

Habitat 13"	ow	*22a	9%	~2 acres
	em	*22b	38%	~8 acres
	ss	*22c		
	fo	*22d	53%	~11.25 acres +1.5 = 12.75
		23	a	
		*24	c	aerial
		*26	~~b or c~~	1/2 a 1/2 c (lower end)
		27	a	
		28	~2 acres	
Fisheries (Streams)		29	a? prob b.	gambusia
		*30	b	
		*31	b	aerial
		*32	b	
(Lakes)		*33	c	+ MIT pond; WQ problem, scummy @ outflow
		*34	b 10 a 90	
		*35	c	
Hydrology		*36	a	S. end + E-28; what about E-29?
		*37	a	beaver dams - at least 4 on lower stretch
		(*38)	a	- small culvert under 217
		(39)	c	+ others? : a + b
		40	a	
		41	a	
Access		(*42)	b?	Industry/roads but not bad
		(*43)	a	none @ S. end, some ag + fo above
		*44	b?	
		*45	a	(limited access @ S end via pkg lot)
		46	b/c	
		47	c/b	S end, + N of Hunziker
Recreation		*48	c	
		*49	b	
		(50)	a?	
		(51)	b	
Aesthetics		*53	c	Mostly + some b
		*54	a	Industrial, drums, a few hobo camps
		*55	b	
		*56	b	- not bad
		*57	b	- noisy by 217
		*58	b	
		*59	a	

E-28 + E-30 nice WLs

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: UNIT 7 WETLANDS: E-10 etc (see below)

8/23/94 + 10/5/94 FANNO PARK Fanno Creek

Watershed	1	FANNO	(E7, E38, E8 → E-6 (mit pow))		(upstream to downstream w/ 2 tribs, from W)
	2				
	3				
	4	d	some channelization	E-9	Park
	5	c		E-10	"
designated os in watershed	6a		– some Park + Greenway	E-11	" scenic, aesthetic
ag	6b			E-12	"
fo	6c			E-13	"
(res)	6d			E-14	Ø of Hall w/ limited access
(com)	6e			E-15	
(ind)	6f			E-16	
	7	a			
	8	a+c	Swee (E37, E17, E18 → E-19)		
Fish	(9)	a, b	lamprey, bullhead, stickleback, sculpin, pumpkinseed	E-20	– PFO exc. WH.
	(10)	a	cutthroat trout upstream	E-21	adj. to E20
birdsetc	(11)	a, c, d	migrant + resident birds, herptiles, sm. mammals	E-22	– Ø
	(12)	c		E-23	
	13	a (and a little b)		E-24	R, PEM lower WH value
	14	b	– can travel s.	E-25	
Structure os	*15a	25%	4x2 + 2x1 + = 10		
Actual ag	*15b	22.5%	5x1 + 4x1 = 9		
fo	*15c				40
res	*15d	30%	1x1 + 2x1 + 9x1 = 12		
com	*15e	22.5%	9x1 = 9		
ind	*15f	IND			
oth	*15g				
	*16	a+b			
	17	>752 acres (based on SRI calc.) (53,5+ based on aerial overlay)			
	18	a			
	19	a	all in FP but upper reaches (E7, 38, 8 37, 17)		
os	20a				
Zoned ag	20b				
fo	20c				
(res)	20d	28%	4 + 6 + 3		
(com)	20e	11%	5		46
(ind)	20f	61%	28		
oth	20g				
	21	>752	+ ~		

office, *field

AQUATIC RESOURCE AREA: 7

Habitat (ow, em, ss, fo)	*22a	6%	Mostly PFO + PEM, some OW + SS, R
	*22b	40%	~21.5 ac
	*22c	<1%	~0.5 ac
	*22d	53%	~28.8 ac
	23	a	
	*24	a/b	
	*26	a	& aerial
	27	a	
acres OW	28	3 acres	
Fisheries	29	a	cutthroat trout
(Streams)	*30	a	or b
	*31	b or a	
	*32	a	
(Lakes)	*33		
	*34		
	*35		
Hydrology	*36	a	
	*37	a-b	? culvert + beaver dams? > partially restricted
	*38	a	
	39	c	
	40	a	- some channelization
	41	a	
Access	*42	b	
	*43	a	Forest, Meadow (along RR tracks)
	*44	a	park greenway
	*45	a	" "
	46	a	+b
	47	a	list viewpoints
Recreation	*48	a & b	
	*49	a	
	50	a?,	fishing?
	51	b	
Aesthetics	*53	a	and b
	*54	b	
	*55	—	
	*56	a	
	*57	b	
	*58	b	
	*59	a	

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: UNIT 8 WETLANDS: FANNO CREEK (downstream) + BALL CREEK

Watershed	1			
Area	2			
Slope	3			G-4 Fanno
	4	d		G-5
	5	c		G-3 ← G2, G1 Ball Ck
Designated os	6a			G6.
ag	6b			G7
fo	6c			G8
res	6d			G9
com	6e			G10 } High Q with Park
ind	6f			G11 }
	7	a		G12
	8	a+c	severe (DEQ 1988)	G13
fish	9	a,b	cutthroat trout	G14 to Durham
	10	a	upstream "	
birds etc	11	a,c,d	green heron	G-15 Isolated
	12	c		
	13	a		
	14	b	(N end will be dereloped)	
Structure os	*15a			
ag	*15b	15%	1.5 + 3 = 4.5	
Actual fo	*15c	3%	1	
res	*15d	34%	1.5 + 2 + 5 + 2 = 10.5	31
com	*15e	3%	1	
ind	*15f	45%	2 + 3 + 3 + 6 = 14	
oth	*15g			
	*16	b/a	compacted in N (ag areas) - not in south for areas	
	17	~40 acres		
	18	a		
	19	a	except Ball Creek + G-15	
os	20a	→ a few parks		
Zoned ag	20b			
fo	20c			
res	20d	50%		
com	20e			
ind	20f	50%		
oth	20g			
	21	~40 + ~16 = 56 acres		

office, *field

1"=400' Aerials

AQUATIC RESOURCE AREA: UNIT 8

Habitat (ow)	*22a	5%	~25acres
(em)	*22b	29%	~12.5 acres
ss	*22c		
(fo)	*22d	66%	~ 25 acres
	23	a	
	*24	b	
	*26	a/b	— ranges from Ø to >100'
	27	a	
	28	~2.5	-
Fisheries	29	a	cutthroat trout
(Streams)	*30	a	
	*31	b or c	
	*32	a	
(Lakes)	*33	(a)	
	*34	X	
	*35		
Hydrology	*36	a	
	*37	b	— note - some areas have restricted outlet -
	*38	a	i.e. depressions in FPs (so = a?)
	39	c+a+b	
	40	a	
	41	a	- seasonal WLs present too
Access	*42	a	(steep embankment)
	*43	a	ag lands, UPL FOR @ south
	*44	b	
	*45	b	other than @ S. end - can drive to overlook
	46	b/c	
	47	b/c	
Recreation	*48	c	
	*49	b	
	50	a	
	51	b	
Aesthetics	*53	a+b	
	*54	b	
	*55	—	
	*56	b	— at south
	*57	b	
	*58	b	
	*59	a	

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: 9 Tualatin River WETLANDS: F15 - F23

Watershed	1	TUALATIN	F15,16 PFO, POW, cook park, diverse
	2		natural, quiet, perm. pond
	3		F17 PEM, RCG mono., bulldozed '94, Cook P.
	4	b+d	(Scoggins Valley Dam) F18,19 PEM, POW, Rseas. mitigation w/islands
	5	c(?)	Cook Park
os	6a		F20,21 PFO+ Cook Park, Diverse
ag	6b		Fantastic!! Rec. trails. Natural
fo	6c		vegetation - RCG, Rudi - but great
res	6d		restor. potential
com	6e		F22 PFO, - Natural, perm - ponding
ind	6f		F23 Avalon Park, Condos recreational trails
	7	a	Noise from 99,
	8	a+c	Tual. NEW F26 grazed depression
	9	a, b, c, d, e	cutthroat, suckers, lm bass, Squawfish, Chinook, Coho
	10	a	" bluegill
	11	a, c, d	
	12	c	
	13	a	
	14	a	
Structure os	*15a	33%	~12 (PARK, greenway)
ag	*15b	67%	~25
fo	*15c	some	- along River Greenway
res	*15d	some	- all along boundary
com	*15e		
ind	*15f		
oth	*15g		
	*16	a	
	17	~24	acres
	18	b	Tualatin River
	19	a	(yes, all in FP)
os	20a	PARK	- Mostly except for F-18,19
ag	20b		
fo	20c		
res	20d	some	- all along border
com	20e		
ind	20f		
oth	20g		
	21	>100	acres

Actual / Zoned

office, *field

AQUATIC RESOURCE AREA: 9

Habitat \ ow	*22a	22%	~5.25 acres }
\ em	*22b	33%	~7.75 acres } 23.75 acres
ss	*22c		
\ fo	*22d	45%	~10.75 acres
	23	a	
	*24	b	"a" in the lower end of Cook Park
	*26	a	aerial (needed larger buffer @ F-18,19 upslope)
	27	a	
	28	~5.25	acres
Fisheries	29	a	ODFW
(Streams).	*30	a	
	*31	? b	
	*32	b?	
(Lakes)	*33	c	
	*34	c	aerial
	*35	b	F15-16-Excell F18-19 NoCover logs etc..
Hydrology	*36	a	
	*37	b	
	*38	a	
	39	a/c	toe of slope, depression areas, bench
	40	a	above Tualatin R
	41	a	on most sites
Access	*42	b	
	*43	a	aerial ag. land, Forest
	*44	a	
	*45	a	Avalon Park + Cook Park provide access +/
	46	a	(") OR viewing
	47	a	(")
Recreation	*48	a	Boat ramp + dock at Cook Park
	*49	a	Avalon Park + Cook Park
	50	a	in Tualatin River
	51	b	
Aesthetics	*53	a	aerial (Parts of Avalon + Cook are mowed)
	*54	b	
	*55	—	
	*56	a	b at Avalon Pk
	*57	a	c at Avalon Pk due to Highway 99W
	*58	b	
	*59	a	PEM, PFO

AQUATIC RESOURCE AREA: 10

Habitat ✓ow	*22a	46%	~2.76 acres
✓em	*22b	25%	~ 1.5 ac
ss	*22c		
✓fo	*22d	29%	~ 1.75 acres
	23	a	
	*24	b/c	aerial
	*26	a	"
	27	a/c	
	28	~2.76	acres
Fisheries	29	b/c	?
(Streams)	*30	a	
	*31	a	aerial
	*32	c	
(Lakes)	*33	c	stormwater pond (F24) Beaver Pond (F68)
	*34	c	aerial
	*35	c	
Hydrology	*36	a	stream levels + pond levels rise; evidence = veg.
	*37	a/b	beaver dam, culverts
	*38	a	
	39	c	
	40	e/c	– GC ponds
	41	a	
Access	*42	b/a	hazards at golf course ponds
	*43	a	aerial: ~~eg~~, forest
	*44	b	
	*45	b	steep slopes
	46	b	+ c (F6)
	47	c	
Recreation	*48	c	
	*49	c	
	50	a?	
	51	b	
Aesthetics	*53	a/b	- B = golf course, +F25
	*54	b	
	*55	–	
	*56	a	
	*57	b	
	*58	b	
	*59	a	R, PEM

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: 10 WETLANDS: F1-8 (F13,14), New F24, F25

→ Unnamed tribs to Tualatin River

Watershed	1		F3 = R perennial stream w/sparse veg
	2		Red alder + willow (.06ac) POW (.06ac)
	3		F4,5 R (.71) PEM (.71)
	4	d	F6-8 PFO (1.75) POW (1.75) Alder + BCW canopy-as canal + pasture
	5	c	? New F24 POW (.5ac), stormwater treatment, isol.
os	6a		New F25 Copper Creek - stream corridor
ag	6b		F13 F14 F1, F2 golf ponds (1.76ac)
fo	6c		
res	6d		
com	6e		
ind	6f		
	7	a	golf course ponds upstream
	8	b+d	Not rated by DEQ, small drainages
fisheries	9	f (?)	unlikely
	10	c	?
else	11	a, c, d	
	12	c	
	13	a/b	
	14	b	
Structure os	*15a		
Actual ag	*15b	37%	5.5
fo	*15c	10%	1.5
res	*15d	53%	8
com	*15e		
ind	*15f		
oth	*15g		
	*16	a	
	17	~6 ac	
	18	a	
	19	a - partial - F-6,7+8 in FP (F3,4,5 not in FP)	
os	20a	20%	in Greenway
ag	20b		
Zoned fo	20c		
res	20d	80%	(or 100)
com	20e		
ind	20f		
oth	20g		
	21	~4.25	+ ~12 ac = >16 ac

office, *field

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY: CITY OF TIGARD

AQUATIC RESOURCE AREA: 11 WETLANDS: F1, 2, 9-14, F27

Pinebrook Ck - Ponds (Mallard Lakes)

Watershed		1	-	F27, Pinebrook stream corridor
		2		F 9,10 Neighborhood Ponds surr. by
		3		(POW 1.27) residences + trail (Mallard Lakes)
		4	a/d	MLakes dom F 11,12 Farm Ponds, totally trampled
		5	a/c	(POW .78)
	os	6a		
	ag	6b		
	fo	6c		
	res	6d		
	com	6e		
	ind	6f		
		7	b	From Upstream to Downstream
		8	b+d	Not rated by DEQ F-12, F-11 Farm Ponds
		(9)	f	? No information F-9, F-10 Mallard Lakes
		(10)	c	NA? F27 Pinebrook Ck
		(11)	a, c, d	
		(12)	c	
		13	c/b	(b = Pinebrook)
		14	b	
Structure	os	*15a		
	ag	*15b	35%	
Actual	fo	*15c		
	res	*15d	65%	
	com	*15e		
	ind	*15f		
	oth	*15g		
		*16	b	especially F11, 12 + F27 "trails" in riparian area
		17	~2ac	
		18	a	
		19	b	
	os	20a	plus some greenway (Either F-9,10 or to East)	
	ag	20b		
	fo	20c		
Zoned	res	20d	100% - plus	
	com	20e		
	ind	20f		
	oth	20g		
		21	32ac	@ F11, 1 ac @ F-10 = >37ac

office, *field

AQUATIC RESOURCE AREA: 11

Habitat — ow	*22a	100%	~2 acres
em	*22b		
ss	*22c		
fo	*22d		
	23	c/b	b for F9-10
	*24	c	
	*26	b	aerial
	27	c/a?	connected ~~through~~ culverts
	28	~2 acres (100%)	
Fisheries	29	c	? unknown
(Streams)	*30	a	
	*31	a	
	*32	b	
(Lakes)	*33	c	
	*34	c	farm ponds have O veg.
	*35	c	
Hydrology	*36	a	
	*37	b/a	
	*38	a	
	39	b/c	
	40	b	+ culverted
	41	a	
Access	*42	a/b	cattle, ø Hall Blvd, None at F9-10, 27
	*43	a	aerial ag (F11-12) Forest - riparian N. of Mallard L.
	*44	a/b	a for F9-10, 27 b for F11, 12
	*45	c/a	a for F9-10
	46	b/a	open to neighbors F9-10
	47	c/a	access " " ; a for F9, 10, 27 trail + bike path
Recreation	*48	c	
	*49	a/c	maintained trail F9-10.
	50	a/ø	a for Mallard Lakes
	51	b	
Aesthetics	*53	b	except F11, 12 grazed extensively
	*54	b	
	*55	—	
	*56	b	
	*57	a	
	*58	b	
	*59	b	

Answer sheets & summary sheets

Wetland assessment questions: answer sheet				
Wetland identifier	Unit 1 Upper Ash Cr. N + S Forks	Unit 2 Lower Ash CR	Unit 3 Upper Fanno + Hatteon Cr.	Unit 4 Summer Cr + 2 tribs.
Wildlife habitat				
Question 1	a	a	a	a
Question 2	a	b	b	a
Question 3	b/c	c	b	b
Question 4	b	a	a	a
Question 5	a	b	a	a
Question 6	a	a	a	a
Question 7	a	b	c	c
Question 8	b	b	b	b
Question 9	b/c	b	a/b	b
Assessment descriptor	A/~~B~~	B	A	A
Fish habitat				
Streams and rivers				
Question 1	b	c	c	b
Question 2	b	c	b	b
Question 3	c	c	c	b
Question 4	a	b	c	c
Question 5	c	c	c	c
Question 6	b	b	a/b	b
Lakes and ponds				
Question 1	c	c	b	c
Question 2	a	c	c	b
Question 3	b	c	b	c
Question 4	a	b	c	c
Question 5	c	c	c	c
Question 6	–	–	–	b
Assessment descriptor	B	B	B	B
Water quality				
Question 1	a	a	a	a
Question 2	a	a	a	a
Question 3	a	a	a	a
Question 4	a	a	a	a
Question 5	a	a	a	a
Question 6	c	b	a	a
Assessment descriptor	A	A	A	A

Wetland assessment questions: answer sheet				
Wetland identifier	Unit 1	Unit 2	Unit 3	Unit 4
	Upper Ash CR	Lower Ash CR	Upper Fanno Cr + Hitteon Cr	Summer Cr
Recreation				
Question 1	b/c	c (a-B11)	a	a
Question 2	c	c	c	c
Question 3	a/c	c	a	a
Question 4	b	b	a	a
Question 5	–	–	–	–
Question 6	b	b	b	b
Assessment descriptor	B/C	C	A	A
Aesthetic quality				
Question 1	a	a	a	a
Question 2	b	a	b	b
Question 3	b/a	a	a/b	b
Question 4	b	b	b	a
Question 5	b	c	b	b
Assessment descriptor	A	B	A	A

Wetland assessment questions: answer sheet				
Wetland identifier	Unit 1	Unit 2	Unit 3	Unit 4
	Upper Ash Cr.	Lower Ash Cr.	Upper Fanno Cr + Hitteon Cr	
Hydrologic control				
Question 1	a	a	a	a
Question 2	a	a	a	a
Question 3	a	a	a	a
Question 4	b	b	b	a
Question 5	a	c	c	b
Question 6	a	a	a	a
Question 7	a	a	a	a
Assessment descriptor	A	A	A	A
Sensitivity to impact				
Question 1	c	c	c	c
Question 2	c	b	a	a
Question 3	a	a	a	a
Question 4	a	a	a	a
Question 5	a	b	b	a
Assessment descriptor	B	B	B	B
Enhancement potential				
Question 1	a/c	a/c	a/c	a/c
Question 2	a	b	a	a
Question 3	a	a	a	a
Question 4	a	a	a	a
Question 5	a	a	a	a
Question 6	b	b	b	b
Assessment descriptor	A	B	A	A
Education				
Question 1	b/c	a/c	b	a/b
Question 2	a	b	a	a
Question 3	b	b	a	a
Question 4	a/c	c	a	a
Question 5	a/b	b	a	a
Question 6	a/c	c	a	a
Assessment descriptor	C	C	B	A

Answer sheets & summary sheets

Wetland assessment questions: answer sheet				
Wetland identifier	Unit 5	Unit 6	Unit 7	Unit 8
	Derry Dell Cr.	Red Rock Cr	Fanno Cr +	Fanno Cr (below)
Wildlife habitat	+ Fanno		unnamed trib	+ Ball Cr.
Question 1	a	a	a	a
Question 2	a	a	a	a
Question 3	c	c	a	b
Question 4	c	a	a	a
Question 5	a	a	a	a
Question 6	a	a	a	a
Question 7	a	a	c	c
Question 8	b	b	b	b/c ask mark Fed vs Comm Res
Question 9	b	a/c	a	a
Assessment descriptor	A	B	A	B
Fish habitat				
Streams and rivers				
Question 1	b	b	a	b
Question 2	b	b	a	a
Question 3	c	b	a	a
Question 4	a	a	c	c
Question 5	c	b	b	c
Question 6	b/c	b	a	a
Lakes and ponds				
Question 1	—	c		
Question 2	—	c		
Question 3	—	b		
Question 4	—	a		
Question 5	—	b		
Question 6	—	b		
Assessment descriptor	B	B	A	B
Water quality				
Question 1	a	a	a	a
Question 2	a	a	a	a
Question 3	a	a	a	a
Question 4	a	a	a	a
Question 5	a	a	a	a
Question 6	c	c	a	a
Assessment descriptor	A	A	A	A

Wetland assessment questions: answer sheet				
Wetland identifier	Unit 5	Unit 6	Unit 7	Unit 8
	Derry Dell Cr. + Fanno	Red Rock Cr	Fanno Cr + unnamed trib.	Fanno Cr. + Ball Cr
Hydrologic control				
Question 1	a	a	a	a
Question 2	a	a	a	a
Question 3	a	a	a	a
Question 4	a/b	a	a	a/b
Question 5	a	a	b	b
Question 6	a	a	a	a
Question 7	a	a	a	a
Assessment descriptor	A	A	A	A
Sensitivity to impact				
Question 1	c	c	c	c
Question 2	c	c	a	a
Question 3	a	a	a	a
Question 4	a	a	a	a
Question 5	a	a	a	a
Assessment descriptor	B	B	B	B
Enhancement potential				
Question 1	a/c	a/c	a/c	a/c
Question 2	a	a	a/b	a/b
Question 3	a	a	a	a
Question 4	a	a	a	a
Question 5	a	a	a	a
Question 6	b	b	b	b
Assessment descriptor	A	A	A	A
Education				
Question 1	a	c/a	a/b	c/a
Question 2	c	b	a	b
Question 3	a	b	a	a-b
Question 4	b	b	a	b
Question 5	b	b	a	b
Question 6	c	c	a	c
Assessment descriptor	C	C	A	B/C

Wetland assessment questions: answer sheet				
Wetland identifier	Unit 5 Derry Dell Cr + Fanno	Unit 6 Red Rock Cr	Unit 7 Fanno Creek	Unit 8 Fanno Creek
Recreation				
Question 1	c	b/c	a	c
Question 2	c	c	b	c
Question 3	c	b	a	b
Question 4	a	b	a	a
Question 5	—	—	a	a
Question 6	b	b	b	b
Assessment descriptor	C	C	A	C
Aesthetic quality				
Question 1	c	a	a	a
Question 2	a	c	a	a
Question 3	b	c	a	a/b
Question 4	b	b	a	b
Question 5	b	c	b	b
Assessment descriptor	A	C	A	A

Answer sheets & summary sheets

Wetland assessment questions: answer sheet				
Wetland identifier	Unit 9	Unit 10	Unit 11	
	Tualatin R.	Unnamed Trib.	Pinebrook +	
Wildlife habitat	+ seeps	+ Coppei Ck	4 ponds	
Question 1	a	a	b	
Question 2	a	a	b	
Question 3	b	b/c	c	
Question 4	a	a	a	
Question 5	a	a/b	b	
Question 6	a	a	a	
Question 7	c	a	a	
Question 8	a (cook P)	b	b	
Question 9	a	a	b	
Assessment descriptor	A	A	B	
Fish habitat				
Streams and rivers				
Question 1	b	a	a	
Question 2	a	a	a	
Question 3	b	c	b	
Question 4	c	a	a	
Question 5	a	c	c	
Question 6	a	b?	b/c?	
Lakes and ponds				
Question 1	c	stormwater	c	
Question 2		+ golf	c	
Question 3		course ponds	c	
Question 4			a	
Question 5	a		c	
Question 6			b/c	
Assessment descriptor	A	B	B	
Water quality				
Question 1	c/a	a	b/a	
Question 2	a	a	a	
Question 3	a	b/a (w/out gc. ponds)	b	
Question 4	a	a	b	
Question 5	c	a	a	
Question 6	a	b	c	
Assessment descriptor	A	A	B	

Wetland assessment questions: answer sheet				
Wetland identifier	Unit 9	Unit 10	Unit 11	
	Tualatin R	Unnamed trib. +	Pinebrook +	
Hydrologic control	+ seeps	Copper Cr.	ponds	
Question 1	a	a/b	b	
Question 2	a	a	a	
Question 3	a	a	b	
Question 4	b	a/b	a/b	
Question 5	c	c	c	
Question 6	a	a	a	
Question 7	a	a	a	
Assessment descriptor	A	A	B	
Sensitivity to impact				
Question 1	c	c	b	
Question 2	a	c	c	
Question 3	c	a	a	
Question 4	c	a	a/b ?	
Question 5	a	c	c	
Assessment descriptor	B	B	B	
Enhancement potential				
Question 1	a/c	a/c	a	
Question 2	a	a	b	
Question 3	a/b	a	a/b	
Question 4	a	a	a	
Question 5	a	a	a	
Question 6	b	b	b	
Assessment descriptor	A	A	B	
Education				
Question 1	a	a	a/b	
Question 2	a	a/c	a/b	
Question 3	a	a	b	
Question 4	a	b	a/b	
Question 5	a	b	a	
Question 6	a	c	a/c	
Assessment descriptor	A	[B] → C	B	
		No access	for neighborhood	

Wetland assessment questions: answer sheet				
Wetland identifier	Unit 9	Unit 10	Unit 11	
	Tualatin R.	trib. to Tualatin	(ponds	
Recreation	+ seeps		+ Rinebrook	
Question 1	a	C	C/a	
Question 2	a	C	C	
Question 3	a	C	C/a (FQ, 10)	
Question 4	a	a	b	
Question 5	a	a?	—	
Question 6	b	b	b	
Assessment descriptor	A	C	B	
Aesthetic quality				
Question 1	a	a	b	
Question 2	a	a	a	
Question 3	a	a/b	b	
Question 4	a/b	a/b	b	
Question 5	a/c	b	a	
Assessment descriptor	A	A	B	