

**City of Woodburn
Local Wetlands Inventory and
Riparian Assessment**

Prepared for
The City of Woodburn

Prepared by



Shapiro and Associates, Inc.

January 5, 2000

DIVISION OF STATE LANDS
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City of Woodburn Local Wetlands Inventory and Riparian Assessment

Prepared for

Teresa Engeldinger
The City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071

Prepared by

Dan Cary
Colin MacLaren
John Gordon
Ed Strohmaier
Peggy O'Neill
Paul Gill
Sylvia Jung
Shapiro and Associates, Inc.
1650 N.W. Naito Parkway, Suite 302
Portland, Oregon 97209
SHAPIRO Project #2981036

APPROVED WETLANDS INVENTORY
Oregon Division of State Lands
Meets LWI standards
Date 2/22/99 Approved by A. Lalka

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1.0 INTRODUCTION

The City of Woodburn (City), like many other Willamette Valley communities, is being discovered as a very suitable place to live and develop businesses. As a result, the City is experiencing significant growth. Over four hundred new residential building lots have been approved in the last few years. Many large, undeveloped properties are zoned for development, both residential and commercial (Figure 1). To plan for and manage continuing growth, the City is conducting Periodic Review. Part of this review includes a buildable lands inventory. A stormwater master plan and parks/open space master plan also are being prepared. Completion of a Local Wetland Inventory (LWI) is critical to the completion of these master plans.

The City was awarded a 1997/1998 Wetlands Planning Assistance Grant by the Oregon Division of State Lands (DSL), funded by the U.S. Environmental Protection Agency (EPA) Region X. The work described in the grant includes conducting a LWI and a Riparian Assessment. An approved LWI will replace the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps that are currently the City's only source of information on where wetlands are located. The LWI will be incorporated into the statewide wetlands inventory.

On May 14, 1998, the City hired Shapiro and Associates, Inc. (SHAPIRO) to conduct the LWI and Riparian Assessment using SHAPIRO wetland scientists experienced in conducting LWIs: Dan Cary, Colin MacLaren, and John Gordon. Mr. Cary, project manager, is certified as a wetland delineator by the U.S. Army Corps of Engineers (COE). Ed Strohmaier and Paul Gill, trained wetland delineators, and Peggy O'Neill, a wetland technician, assisted in the inventory. Sylvia Jung, a cartographer with experience mapping LWIs, produced the digitized mapping products. Field work was performed between July 21 and September 1, 1998.

This report documents the methods and results of the LWI. In addition, the relative quality of the wetlands was assessed using the Oregon Freshwater Wetland Assessment Methodology (OFWAM, Roth, et al., revised edition, 1996). This information was used to identify significant wetlands within the City's Urban Growth Boundary (UGB) to address Goal 5 requirements for wetland protection. Riparian assessments were conducted using the Urban Riparian Inventory and Assessment Guide (Riparian Guide; Pacific Habitat Services, 1998). A brief description of the OFWAM and Riparian Guide processes are provided in Sections 2.3 and 2.4 of this document, and the summary sheets for each wetland are included in the appendices.

Methods used to conduct the study are found in section 2.0; project area characteristics are described in section 3.0; wetland findings are reported in section 4.0; and riparian findings are reported in section 5.0. Section 6.0 includes a summary of the project, and Section 7.0 lists all references used. Appendix A contains wetland inventory section maps; Appendix B contains data sheets, OFWAM assessment worksheets, and results organized by watershed and wetland code; Appendix C contains riparian assessment worksheets and results; Appendix D contains a complete OFWAM guide; and Appendix E contains the riparian guide in its entirety.

2.0 SOURCE MATERIALS AND METHODS

2.1 Source Materials

Available information and data were compiled and reviewed prior to field work. For example, soil mapping information was compiled from data available from the U.S. Department of Agriculture (USDA) Soil Conservation Service (SCS, now known as the Natural Resource Conservation Service [NRCS]) county soils survey. U.S. Geological Survey (USGS) 7.5-minute topographic quadrangles, USFWS NWI maps, flood insurance rate maps from the U.S. Department of Housing and Urban Development Federal Insurance Administration (FIRM), City zoning maps, and tax assessor maps, also were consulted.

A digitized base map of the study area was obtained that included layers for tax lot lines, street names, right-of-ways, and section boundaries. A series of recent, spring, color, aerial photographs were obtained for the study area at the scale of the base map. Other source materials included: Oregon Rivers Information System (ORIS) fish presence data base; Oregon Department of Environmental Quality (DEQ) 303(b) report (1998); Classification and Catalog of Native Wetland Plant Communities in Oregon (John Christy, 1993); and a current data search from the Oregon Natural Heritage Program (ONHP). This information was used to develop a preliminary indication of the location and possible quality of wetlands, facilitate on-site gathering of data, and complete the assessments.

The City, with assistance from SHAPIRO, identified properties likely to contain wetlands. The owners of the identified properties then were sent an access permission letter. Properties to which access was granted were located on the aerial photograph and later noted on inventory maps.

2.2 Local Wetlands Inventory

2.2.1 Overview of the Local Wetlands Inventory

The 1989 Oregon State Legislature authorized the DSL to develop a statewide wetlands inventory suitable for planning and regulatory purposes. Pursuant to ORS 196.674, in 1994 the DSL established LWI standards and guidelines, which are located in OAR 141-86-180 through 141-86-240. The purpose of an LWI is to locate, map, and classify wetlands by type (such as forested wetlands) over a relatively large geographic area. In accordance with LWI standards, the approximate boundaries of all wetlands at least 0.5 acre in size are identified in the inventory. No wetland boundaries were staked or flagged by SHAPIRO for this study. This LWI does include wetland delineations approved by the DSL and COE. These wetland delineations were confirmed within the last ten years, but no later than the end of the field collection period.

2.2.2 Overview of Local Wetlands Inventory Methods

A LWI is conducted using color or color infrared, aerial photographs taken within five years of the inventory initiation and at a minimum scale of 1" = 800' (1:9600). In general, wetlands are located using aerial photographs. Then site visits are conducted (on-site) option, as described in

the LWI standards and guidelines. In cases in which property access is denied, wetlands can be mapped off the site using other information, such as topographic maps and aerial photographs, to aid in locating wetlands. The product of an LWI is a parcel-based map showing the approximate location of wetlands at a minimum scale of 1" = 800'. The parcel-based map allows the property owner, local jurisdiction, and DSL to know which tax lots may contain wetlands.

2.2.3 On-site Wetland Determination

Where property access permission had been granted, on-site wetland determinations were made using the *Corps of Engineers Wetlands Delineation Manual, Technical Report Y-87-1* (Manual; Environmental Laboratory, 1987). The COE and DSL recognize the use of the 1987 Manual for delineation of wetlands.

The Manual provides technical criteria, field indicators, and recommended procedures to be used in determining whether an area is a jurisdictional wetland, and the location of the wetland boundaries. The Manual requires that three technical criteria be met in undisturbed situations before areas can be considered wetland under federal or state jurisdiction. These criteria are the presence of hydric soils, hydrophytic vegetation, and wetland hydrology under normal circumstances. If one of these criteria cannot be determined because of disturbance caused by recent natural events or human activities, an alternative method must be used in making wetland determinations.

Observations of soils, vegetation, and hydrology were made using a modification of the Manual's "Routine Onsite" method. Data sites were selected to provide a valid representation of site conditions. Data were collected from representative sampling locations to justify the location of the wetland boundary. However, additional sample sites were investigated between these data points to verify changes in the three parameters, further characterize the wetland, and refine the wetland boundary.

Hydrologic Assessment

The Manual defines wetland hydrology as saturation within a major portion of the root zone (usually above 12 inches), typically for at least 12.5% of the growing season. The growing season for any given site or location is determined from SCS or NRCS data and information. The growing season is defined as the frost-free period recorded at the nearest recording station five years out of ten. Wetland hydrology field indicators were recorded for each excavated soil pit. Data typically recorded include depth of inundation, water table, and soil saturation. Primary indicators, such as sediment deposits, watermarks, drift lines, and drainage patterns, or secondary indicators, such as oxidized rhizospheres (root zones), also were recorded.

Soils Assessment

Hydric soils are those that have formed exclusively under wet conditions (soils that characteristically have high water tables, are ponded or frequently flooded, or are otherwise saturated for extended periods during the growing season). The possible location of hydric areas on the site was obtained from the SCS or NRCS county soil survey. Soil pits were excavated to

a depth of 18 inches or more in selected locations in relation to identified potential wetland areas. Soil profiles were examined for hydric soil indicators. Soil characteristics (matrix color, mottling, texture, and other features) were recorded.

Vegetation Assessment

Hydrophytic vegetation consists of those plant species that have adapted to growing in substrates that are periodically deficient of oxygen because of saturated soil conditions. Species lists of commonly encountered plants and their status have been prepared for all regions of the country by the USFWS (1988 with 1993 supplement). The status of a particular plant is the probability of that plant occurring in a wetland. Five basic groups of vegetation are recognized in the USFWS list based on their frequency of occurrence in wetlands (Reed, 1988, 1994). These categories, referred to as the "wetland indicator status" (from the wettest to driest habitats), are as follows: obligate wetland (OBL) plants; facultative wetland (FACW) plants; facultative (FAC) plants; facultative upland (FACU) plants; and obligate upland (UPL) plants. Refer to data sheets in Appendix B for these categories. Many plants are found in transitional areas between wetlands and uplands. These areas are usually characterized by flat to gradually sloping terrain where the species composition may not reflect true wetland boundaries. In such areas, a species with a status of FACU may extend into the wetland areas, just as FACW species may be present in upland areas.

A visual percent-cover estimate of the dominant species of the plant community was performed for key sample sites. A 30-foot-radius area was investigated for dominant tree and shrub species, and a 10-foot-radius area for dominant herbaceous species, using soil pit locations as a center of reference. Dominance of plant species was determined by estimating their percent areal cover per stratum (herbaceous, shrubs, woody vines, and trees). Species from each stratum were listed together in descending order of percent cover. A determination as to predominance of hydrophytic vegetation was made using the 50-20 technique. The most abundant plant species (when ranked in descending order of abundance and cumulatively totaled) that, when totaled, immediately exceed 50% cover, plus any species comprising more than 20% cover, represent the dominant species (Federal Interagency Committee for Wetland Delineation, 1989). If more than 50% of the dominant species included by the above criteria are FAC or wetter, the vegetation community is considered hydrophytic. FAC- species are excluded and are considered non-hydrophytic vegetation. The "-" indicates plant species that prefer slightly drier conditions on average. A "+" indicates plant species that prefer slightly wetter conditions on average.

2.2.4 Off-site Determination

No on-site sampling could be conducted where property access permission had been denied or not explicitly approved. Therefore, off-site determinations were made on the basis of aerial photograph inspection, all available mapped attributes (e.g., SCS soil surveys and NWI maps, confirmed determinations and delineations), and, where available, a reconnaissance from nearby public or approved vantage points. Observations from vantage points included documentation of dominant vegetative communities (forested, scrub/shrub, or emergent) and water regimes (such as ponded areas and obviously wet meadows). Approximate wetland boundaries were drawn on aerial photographs. Boundaries determined in this way may not be sufficiently accurate for state

and federal jurisdictional determinations because of the absence of actual on-site data. In addition, where views into properties from vantage points were not possible or otherwise restricted, and where aerial photographic and mapped information was inconclusive, some wetland areas may have been missed and were not inventoried.

2.2.5 Classification of Wetlands

The Cowardin classification system was used to classify the types of wetlands inventoried (Cowardin, et al. 1979). The Cowardin system classifies wetlands according to general systems, structure, vegetation types, water regime, and other modifiers. For example, wetlands within the Woodburn study area are of the palustrine class. Palustrine combines vegetated freshwater wetlands (traditionally called marshes, swamps, bogs, fens, and wet prairies) and small, shallow, permanent, or intermittent water bodies called ponds that are less than 2 meters (6.6 feet) deep. This classification applies to emergent, scrub/shrub, and forested wetland areas. Wetlands dominated by grasses and other herbaceous plants are classified as PEM, Palustrine Emergent. Wetlands dominated by woody species less than 30 feet high are classified as PSS, Palustrine Scrub/Shrub. A site dominated by woody species over 30 feet high is classed as PFO, Palustrine Forested. The NWI inventory maps also use the Cowardin classification system for mapped wetland habitats.

2.2.6 Data Compilation and Interpretation

Data were recorded in the field and subsequently transferred to computerized standard wetland delineation data sheets. Sampling site locations were recorded on the aerial photographs. The approximate boundaries of wetlands and location of sample sites were drafted on the aerial photograph in the field. These boundaries subsequently were digitized onto the AutoCAD maps. All wetlands received a unique code to aid in their identification. The code was based on the drainage basin the wetland was located in and the number of wetlands within each basin. In general, parts of wetlands received separate codes where major roads or distinct breaks in wetland character occurred. Some wetlands were grouped and coded as one unit where they were adjacent, hydrologically linked, or similar in character, thus functioning as a unit. Wetland delineation boundaries confirmed by the DSL were digitized from photocopies of maps in reports submitted to the DSL. In addition, mitigation areas were drawn on the maps, if their locations were known.

2.2.7 Confirmation of LWI

A draft set of maps and report is provided to the DSL for its confirmation and assessment. Once the DSL has reviewed the documents, SHAPIRO will review the comments and make modifications to the draft wetland maps and report. The products are then resubmitted for final approval. The status of this report as draft or final is indicated on the report cover and maps.

2.3 Wetland Quality Assessment

2.3.1 Overview of the Oregon Freshwater Wetland Assessment Methodology

The OFWAM was developed by an interagency committee to assess the relative quality of a wetland. The methodology is intended for use by planners, public officials, and community members for planning and educational purposes. Completion of this methodology provides basic information, which is not intended for evaluation of detailed, site-specific impacts on individual wetlands.

OFWAM is based on the idea that an understanding of the wetland system functions and conditions at local, state, and federal levels is necessary to make management decisions. Recommended uses of OFWAM include collection of basic information about wetlands in an assessment area, creation of a database of functions and conditions and other wetland data, support of decision making and planning within a jurisdiction, and education. OFWAM requires that the same functions and conditions be evaluated for each wetland within a study area. There are, in addition, other considerations noted in the following sections that determine the wetland's overall value.

2.3.2 Application of OFWAM

OFWAM assessments were partially completed during field work using data gathered in the field. Other source materials were used to complete the assessments. The methodology provides qualitative information on the relative value of wetlands based on a series of questions related to wetland functions. The following functions are assessed: wildlife habitat, fish habitat, water quality, hydrologic control, sensitivity to impact, enhancement potential, education, recreation, and aesthetic quality. Each function is assessed by criteria that give an indication of whether a wetland function is (1) intact, (2) affected or degraded, or (3) lost or not present. OFWAM is designed to be open-ended; therefore, other functions and conditions may be added later, or some may be dropped if not important to the user.

The OFWAM results and a summary of the functions and conditions for each wetland are included in Appendix B. Additional details about assessing the functions and conditions are provided in Appendix D.

2.3.3 Wetlands of Special Interest for Protection

A subset of questions within OFWAM provides a method to assess whether any wetlands within the study area should be considered Wetlands of Special Interest for Protection (WSIP). WSIP assesses whether the wetland is currently in a management plan, is protected by regulatory rules or statutes, or is uncommon in Oregon. The presence of rare, threatened, or sensitive species within an area makes the wetland a potential WSIP. An affirmative answer to any one of these questions also will place the wetland into a category for protection. This information could be used in management decisions for a site. The use of OFWAM and WSIP screening questions

will assist in an overall evaluation of the wetlands in the assessment area. Many of these WSIP questions are repeated in the locally significant criteria questionnaire (see next section), so the results were combined in one table (see Section 4.3).

2.3.4 Locally Significant Wetland Assessment

The term “significant wetlands” has meaning in the context of Statewide Planning Goal 5. Under this Goal, local governments are instructed to identify their significant resources, including wetlands, so those resources serving significant functions in the local community are given proper consideration in planning decisions. The DSL established a technical advisory committee to develop the locally significant wetlands (LSW) criteria. The DSL adopted the Administrative Rules for Identifying Significant Wetlands in January 1997 (141-86-300 through 141-86-350). The criteria rely heavily on the results of OFWAM. Only jurisdictional wetlands are assessed with the criteria.

Locally Significant Wetland Criteria:

A wetland is considered significant if it meets one or more of the following criteria:

- Wetlands that are given the highest rank for any of the four ecological functions addressed by OFWAM or equivalent methodology (see Appendix D for more details on the ranking):
 - wildlife habitat,
 - fish habitat,
 - water quality, or
 - hydrologic control.
- Wetlands that (1) are rated either in the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) border a water quality limited stream, as listed by the DEQ. Dedicated stormwater detention swales are not included.
- Wetlands that contain one or more uncommon wetland plant community, including those listed in the ONHP’s *Classification and Catalog of Native Wetland Plant Communities in Oregon* as G1-G3 and S1-S3.
- Wetlands inhabited by any species listed by the federal or state government as a sensitive, threatened, or endangered in Oregon (unless consultation with an appropriate agency deems the site not important for the maintenance of the species).
- A wetland that is a dedicated or proposed Registered Natural Area or Area of Critical Environmental Concern, State Natural Heritage Conservation Area, Federal Research Natural Area, or Land Trust.
- Wetlands specifically protected as wetland resources in a recognized federal, state, or local management plan, (e.g., for park, refuge, or scenic river).

- Wetlands that rate in the highest category for fish habitat in OFWAM and are located adjacent to a stream segment that is mapped by the Oregon Department of Fish and Wildlife (ODFW) as habitat for “indigenous anadromous salmonids.”

The final two criteria are at the discretion of the local government, but have direct connections to OFWAM results:

- *Optional Criterion* (at discretion of local government): The wetland represents a *locally* unique plant community. Wetland is or contains the only representative within the UGB of a particular native plant community (listed in the ONHP’s *Classification and Catalog of Native Wetland Plant Communities in Oregon*). To be identified as a LSW, such a wetland also must score the highest or second highest rank for any of the four ecological functions addressed by OFWAM or equivalent methodology.
- *Optional Criterion* (at discretion of local government): The wetland rates at the highest rank for education potential, and there is documented use for educational purposes by a school or organization.

The City will be required to prepare local wetland protection ordinances to apply to locally significant wetlands. Additional wetlands may be protected based on other information, such as the results of the WSIP. Any wetlands not protected by local ordinances may still be under the jurisdiction of DSL and COE.

2.4 Riparian Assessment

2.4.1 Overview of Riparian Assessment

In accordance with Goal 5, a riparian inventory and assessment was performed for limited areas within Woodburn’s UGB. Goal 5 requires local governments to inventory and protect riparian corridors. Riparian areas are zones of transition between aquatic ecosystems and terrestrial ecosystems. Goal 5 includes definitions that establish a riparian area adjacent to every river, lake, or stream, including intermittent streams with a defined channel. Human-made irrigation or drainage ditches are specifically excluded. Riparian areas can enhance water quality, reduce erosion, moderate water temperatures and flood flows, and provide important fish and wildlife habitat. Riparian areas are particularly important for anadromous salmonids, which rely on cold, clean water and the habitat created by large woody debris.

Local governments have two options that can be implemented in the protection of riparian areas. One option is to inventory and assess all riparian areas as described above, establishing the width of the riparian corridor on the basis of riparian vegetation. The inventoried sites are then analyzed to determine their significance, and ordinances are implemented to provide appropriate protection.

The other option is to implement the “safe harbors” provision. Under this plan, only riparian areas adjacent to fish-bearing water resources are included for protection, and their width is based on the average stream flow of the water resource. Local governments may use either of these options, or some combination of them, to manage their riparian resources.

The riparian inventory and assessment was conducted using the methods contained in the Riparian Guide (a copy of which is found in Appendix E). The Riparian Guide is a rapid inventory and assessment method for defining the location and quality of riparian areas. It is intended as a tool to provide consistent riparian inventory results. This document provides guidance for determining the width and length of riparian areas, and for assessing their water quality, flood management, thermal regulation, and wildlife habitat functions

2.4.2 Methodology of the Riparian Guide

The Riparian Guide includes a field inventory component, during which information is gathered on the width and other physical characteristics of the riparian areas. Riparian areas are assessed as left and right reaches facing downstream. Reaches of the riparian area are split where the character of the riparian area changes. The potential height of the dominant tree in the riparian area determines the width of the riparian areas assessed. Based on these field observations, the following functions of the riparian area are assessed: (1) Water quality, (2) Flood Management, (3) Thermal Regulation, and (4) Wildlife Habitat.

In general, a riparian area receives a higher ranking when the following criteria are met:

- average slope in the riparian area is less than 10%;
- dominant vegetation cover in the riparian area is woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high;
- dominant vegetation at the top of the bank or edge of the water resource is woody vegetation greater than 1 meter (3.2 feet) high;
- extent of impervious surface is less than 10%;
- the NRCS ranks the water erosion hazard of the dominant soil unit as low, slight, or moderate;
- aspect or orientation of the riparian area allows shading of the water resource at midday during the summer;
- flood prone areas (adjacent flat areas, depressions, swales, FEMA mapped 100-year floodplain) are present beyond the top of the bank or edge of the water resource;
- woody vegetation (trees, shrubs, vines) greater than 1 meter (3.2 feet) high are dominant in the flood prone area;
- large woody debris is present within the riparian area;
- stream or water resource is not constricted by human-made features (e.g., channelization, riprap, concrete wall, etc.);
- water resource is bordered by a vegetated riparian area at least 30 feet wide;
- more than two vegetation layers are present (e.g., canopy, mid-story, groundcover)
- woody vegetation overhangs the edge of the water;
- surface water is present throughout year;

- more than one type of water resource (stream, wetland, lake/pond) is within or immediately adjacent to the riparian reach;
- degree of development or human-caused disturbance (e.g., buildings, impervious surfaces, lawns, agriculture, trash) in the riparian area is less than 25%.

Where these factors are present or developing, the riparian area provides for water quality, flood management, thermal regulation of the water resource, and wildlife habitat.

2.5 Cartographic Products

Wetland boundaries were drawn on aerial photographs. Aerial photographs can have distortion at the edges, so digitized boundaries were adjusted. The inventory was mapped at a scale larger than the scale required in the LWI rules to allow for more clarity. However, at the map scale of 1" = 200' (1:2400), the width of a wetland boundary line is approximately 4 feet. LWI cartography conventions require accuracy of ± 25 feet in placement of the wetland boundary. Wetland field staff reviewed early draft maps and made corrections where necessary to increase the accuracy of the maps. Sample sites were identified within properties to which access was permitted. Ditches and other narrow linear features located on the edge of a property were occasionally drawn slightly to the side of the property line for graphic clarity. Each section map includes a small portion of the adjoining sections. The overlap allows for ease in viewing a wetland that may cross section boundaries. Using AutoCAD, a line was drawn paralleling the edge of the stream to show the width of the potential riparian area.

3.0 PROJECT AREA CHARACTERISTICS

3.1 Background Information

Available information and data were compiled and reviewed before field work was conducted. Soil mapping information was compiled from data available in the SCS Soil Survey of Marion County Area, Oregon. Preliminary wetland information was obtained from Woodburn and St. Paul, Oregon, NWI maps. Floodplain information was obtained from 100-year floodplain Woodburn and Marion County FEMA-FIRM maps (U.S. Dept. of Housing and Urban Development, 1979). Woodburn and St. Paul, Oregon USGS 7.5-minute topographic quadrangles, City zoning maps, and tax assessor maps also were consulted. Other source materials included: ORIS fish presence data base; DEQ 303(b) report (1998); *Classification and Catalog of Native Wetland Plant Communities in Oregon* (John Christy, 1993); and a current data search from the ONHP. This information was used to develop a preliminary indication of the location of wetlands, identify drainageways, highlight low-lying areas, facilitate on-site gathering of data, and complete the assessments.

The City of Woodburn provided a digitized base map of the study area. This map included layers for tax lot lines, street names, right-of-ways, and section boundaries. The project area base map was then plotted at a scale of 1" = 200' onto 24" x 36" sheets. Each sheet covers a section and small portions of surrounding sections, and includes an index map.

A series of color, aerial photographs dated June 6, 1998 were obtained from Bergman's Photographic Services for the study area at a scale of 1" = 200' to match the scale of the base map. These aerial photographs were covered with clear acetate (permanently registered) to protect them during field use and as a surface for drafting wetland boundaries and sample sites.

The City, with assistance from SHAPIRO, identified properties likely to contain wetlands. The owners of the identified properties were sent an access permission letter. Boundaries of properties to which access was granted were identified on the aerial photograph and base map.

3.2 Setting

The City of Woodburn is located in the Willamette Valley in Marion County, Oregon (Figure 2). The City was incorporated in 1889. The Oregon Blue Book (Levine, 1996) lists the City's population as 15,235. Historically, agriculture has provided the economic base for Woodburn.

Woodburn is approximately 10 miles northeast of Salem and 20 miles south of Portland. The primary transportation corridors are Interstate 5 on the west, Highway 99 East on the east, and Highway 214 connecting them. Woodburn is roughly equidistant from the foothills of the Cascade Range on the east and the Coast Range on the west. The Willamette River is approximately 5 miles west of Woodburn.

The boundary of the wetland inventory area corresponds with the City's UGB (Figures 1 and 2). Starting in the vicinity of Interstate 5 and Newport Way, the UGB runs eastward, with irregularities, to Highway 99 E. It follows Highway 99 E southwest to a point north of Molalla Road, where it turns east again for approximately one-quarter mile. The boundary then turns southwest and roughly parallels Highway 99 E to a point approximately one-quarter mile south of Cleveland Street, where it turns westward to Front Street. It then follows Front Street northeast a short distance, turns west and north to intersect Interstate 5, then north to cross Highway 214 east of Willow Avenue. Continuing north and then turning east at the end of Ten Oaks Avenue, the boundary returns to the starting point. The inventory area totals approximately 3,000 acres.

3.3 Topography

Woodburn's LWI area is located on a broad, generally level plain between two shallow, roughly parallel drainages. Senecal Creek drainage, on the northwest side of the inventory area, and Mill Creek drainage, on the eastern side of the inventory area, are oriented along a southwest-to-northeast axis. The elevation of the flat area between the drainages is about 180 feet (National Geodetic Vertical Datum; NGVD). The bottom of the Senecal Creek drainage is approximately 20 feet below the level of the surrounding land. Mill Creek drainage also is about 20 feet deep, putting the lowest area at approximately 160 feet NGVD. Both of these drainages are relatively broad and have gently sloping sides. The drainages themselves have a low gradient.

Shallow, wide drainage swales for East Senecal Creek in the northwestern part of the inventory area and Goose Creek near the center of the area are the only other significant topographic features.

3.4 Hydrology and Drainage Basins

Woodburn is in the Molalla-Pudding sub-basin of the Willamette River drainage basin. The inventory area contains two main drainage basins further divided into several smaller drainage basins (Figure 3). The City's stormwater management plan is organized by these two main drainages, and they form the basis of organization for the inventory.

Mill Creek (MC) is the main hydrologic feature and has the largest drainage basin in Woodburn. Mill Creek flows from southwest to northeast through the inventory area near the eastern boundary, and enters the Pudding River near Molalla 10 miles northeast of the inventory area.

Most of the Mill Creek channel has been excavated and realigned. The excavated channel is approximately 4 to 6 feet wide, 4 feet deep, and lacks significant sinuosity. Much of the creek channel was dry at the time field work for the inventory was conducted; however, northern portions of the stream contained some standing water. Mill Creek is mapped by the USGS as a perennial stream for most of its length in the inventory area.

Near the southern edge of the inventory area adjacent to a residential development, the Mill Creek channel has been excavated to form a water feature consisting of a pond with islands. The pond contained water at the time of the study. All wetlands in the Mill Creek basin are designated as MC-x.

Goose Creek is a small, realigned tributary of Mill Creek. The headwater basin of Goose Creek is a developed, single-family residential area. A stormwater conveyance system collects runoff from the development and daylight between the western end of Mayana Drive and the northwestern corner of the adjacent public school campus to the south. The creek then flows in an excavated ditch along the southern end of the Tukwila golf course, Woodburn Junior High School, and into Mill Creek southwest of the intersection of Highway 214 and Front Street. At the time of the inventory, Goose Creek had flowing water in it. It is mapped by the USGS as an intermittent stream. Wetlands in this drainage also are designated MC-x, because it is a sub-basin of the Mill Creek system.

Senecal Creek (SC) drains the northwestern part of the inventory area. The channel lacks sinuosity within the floodplain, possibly as a result of excavation or realignment of the stream. The channel is approximately 4 to 6 feet wide and 2 feet deep. At the time of the inventory, Senecal Creek had water only in small, isolated pools in the channel. The USGS mapped the portion of Senecal Creek within the inventory area as perennial. Senecal Creek flows into Mill Creek approximately 6 miles northeast of the inventory area. All wetlands in the Senecal Creek basin are designated SC-x.

East Senecal Creek drains a small part of the Senecal Creek basin. Water from East Senecal Creek fed a large wetland (SC-2C) with substantial areas of inundation and saturation at the time of the inventory. The USGS mapped the creek as intermittent within the inventory area. Wetlands in this drainage also are designated SC-x, because it is a sub-basin of the Senecal Creek system.

At the time of the inventory, significant commercial and industrial development was occurring in the Senecal Creek basin. Senecal Creek's position on the edge of the UGB makes it sensitive to activities both inside and outside the inventory area.

3.5 Soils

3.5.1 Overview

Most of the soils in the study area were formed in mixed or unsorted alluvium, silty alluvium, mixed mineral and organic material, and loess of mixed mineralogy. Alluvium is unconsolidated sediment deposited by streams. Loess is windblown silt deposit from glacial outwash. The term "mixed" means the soil particle sizes are generally unsorted.

Nine soil types are mapped within the Woodburn UGB. These soils are shown with their mapping codes in Table 1. In addition, hydric soils and soils with hydric inclusions are also indicated in the table. Mapping units are shown in Figure 4.

3.5.2 Soil Association Descriptions

There are two major soil associations mapped in the study area: the Woodburn-Amity-Willamette association (map unit 4) and the Concord-Dayton-Amity association (map unit 5).

The Woodburn-Amity-Willamette association consists of level to rolling, well-drained to somewhat poorly-drained silt loams over silty clay loams that formed in silty alluvium of mixed mineralogy. The soils are located above the bottomlands of the North Santiam, Santiam, and Willamette Rivers. The association is mapped generally in the western half of the study area. Woodburn soils make up about 60% of the association, Amity soils about 30%, and Willamette soils about 8%. The remaining percentage consists of small areas of Concord, Dayton, Wapato, and Bashaw soils. All of the soils, except the Willamette soils, have a perched water table in winter and early spring. Soils of the association are used for small grains, pasture, hay, orchards, grass seed, fruits, and vegetables, and game birds.

The Concord-Dayton-Amity association consists of nearly level, poorly-drained and somewhat poorly-drained silt loams over silty clay, clay, and silty clay-loams. The soils have formed in silty and clayey alluvium located in shallow drainageways, depressions, and level areas. The association is mapped generally in the eastern half of the study area. Concord soils make up 40% of the association, Dayton soils about 30%, Amity soils about 20%, and Holcomb soils about 5%, in addition to other minor soils. The soils of this association have a perched water table; during wet periods in winter and spring, water ponds on these soils. Soils in this unit are used for pasture, small grains, hay, grass seed, and game birds.

Table 1. Soil Types within the Woodburn UGB

Soil Type	Map Code	Hydric*	Drainage Class	Erosion Hazard
Amity silt loam	Am	No ¹	Somewhat poorly drained	None or slight
Bashaw clay	Ba	Yes	Poorly-drained	Slight
Concord silt loam	Co	Yes	Poorly-drained	Slight
Dayton silt loam	Da	Yes	Poorly-drained	Slight
Labish silty clay loam	La	Yes	Poorly-drained	None or slight
Terrace escarpments	Te	No	Not listed	Not listed
Woodburn silt loam, 0 to 3% slopes	WuA	No ¹	Moderately well-drained	Slight to moderate
Woodburn silt loam, 3 to 12% slopes	WuC	No	Moderately well-drained	Moderate
Woodburn silt loam, 12 to 20% slopes	WuD	No	Moderately well-drained	Moderate

*Notes: ¹ may have inclusions of hydric soils

Sources: USDA SCS, 1972 (Soil Survey of Marion County, Oregon)
 USDA SCS, 1989 (Hydric Soils of Oregon by County)

3.5.3 Hydric Soil Descriptions

Bashaw clay (Ba) consists of poorly-drained and very poorly-drained soils that have formed in alluvium. These soils are found in backwater areas of the floodplains and in drainage channels of silty alluvial terraces. In a typical profile, the surface layer is very dark gray (10YR 3/1) clay in the upper 3 inches and black (N2/0) clay to 31 inches thick. The upper part of the subsoil extends to about 48 inches deep and is very dark gray (N3/0) clay. The soil is classified as very fine, montmorillonitic, mesic Typic Pelloxererts. Permeability is very slow.

Concord silt loam (Co) consists of poorly-drained soils that have formed in alluvium of mixed mineralogy. These soils are on broad valley terraces, in slightly concave depressions, and in drainageways. The surface layer is typically very dark grayish brown (10YR 3/2) silt loam about 6 inches thick. The subsurface is dark gray silt loam and heavy silt loam (10YR 4/1) about 3 inches thick. The subsoil is dark gray (10YR 4/1) heavy silt loam, and gray (10YR 5/1) and dark gray (10YR 4/1) light silty clay about 10 inches thick. The soil is classified as fine, montmorillonitic, mesic Typic Ochraqualfs. Permeability is slow.

Dayton silt loam (Da) consists of poorly-drained soils that have formed in old, mixed alluvium, with possible influence from loess deposition. The soils are found on terraces, where they occupy areas in drainageways and depressions. In a typical profile, the surface layer is very dark grayish brown (10YR 3/2) silt loam about 7 inches thick. The subsurface layer is dark gray (10YR 4/1) silt loam about 6 inches thick. The subsoil is about 33 inches thick consisting of dark gray (10YR 4/1) and grayish brown (10YR 5/2) clay. The soil is classified as fine, montmorillonitic, mesic Typic Albaqualfs. Permeability is very slow.

Labish silty clay loam (La) is a poorly-drained soil formed in mixed mineral and organic material on the bottoms of former shallow lakes. Typically, the surface layer is black (10YR 2/1) silty clay loam about 7 inches thick. The subsurface layer is very dark brown (10YR 2/2) silty clay about 9 inches thick. The subsoil layer is very dark gray (N3/0) clay extending to 60 inches or more. The soil is classified as fine, montmorillonitic, acid, mesic Cumulic Humaquepts. Permeability is slow.

3.6 Vegetation

3.6.1 Historical Overview

Woodburn is located in the Willamette Valley unit of the Interior Valley zone of Western Oregon (Franklin and Dyrness, 1973). This zone is the warmest and driest region west of the Cascade Range because of its position in the rain shadow of the Coast Range. The Willamette Valley has been occupied by Euroamericans since the early 19th century. Since that time the natural vegetation has been subject to extensive modification. Before the early 19th century, Native Americans controlled vegetation on extensive areas of the Willamette Valley by seasonal burning (Johannessen, 1971).

According to Franklin and Dyrness, four major vegetation communities probably existed in the Woodburn area before the City was founded: oak woodland, coniferous forest, grassland, and riparian communities. Remnants of these community types still exist in the inventory area. An important subset of the riparian community type is wetland vegetation. While not addressed specifically by Franklin and Dyrness, it is included below because of its significance in the present work.

3.6.2 Vegetation Communities

Oak Woodland

Oak woodland is dominated by Oregon white oak (*Quercus garryana*). Other tree species sometimes present are Douglas-fir (*Pseudotsuga menziesii*) and bigleaf maple (*Acer macrophyllum*). A typical example of remnant oak woodland in Woodburn is on the upland riparian areas along parts of Senecal Creek.

Coniferous Forest

Douglas-fir is the dominant tree in the coniferous forest community. Grand fir (*Abies grandis*) and bigleaf maple are common minor constituents of this community. The fir grove in Senecal Creek Park is similar to this community type.

Grassland

Franklin and Dyrness published figures from Johannessen showing that grasslands were probably the main vegetation community on the broad plain between Senecal Creek and Mill Creek. However, they also note that all grasslands in the Willamette Valley most likely have been modified by human activities. Presently, the closest approximation to a grassland community in the inventory area are pasture land, mowed fields, and open areas that support predominantly herbaceous vegetation.

Riparian

Black cottonwood (*Populus balsamifera*) and Oregon ash (*Fraxinus latifolia*) dominated riparian communities. Various willow (*Salix*) species were common in this association. Riparian woodlands are still found in Woodburn. The bottomland in Senecal Creek Park supports an ash forest.

Wetland

Vegetation in Woodburn's wetlands is diverse, varying from grasses and other herbaceous plants to trees. Wetlands dominated by grasses and other herbaceous plants are classified as Palustrine Emergent (PEM). Nearly all the wetlands in Woodburn are PEM. A common grass in unmaintained sites is reed canarygrass (*Phalaris arundinacea*), which is found in and along

many of the stream channels and drainage ditches. Broadleaf cattail (*Typha latifolia*) is also found in these areas, if the duration of wet conditions is long enough. These two species are common in wetland areas of the Mill Creek basin.

Wetlands dominated by woody species less than 30 feet high are classified as Palustrine Scrub/Shrub (PSS). A site dominated by woody species over 30 feet high is classed as Palustrine Forested (PFO). In Woodburn, the scrub/shrub and forest species are often found growing intermingled. Major scrub/shrub species include clustered wild rose (*Rosa pisocarpa*), Scouler willow (*Salix scouleriana*), Sitka willow (*S. sitchensis*), Douglas' hawthorn (*Crataegus douglasii*), and red-osier dogwood (*Cornus stolonifera*). Wetland trees are limited to Oregon ash, black cottonwood, and red alder (*Alnus rubra*).

4.0 WETLAND FINDINGS

4.1 Wetland Classification and Location

4.1.1 Wetland Types and Classification

The USFWS mapped wetlands in the study area as part of the NWI program (Figure 5). The NWI maps are generated primarily on the basis of interpretation of small-scale (1" = 4,833' [1:58000]), color infrared, aerial photographs. Limited ground reconnaissance was conducted to confirm the interpretations. Cowardin classifications of wetlands identified by the NWI in Woodburn are found in Table 2. The LWI conducted by SHAPIRO identified many wetlands within the Woodburn UGB that were not mapped by the NWI.

Palustrine emergent (PEM) wetlands comprise the majority of wetlands mapped in the inventory. All the wetlands along the main stem of Mill and Goose Creeks are PEM. The northern half of wetlands in East Senecal Creek are also PEM. In addition, all the wetlands not directly associated with the main stem drainages are PEM, except the water hazards on the Tukwila golf course and four other isolated sites.

Reed canarygrass is the dominant plant in the main stem drainage PEM wetlands. It is mowed to reduce fire hazard, but is still able to compete successfully with other plant species, preventing them from forming large populations.

With the exception of the golf course water hazards and four other sites noted above, wetlands not directly associated with the main stem drainages are in agricultural fields. These wetlands vary from mostly bare soil surface to a variety of agricultural species and invasive vegetation common to disturbed sites.

Palustrine forested (PFO) wetlands were mapped on Senecal Creek and the southern half of East Senecal Creek. The dominant tree is Oregon ash, with a few specimens of black cottonwood. The understory includes clustered wild rose, red-osier dogwood, and willow species. Herbaceous vegetation under the canopy is dominated by reed canarygrass.

Table 2. U.S. Fish and Wildlife Service Wetland Classes Mapped by the National Wetlands Inventory within the Woodburn UGB

Code	Cowardin Classification of NWI Mapped Wetlands within the Woodburn UGB
PEM1Y	palustrine, emergent, persistent, saturated/semipermanent/seasonal
PEM1Yx	palustrine, emergent, persistent, saturated/semipermanent/seasonal, excavated
PFO1W	palustrine, forested, broad-leaved deciduous, intermittently/flooded/temporary
PFO1Y	palustrine, forested, broad-leaved deciduous, saturated/semipermanent
POWKZh	palustrine, open water, artificially flooded, intermittently exposed/permanent, diked/impounded
POWKZx	palustrine, open water, artificially flooded, intermittently exposed/permanent, excavated
POWZ	palustrine, open water, intermittently exposed/permanent

Some wetlands in the Mill Creek basin are also PFO. The wetland that extends west onto Tukwila golf course from Mill Creek is partly PFO, with Oregon ash, red alder, black cottonwood, and willow trees. North of the confluence of this wetland and the wetland on the main stem of Mill Creek is a stand of large, black cottonwoods. This is the largest PFO wetland remaining in the Mill Creek bottomlands.

Two isolated wetlands also were classified as PFO. One is a linear stand of black cottonwood trees on the western side of the Southern Pacific Railroad tracks, just south of the intersection of the railroad and Settlemier Street. A second cottonwood stand is located on the western side of the drive-in theatre, southeast of the intersection of Hood Avenue and Highway 99 E.

Palustrine scrub/shrub (PSS) wetlands are found in several places in the inventory area. Scattered, small pockets of PSS wetlands are found along Mill Creek and in the wetland that extends from Mill Creek onto the golf course. Two isolated wetlands also were classified as PSS. At the northern end of Progress Way, water in a drainage ditch supports a PSS wetland dominated by willow species. This wetland extends northeast to the edge of the inventory area. The second isolated PSS wetland is on the future site of Centennial Park. This wetland is in an excavated area in a large, unused field. The combination of hydric soil and excavation apparently produces saturation or possibly shallow ponding in the excavation early in the growing season. Black cottonwood saplings are the dominant wetland vegetation on the site.

Open water wetlands (POW) are uncommon in Woodburn. A water feature consisting of the excavated floodplain of Mill Creek, which ponds approximately 1 acre of water, is the main open water feature in Woodburn's wetland system. This pond is mapped as part of wetland MC-1. The pond includes two small islands. Shoreline vegetation is predominantly reed canarygrass and Himalayan blackberry (*Rubus discolor*). At the time of the inventory, the surface of the pond had been reduced by evaporation and percolation to expose the pond bottom around the edges. Turbidity was high, possibly from algal growth and suspended sediments resulting from feeding activities of resident waterfowl observed on the pond.

Tukwila golf course has seven water hazards that were mapped on the inventory. The water level in the ponds is maintained by precipitation and surface runoff during wet periods. In the summer, water is added to the ponds by pumping water into them from the course's irrigation system. These water hazards are mostly unvegetated. Three of the water hazards were excavated in non-hydric soil, and therefore probably would not be considered jurisdictional wetlands.

Three stormwater detention facilities were mapped during the inventory. These facilities ameliorate runoff from impervious surfaces and remove sediments, petroleum products, and other deleterious materials that may be found in storm runoff from developed sites. These facilities also were constructed in non-hydric soil, and therefore probably would not be considered jurisdictional wetlands.

4.1.2 Location of the Wetlands

Figure 6 shows the location of individual wetlands, wetland complexes, and water bodies mapped in the inventory. Table 3 lists each wetland, its area, and its wetland classification. The 31 water resources listed in Table 3 total 99.88 acres. Seven of these wetlands totaling 72.13 acres, or 72 percent of the total, are adjacent to, or part of, wetland complexes associated with Mill Creek, Senecal Creek, or East Senecal Creek. The remaining features are isolated.

Of the total acres, 60.72 acres, or 61% are in the Mill Creek drainage basin. Wetlands directly associated with the main stem of Mill Creek were mapped in seven separate wetland complexes, some of which are composed of several smaller sub-units. Thirteen wetlands were mapped in the Mill Creek drainage that are not on the main stem of the creek. Seven ponds (water hazards) were mapped on the Tukwila golf course. One (wetland 8J) was mapped as part of wetland 8 because it was excavated in hydric soil and is hydrologically connected to wetland 8. Three stormwater detention facilities were mapped in this drainage basin.

Wetlands mapped in the Senecal Creek basin totaled 39.16 acres, or 39% of the wetlands mapped in the inventory. Wetlands directly associated with the main stem of Senecal Creek were mapped as one unit, totaling 23.02 acres, or 23% of the total mapped wetlands. Wetlands directly associated with the main stem of East Senecal Creek were mapped as one complex, with three sub-units. Total acreage of this complex is 12.81 acres, or 13% of the total. One wetland was mapped in the Senecal Creek basin that was not directly associated with either of the creeks.

4.2 Oregon Freshwater Wetland Assessment Methodology Results

Results of the OFWAM are summarized in Table 4. This table is useful primarily for obtaining an overview of the current and potential functional status of each wetland. The functional level of each assessed characteristic is shown for each wetland. These functional levels are derived directly from the assessment summary forms. Detailed responses used to generate the summary results are available on the data forms for each wetland, which are provided in Appendix B. This more detailed information (individual OFWAM data sheets) should be consulted before making decisions regarding any wetland.

4.3 Locally Significant Wetlands

Ten individual wetland sites or wetland complexes were determined to be locally significant based on the OFWAM analysis of significance (Table 5). Nine of these significant wetlands are along the main stem of Mill, Senecal, East Senecal, or Goose Creeks. These wetlands include the entire length of these streams within the inventory area. The tenth wetland is a short length of a minor drainage that flows directly into Mill Creek.

All the significant wetlands were given the highest rank for hydrologic control. This indicates that they serve important hydrologic control functions because of their location in developed areas and their ability to absorb floodwaters within floodplains.

Table 3. Woodburn Wetlands, Wetland Area, and USFWS Wetland Classification*

Wetland Code	Drainage Basin	USFWS Wetland Classification				Total Acreage
		PEM	PFO	PSS	POW	
MC-1	Mill Creek	7.44	0	0	1.31	8.75
MC-2	Mill Creek	1.64	0	0	0	1.64
MC-3	Mill Creek	3.72	0	0	0	3.72
MC-4	Mill Creek	0.19	0	0	0	0.19
MC-5	Mill Creek	4.88	0	1.45	0	6.33
MC-6	Mill Creek	1.24	0	0	0	1.24
MC-7	Mill Creek	2.15	0	0	0	2.15
MC-8	Mill Creek	14.70	1.05	0.50	1.16	15.86
MC-9	Mill Creek	0	0.35	0	0	0.35
MC-10	Mill Creek	0.29	0	0	0	0.29
MC-11	Mill Creek	2.06	0	0	0	2.06
MC-12	Mill Creek	0.58	0	0.17	0	0.75
MC-13	Mill Creek	0.43	0	0	0	0.43
MC-14	Mill Creek	0.06	0	0	0	0.06
MC-15	Mill Creek	2.0	0	0	0	2.0
MC-16	Mill Creek	0.96	0	0	0	0.96
MC-17	Mill Creek	0.99	0	0	0	0.99
MC-18	Mill Creek	0.19	0	0	0	0.19
MC-19	Mill Creek	2.07	0	1.89	0	3.96
MC-20	Mill Creek	0	1.61	0	0	1.61
MC-21	Mill Creek	0	0	0	0.16	0.16
MC-22	Mill Creek	0	0	0	0.54	0.54
MC-23	Mill Creek	0	0	0	0.84	0.84
MC-24	Mill Creek	1.41	0	0	0	1.41
MC-25	Mill Creek	0	0	0	0.92	0.92
MC-26	Mill Creek	0	0	0	1.07	1.07
MC-27	Mill Creek	0	0	0	0.07	0.07
MC-28	Mill Creek	0	0	0	0.18	0.18
SC-1	Senecal Cr.	0	11.51	11.51	0	23.02
SC-2	Senecal Cr.	6.06	0	6.75	0	12.81
SC-3	Senecal Cr.	0	0	3.33	0	3.33
	TOTALS	53.06	14.52	25.6	6.70	99.88

* Wetland type according to the wetland classification system developed by Cowardin, et al. ("Classification of Wetlands and Deepwater Habitats of the United States"; 1979) and used by the USFWS - NWI. ().
 PEM=Palustrine emergent, PFO=palustrine forested, PSS= palustrine shrub/scrub, POW=Palustrine open water.

Table 5. Significant Wetlands and Wetlands of Special Interest for Protection

Wetland Code	Results of Local Wetland Significance Assessment	Results of Wetlands of Special Interest for Protection Assessment
MC-1	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. • Wetland is rated in either the highest or second highest category for water quality AND borders a water quality limited stream as listed by DEQ. 	
	<ul style="list-style-type: none"> • 	
MC-2	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. • Wetland is rated in either the highest or second highest category for water quality AND borders a water quality limited stream as listed by DEQ. 	
MC-3	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. • Wetland is rated in either the highest or second highest category for water quality AND borders a water quality limited stream as listed by DEQ. 	
MC-5	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-6	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-7	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	
MC-8	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control, AND borders a water quality limited stream as listed by DEQ. 	
MC-16	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality and hydrologic control. 	
SC-1	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	
SC-2	<ul style="list-style-type: none"> • Wetland scores the highest rank for hydrologic control. 	Factory Outlet Store Mitigation
SC-3	<ul style="list-style-type: none"> • Wetland scores the highest rank for water quality. 	

Seven of the eight wetlands in the Mill Creek drainage were significant also because they scored in the highest or second highest category for water quality, and they are along a water quality limited stream. This finding of significance indicates that these wetlands continue to play a significant role in maintaining water quality in Mill Creek.

5.0 RIPARIAN FINDINGS

The riparian inventory and assessment was conducted on Senecal and East Senecal Creeks using the procedures in the Riparian Guide. The riparian areas on each side of the creeks were segmented into reaches based on various characteristics, such as the type of development (or lack thereof) adjacent to the stream and the type of vegetation dominating the area. Each segment or riparian reach was coded to identify the side of the stream (looking downstream: right side [R] and left side [L]) and its sequential number, with number 1 being the furthest upstream.

The riparian corridor on Senecal Creek was divided into five reaches, two on the left (western) side of the creek and three on the right (eastern) side. The length of East Senecal Creek within the inventory area was assessed with one riparian reach on each side of the stream.

The width of each riparian area was determined by the potential height of the dominant tree species growing in it. Two tree species dominated portions of the riparian areas. Douglas-fir dominated the riparian areas on Senecal Creek. Its potential tree height (PTH) is 120 feet, resulting in a riparian area width determination of 120 feet. Oregon white oak was determined to be the dominant tree species in the riparian areas bordering East Senecal Creek. The PTH of Oregon white oak is 60 feet, resulting in a riparian area width determination of 60 feet.

The actual widths of existing riparian areas, with a vegetated buffer that was not disturbed, varied from nonexistent to 120 feet. These widths are reported for informational purposes to assist in writing ordinances addressing riparian buffers. The vegetated riparian buffer is generally absent on the part of Senecal Creek north of Senecal Creek Drive and on the eastern side of East Senecal Creek. By contrast, the riparian area on the eastern side of Senecal Creek, in Senecal Creek Park, is largely intact and extends the full width of the riparian area as determined by the PTH. This broad variation in the width and quality of the riparian areas (summarized in Table 6) is not surprising because of the extensive historical alteration of the stream corridors.

Riparian areas along Mill Creek are generally vegetated by reed canarygrass. The vigorous, dense growth of this invasive species, combined with mowing, may prevent shrubs and trees from becoming established.

6.0 SUMMARY

Woodburn's Goal 5 wetland resource inventory has been completed in compliance with guidance from the DSL, which governs LWIs. The resulting maps are more complete and of greater resolution and accuracy than the NWI maps that were used previously by the City to determine

Table 6. Woodburn Urban Riparian Inventory and Assessment Summary

Reach Code	Potential Tree Height (ft)	Actual Riparian Width (ft)	Length Of Reach (ft)	Water Quality Function	Flood Management Function	Thermal Regulation Function	Wildlife Habitat Function
ECL-1	60	35	600	HIGH	HIGH	MED	HIGH
ECR-2	60	60	2600	MED	LOW	LOW	HIGH
SCL-1	120	100	2120	HIGH	LOW	LOW	MED
SCL-2	120	20	1320	MED	LOW	MED	LOW
SCR-1	120	40	2060	HIGH	MED	MED	HIGH
SCR-2	120	120	950	HIGH	MED	MED	HIGH
SCR-3	120	20	880	MED	LOW	MED	HIGH

the location of possible wetlands. The inventory is a tool that can be used by the City to make informed planning decisions.

Thirty-one individual wetlands, wetland systems, and water bodies totaling 99.88 acres, were identified by the LWI. The largest single mapped wetland complex is 23.02 acres. The most common wetland classification type in the inventory area is PEM (53.06 acres). Most of these wetlands are directly associated with the main drainages in Woodburn. These wetlands are vegetated by grasses and other non-woody, low-growing plants. Many of these wetlands may experience some degree of inundation during the winter and early part of the growing season.

Palustrine forested wetlands comprise the second largest category of mapped wetlands. Most of these forested wetlands are in the Senecal Creek and East Senecal Creek bottomlands. Small amounts of PFO wetland also remain in the Mill Creek drainage as isolated stands of trees.

Ten wetlands were determined to be locally significant. These significant wetlands include all of the wetlands along Mill, Senecal, East Senecal, and Goose Creeks. Each of these wetlands is significant because of its hydrologic control functions in the drainage basin. In addition to hydrologic control, nine of the significant wetlands are significant because of their water quality functions. Under Goal 5 rules, locally significant wetlands in Woodburn will need to be protected by local ordinances.

Assessment of the riparian corridor along Senecal Creek and East Senecal Creek resulted in a determination of 7 riparian reaches, the longest being approximately 2,600 feet long. The width of each reach was determined by existing vegetation, and varied from 60 to 120 feet. In some reaches, actual riparian vegetation and function were almost completely gone. In other reaches, significant vegetation, natural value, and function remain.

Most of the wetlands and riparian areas within Woodburn's UGB have been affected significantly by development, whether residential, commercial, industrial, or agricultural. Each of the wetlands and riparian areas within the study area still serves important functions associated with fish and wildlife habitat, water quality, hydrologic control, and quality of life.

7.0 REFERENCES

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U.S. Geological Survey. 1956. Woodburn, Oregon, 7.5-minute quadrangle topographic map, photorevised 1970, and St. Paul, Oregon 7.5-minute quadrangle topographic map, photorevised 1985.

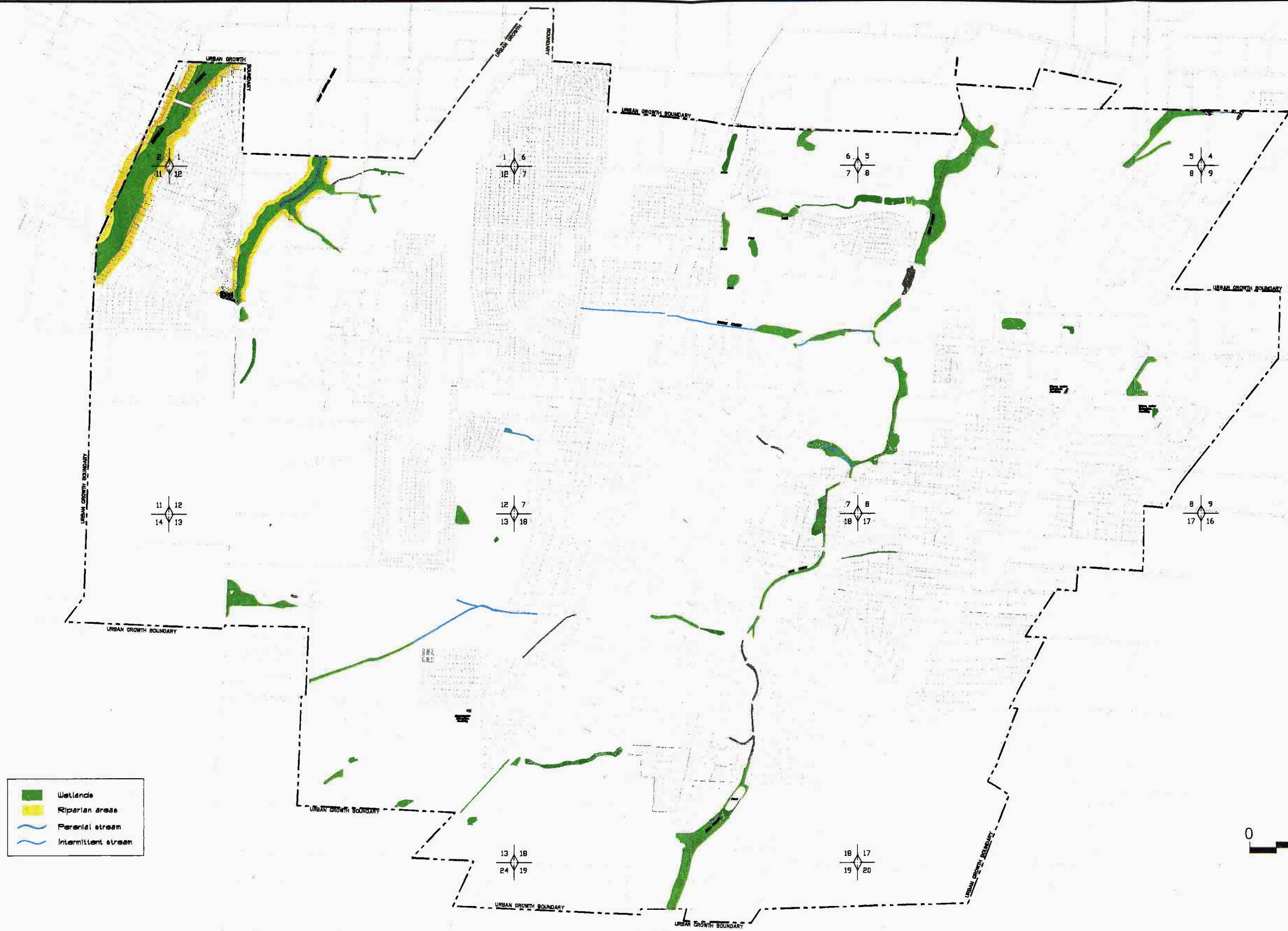
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Table 4. Summary of Oregon Freshwater Wetland Assessment Methodology (OFWAM) Results for City of Woodburn

Wetland Code	OFWAM Assessment Elements: Functions (F) and Conditions (C)									
	Wildlife Habitat (F)	Fish Habitat Streams (F)	Fish Habitat Lakes/Ponds (F)	Water Quality (F)	Hydrologic Control (F)	Education (F)	Recreation (F)	Enhancement Potential (C)	Aesthetic Quality (C)	Impact Sensitivity (C)
MC-01	Provides Limited	Impacted	N/A	Intact	Intact	Can Provide	Can Provide	High	Moderately Pleasing	High
MC-02	Provides Limited	Impacted	N/A	Impacted	Intact	Potential	Inappropriate	Low	Moderately Pleasing	Moderate
MC-03	Provides Limited	N/A	N/A	Impacted	Intact	Inappropriate	Inappropriate	Low	Moderately Pleasing	Moderate
MC-04	Provides Limited	Not Present	N/A	Intact	Intact	Potential	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-05	Provides Limited	Not Present	N/A	Intact	Intact	Potential	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-06	Provides Limited	N/A	N/A	Intact	Impacted	Can Provide	Potential	Moderate	Moderately Pleasing	Moderate
MC-07	Provides Limited	Impacted	Impacted	Impacted	Intact	Potential	Potential	Moderate	Moderately Pleasing	Moderate
MC-08 a-j	Provides Limited	Impacted	Impacted	Intact	Intact	Can Provide	Potential	Moderate	Moderately Pleasing	Moderate
MC-09	Provides Limited	N/A	N/A	Intact	Impacted	Potential	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-10	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Low	Moderately Pleasing	Moderate
MC-11	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Low	Moderately Pleasing	Moderate
MC-12	Provides Limited	N/A	N/A	Intact	Intact	Potential	Inappropriate	Low	Moderately Pleasing	Moderate
MC-13	Provides Limited	N/A	N/A	Impacted	Impacted	Potential	Inappropriate	Low	Moderately Pleasing	Moderate
MC-15	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-16	Provides Limited	N/A	N/A	Intact	Intact	Potential	Inappropriate	Low	Moderately Pleasing	Moderate
MC-17	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Low	Moderately Pleasing	Moderate
MC-18	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-19	Provides Limited	Impacted	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Low	Moderately Pleasing	High
MC-20	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Moderate	Moderately Pleasing	Moderate
MC-24 a,b	Provides Limited	N/A	N/A	Impacted	Impacted	Potential	Inappropriate	Low	Not Pleasing	Moderate
MC21-23,25,26	Provides Limited	N/A	Impacted	Impacted	Intact	Potential	Potential	Low	Moderately Pleasing	Moderate

Note: N/A = Not applicable for this wetland



- Wetlands
- Riparian areas
- Perennial stream
- Intermittent stream



Base map from City of Woodburn, 1998

2981036 1/5/00

Wetlands, riparian areas, and intermittent drainages identified by the Local Wetlands Inventory of the area within the City of Woodburn's Urban Growth Boundary.

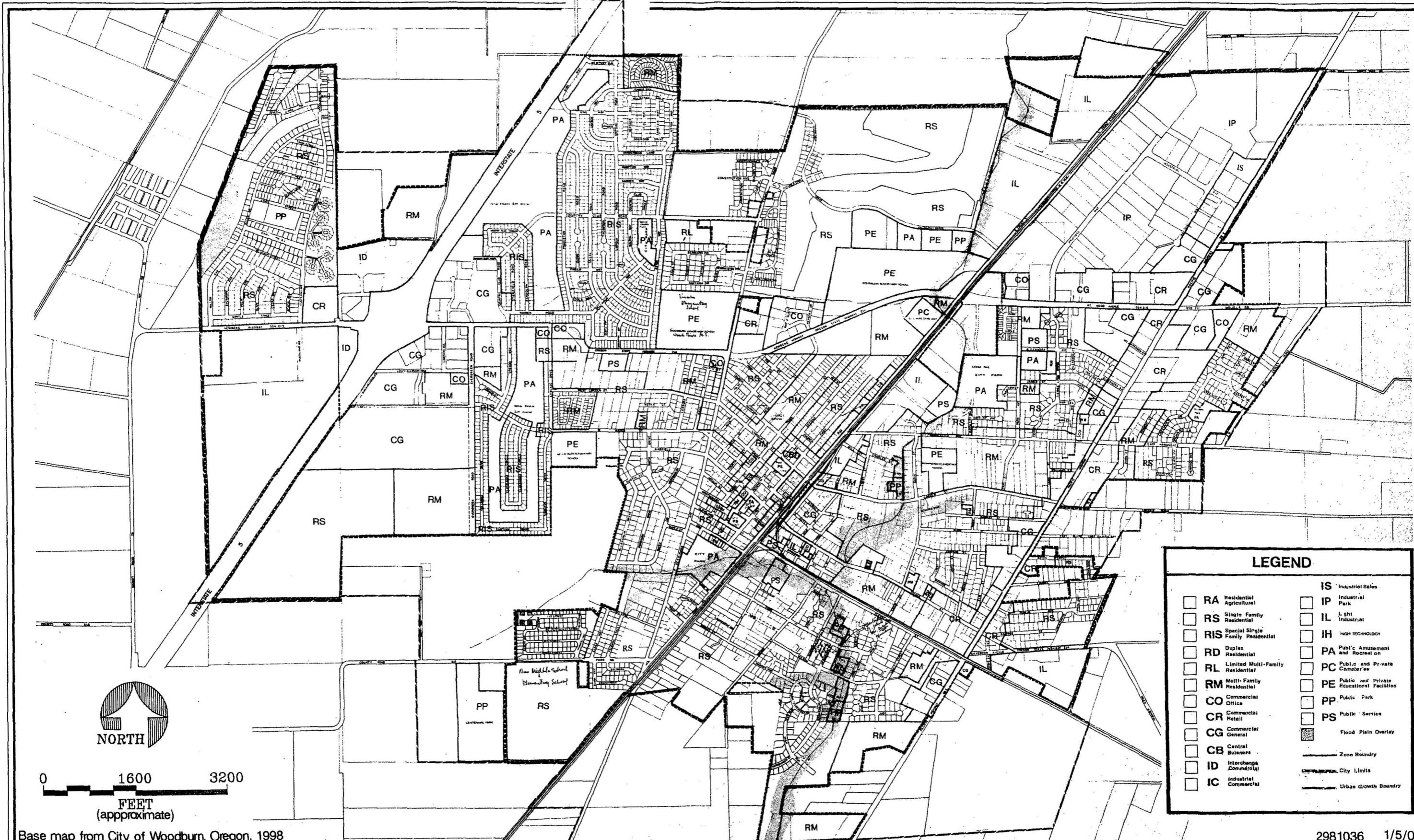
FIGURE
6



Table 4. Summary of Oregon Freshwater Wetland Assessment Methodology (OFWAM) Results for City of Woodburn

Wetland Code	OFWAM Assessment Elements: Functions (F) and Conditions (C)									
	Wildlife Habitat (F)	Fish Habitat Streams (F)	Fish Habitat Lakes/Ponds (F)	Water Quality (F)	Hydrologic Control (F)	Education (F)	Recreation (F)	Enhancement Potential (C)	Aesthetic Quality (C)	Impact Sensitivity (C)
SC-01	Provides Limited	Impacted	N/A	Intact	Intact	Can Provide	Potential	Moderate	Moderately Pleasing	Moderate
SC-02 a-d	Provides Limited	Impacted	N/A	Impacted	Intact	Potential	Potential	Moderate	Moderately Pleasing	Moderate
SC-03	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Moderate	Moderately Pleasing	Moderate

Note: N/A = Not applicable for this wetland

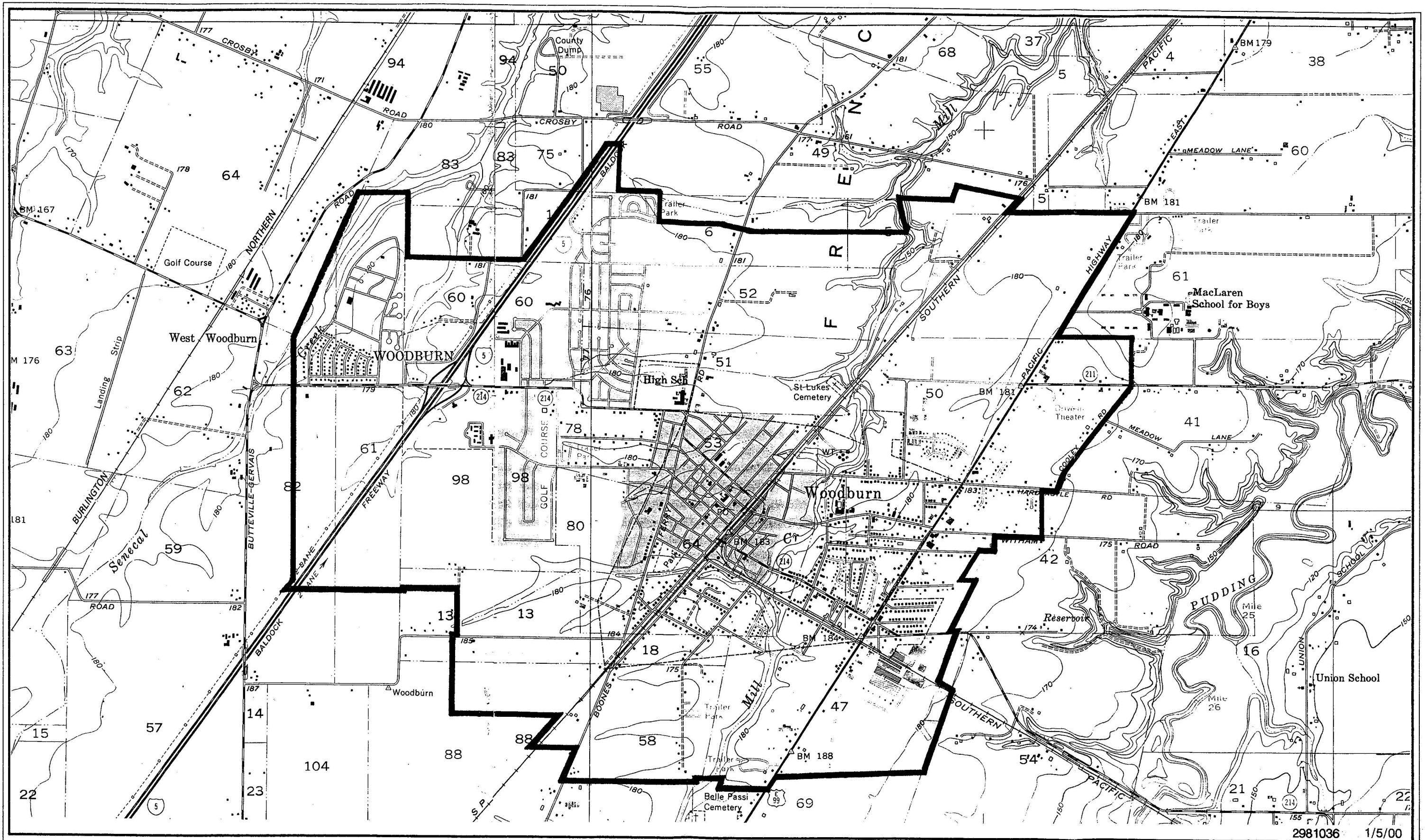


Base map from City of Woodburn, Oregon, 1998

2981036 1/5/00

Urban Growth Boundary and zoning of the City of Woodburn, Oregon.

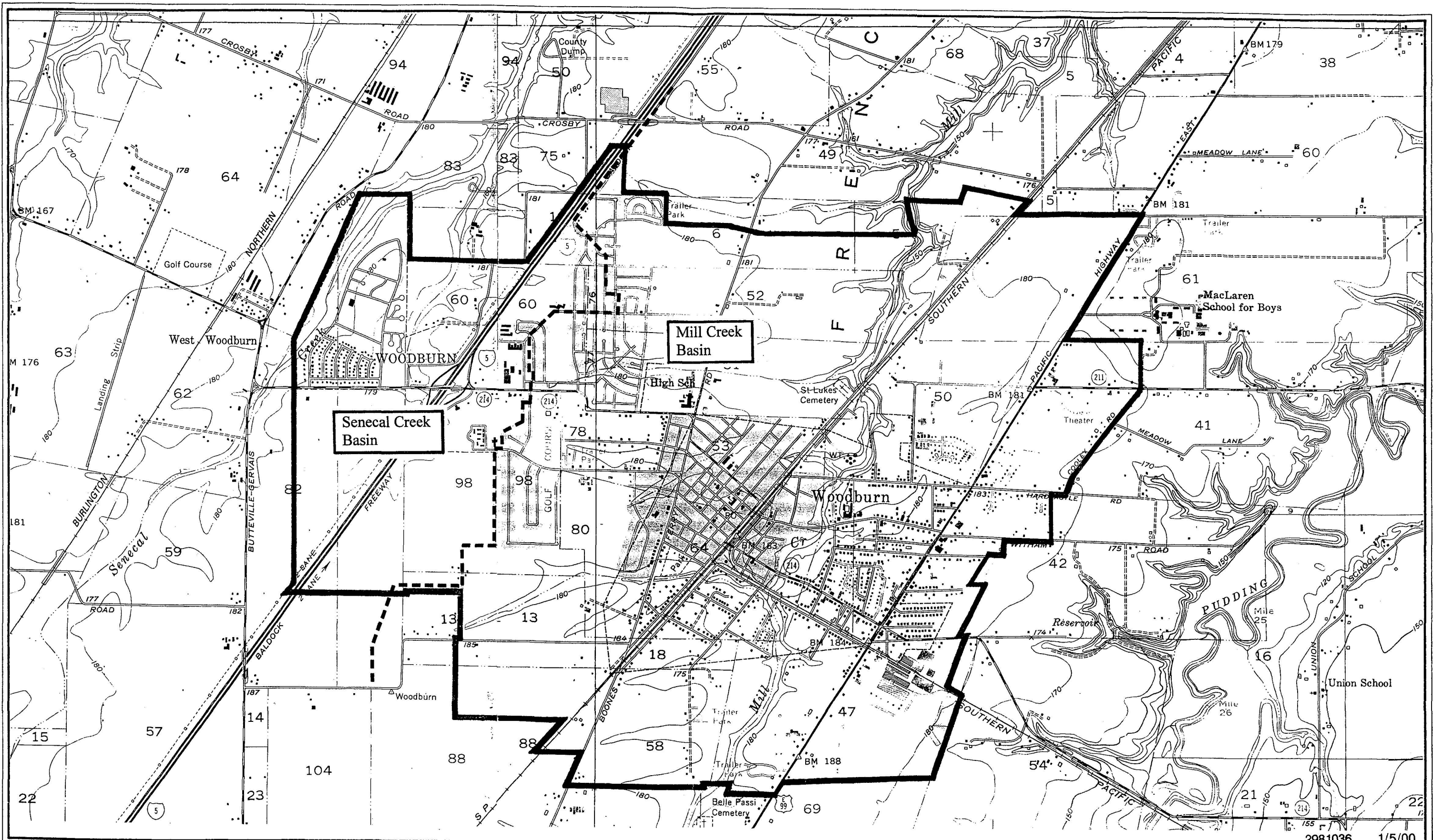
FIGURE 1



2981036 1/5/00

Location and generalized topography of the City of Woodburn Local Wetlands Inventory study area, Oregon (U.S.G.S. 7.5-minute quadrangles, 1:24000, Woodburn 1956 photorevised 1970, and St. Paul 1956 photorevised 1985).

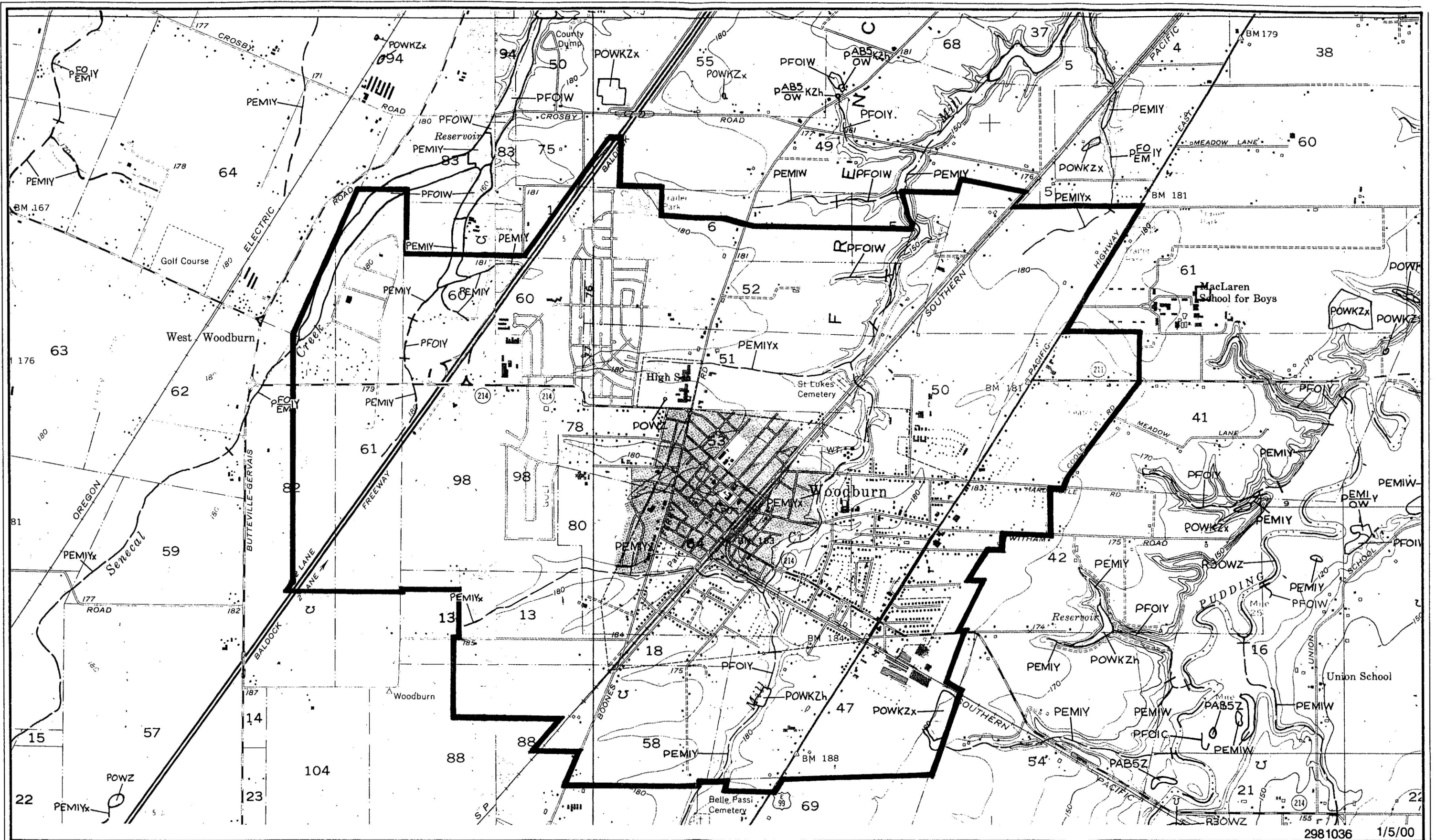
FIGURE
2



Basins within the City of Woodburn Local Wetlands Inventory study area, Oregon.

2981036 1/5/00

FIGURE 3

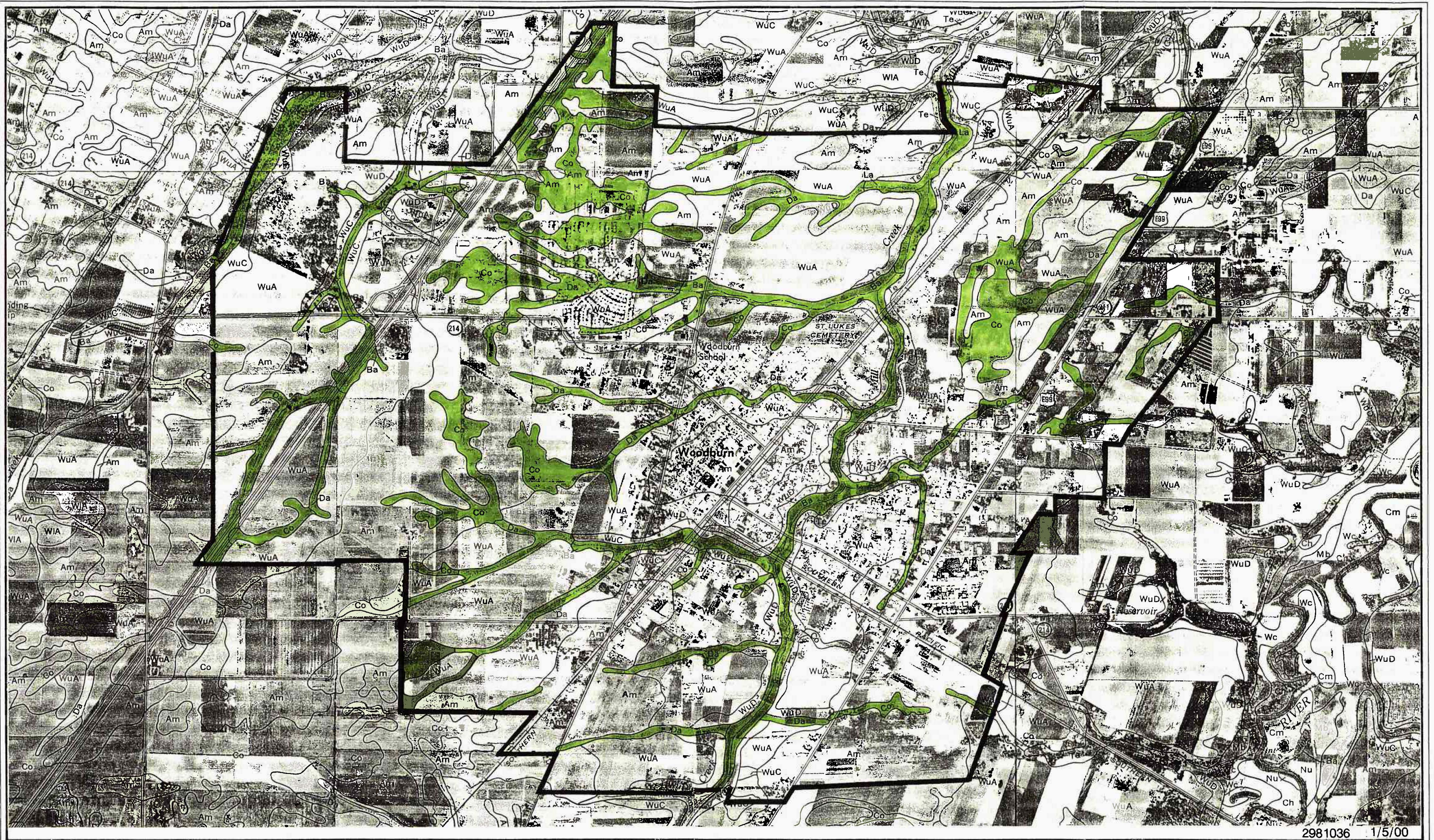


2981036 1/5/00

National Wetland Inventory designations of the City of Woodburn Local Wetlands Inventory study area, Oregon (U.S. Fish and Wildlife Service, Woodburn and St. Paul, Oregon, 7.5-minute quadrangles, 1:24000, based on 1981 color infrared photography).

FIGURE

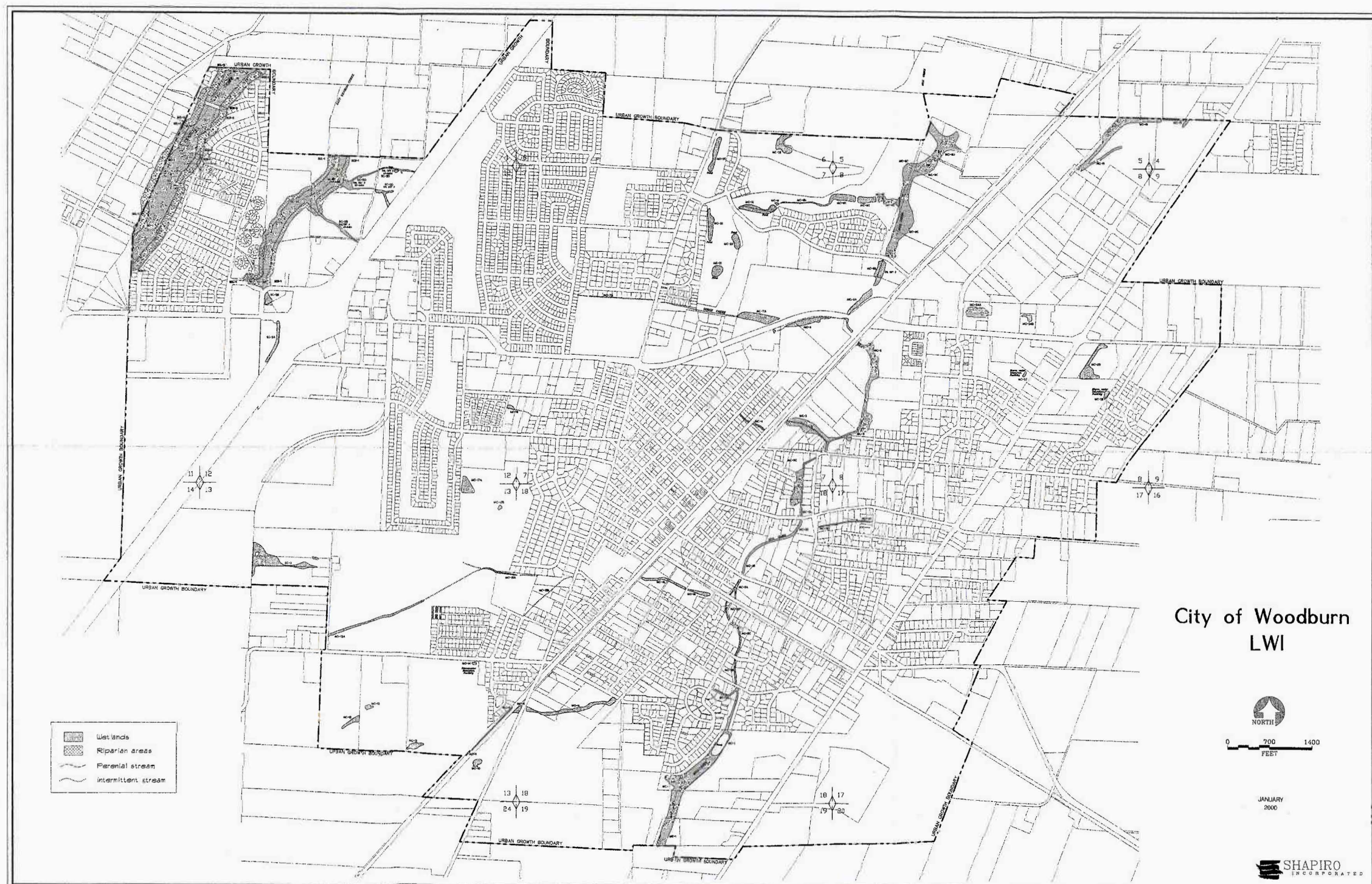
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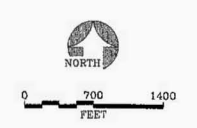
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FIGURE
4

Soil mapping units with hydric soils within the City of Woodburn Local Wetlands Inventory study area, Oregon (Soil Conservation Service, *Soil Survey of Marion County, Oregon*, 1:20000, 1972.)



City of Woodburn
LWI

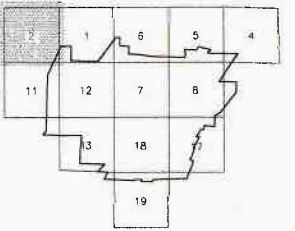


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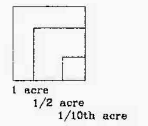
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CITY OF WOODBURN
LOCAL
WETLAND INVENTORY



- Wetlands
- SC-2B** Wetland label
- Riparian areas
- SC-L-1** Riparian label
- Sample site
- Wetlands (DSL DET)
- DSL DET #**
97-0453 DSL DET #
- Perennial stream
- Wetland channel
- On site mapping

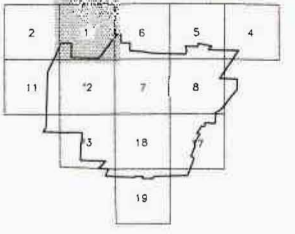


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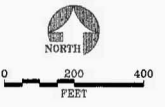
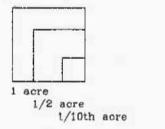
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City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071

CITY OF WOODBURN
LOCAL
WETLAND INVENTORY



- Wetlands
- SC-2B Wetland label
- Riparian areas
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- Sample site
- Wetlands (DSL DET)
- DSL DET #
- Perennial stream
- Wetland channel
- On site mapping



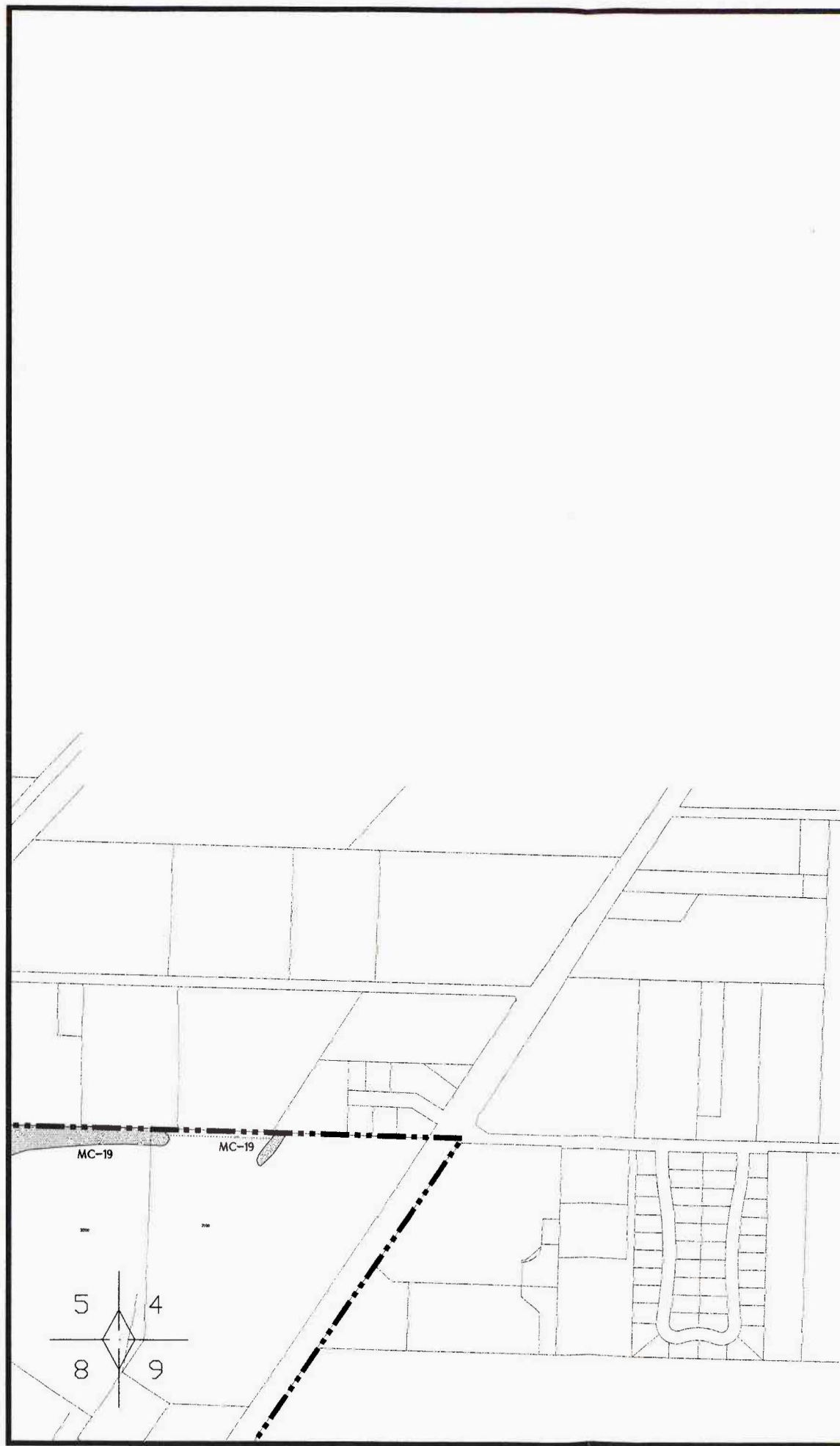
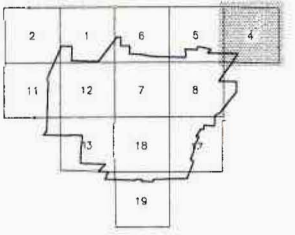
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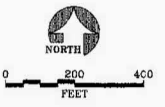
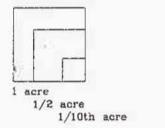
City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071



CITY OF WOODBURN
LOCAL
WETLAND INVENTORY



- Wetlands
- SC-2B** Wetland label
- Riparian areas
- SC-L-1** Riparian label
- Sample site
- Wetlands (DSL DET)
- DSL DET #** DSL DET #
- Perennial stream
- Wetland channel
- On site mapping



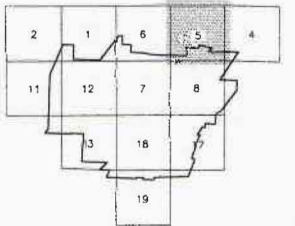
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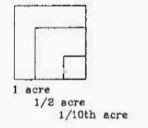
City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071



CITY OF WOODBURN LOCAL WETLAND INVENTORY



- Wetlands
- SC-2B** Wetland label
- Riparian areas
- SC-L-1** Riparian label
- Sample site
- Wetlands (DSL DET)
- DSL DET #** DSL DET #
- Perennial stream
- Wetland channel
- On site mapping



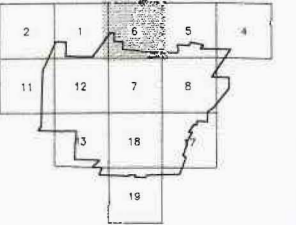
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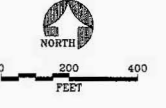
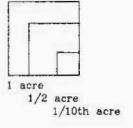
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City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071

CITY OF WOODBURN
LOCAL
WETLAND INVENTORY



- Wetlands
- SC-2B** Wetland label
- Riparian areas
- SC-L-1** Riparian label
- Sample site
- Wetlands (DSL DET)
- DSL DET #**
97-0453 DSL DET #
- Perennial stream
- Wetland channel
- On site mapping



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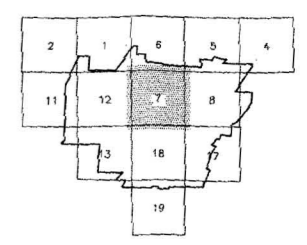
City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071

SHAPIRO
& ASSOCIATES, INC.

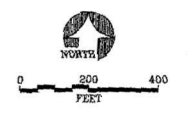
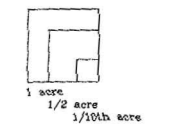


T 5S R 1W Section 07

**CITY OF WOODBURN
LOCAL
WETLAND INVENTORY**



- Wetlands
- SC-2B Wetland label
- Riparian areas
- SC-L-1 Riparian label
- Sample site
- Wetlands (DSL DET)
- DSL DET # 97-0453
- Perennial stream
- Wetland channel
- On site mapping



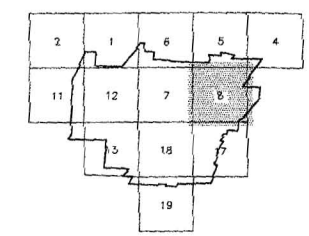
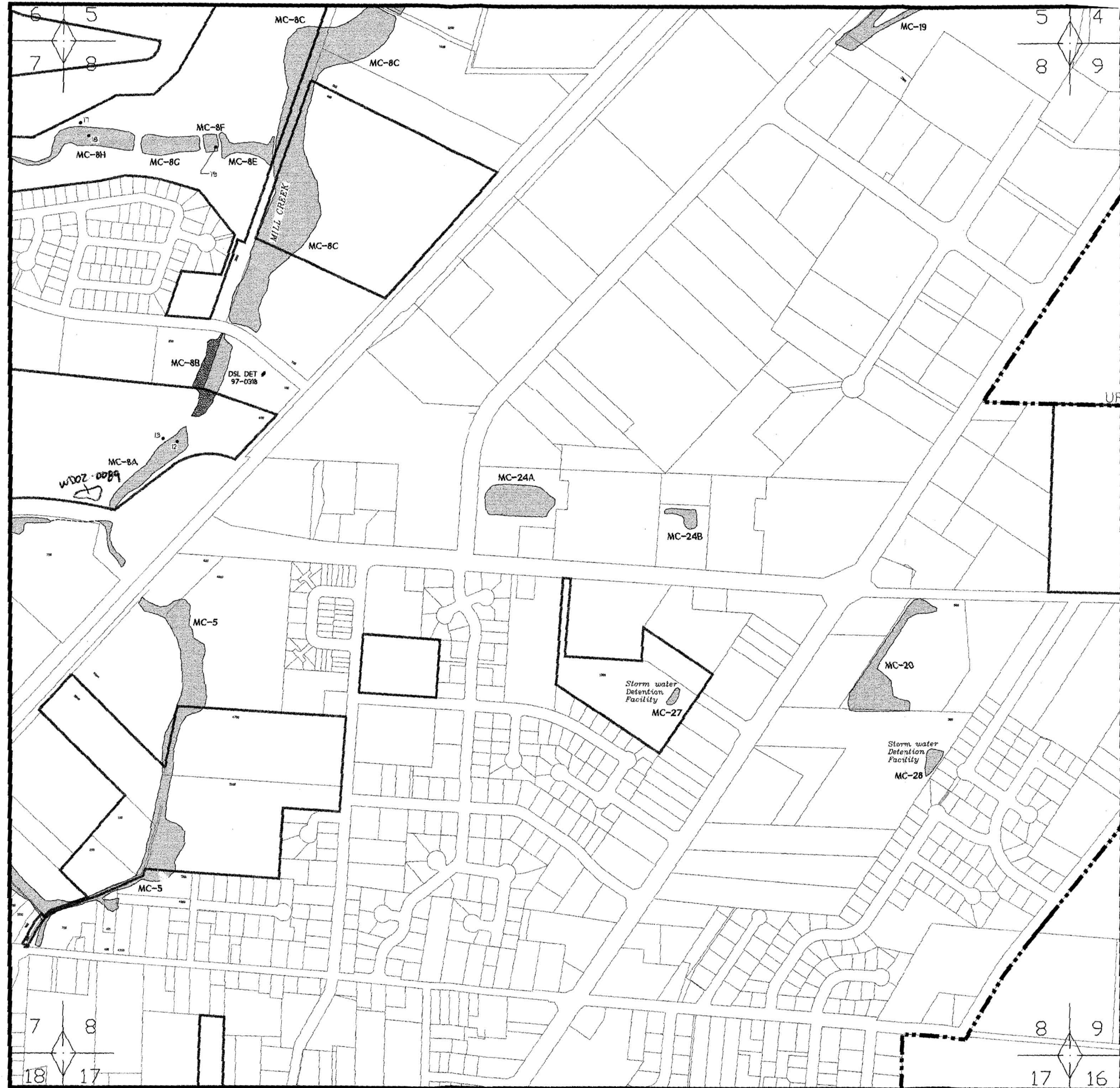
JANUARY 2000

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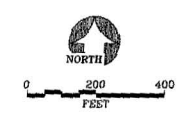
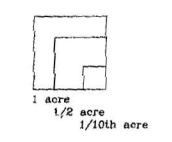
City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071



CITY OF WOODBURN LOCAL WETLAND INVENTORY



- Wetlands
- Wetland label
- Riparian areas
- Riparian label
- Sample site
- Wetlands (DSL DET)
- DSL DET #
- Perennial stream
- Wetland channel
- On site mapping

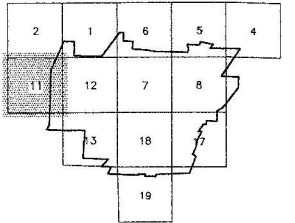


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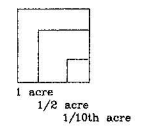
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City of Woodburn
 270 Montgomery Street
 Woodburn, Oregon 97071

CITY OF WOODBURN LOCAL WETLAND INVENTORY



- Wetlands
- SC-2B** Wetland label
- Riparian areas
- SC-L-1** Riparian label
- Sample site
- Wetlands (DSL DET)
- DSL DET # 97-0453** DSL DET #
- Perennial stream
- Wetland channel
- On site mapping

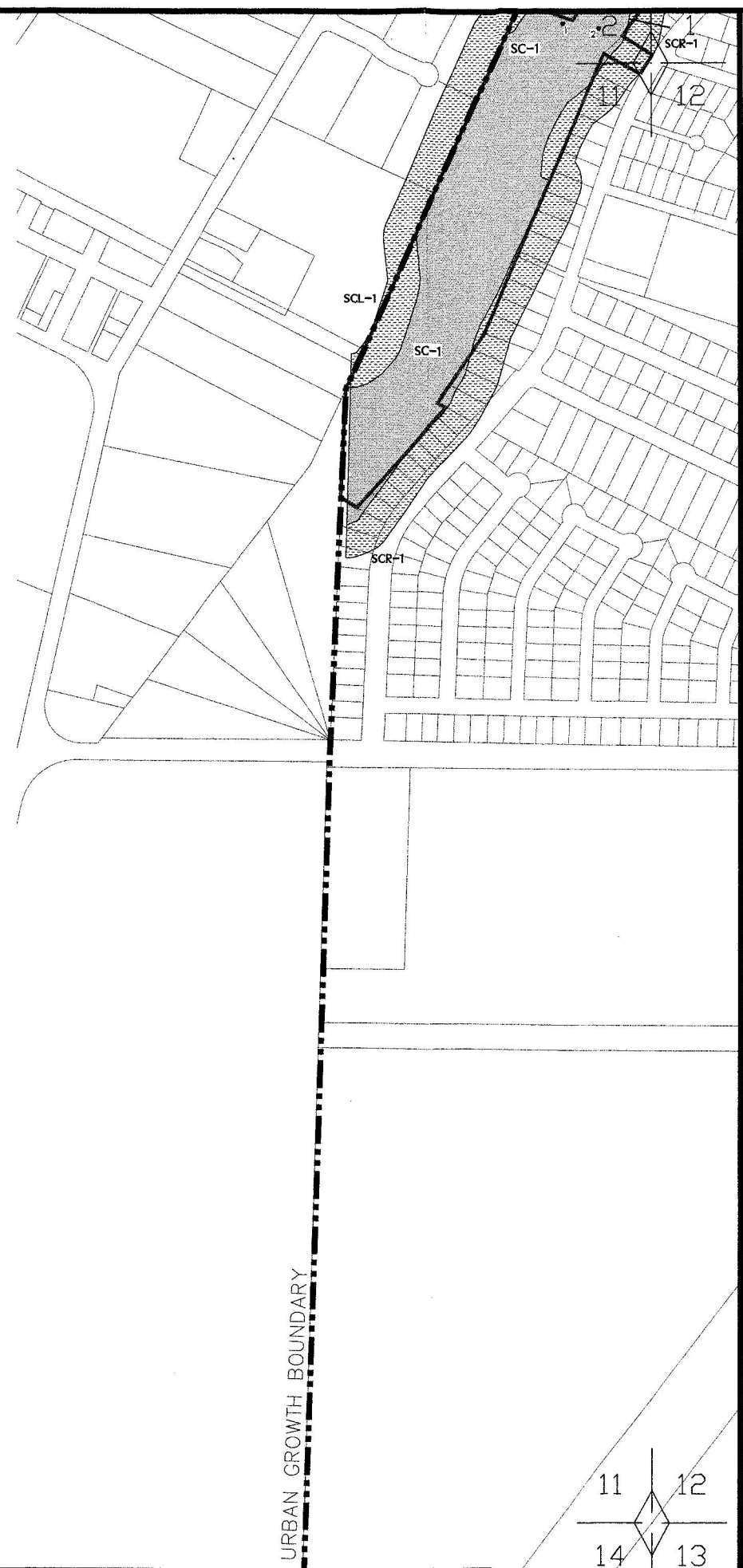


JANUARY
2000

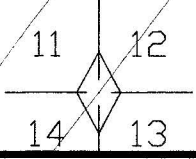
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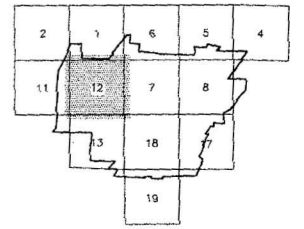
City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071



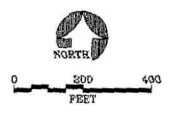
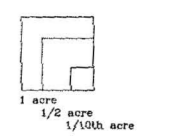
URBAN GROWTH BOUNDARY



CITY OF WOODBURN LOCAL WETLAND INVENTORY



- Wetlands
- SC-2B** Wetland label
- Riparian areas
- SC-L-1** Riparian label
- Sample site
- Wetlands (DSL DET)
- DSL DET # 97-0454** DSL DET #
- Perennial stream
- Wetland channel
- On site mapping



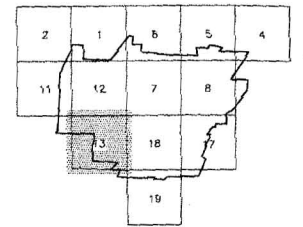
JANUARY 2000

WETLAND INFORMATION IS SUBJECT TO CHANGE

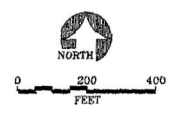
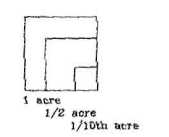
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City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071

CITY OF WOODBURN LOCAL WETLAND INVENTORY



- Wetlands
- SC-2B Wetland label
- Riparian areas
- SC-L-1 Riparian label
- Sample site
- Wetlands (DSL DET)
- DSL DET #
- Perennial stream
- Wetland channel
- On site mapping

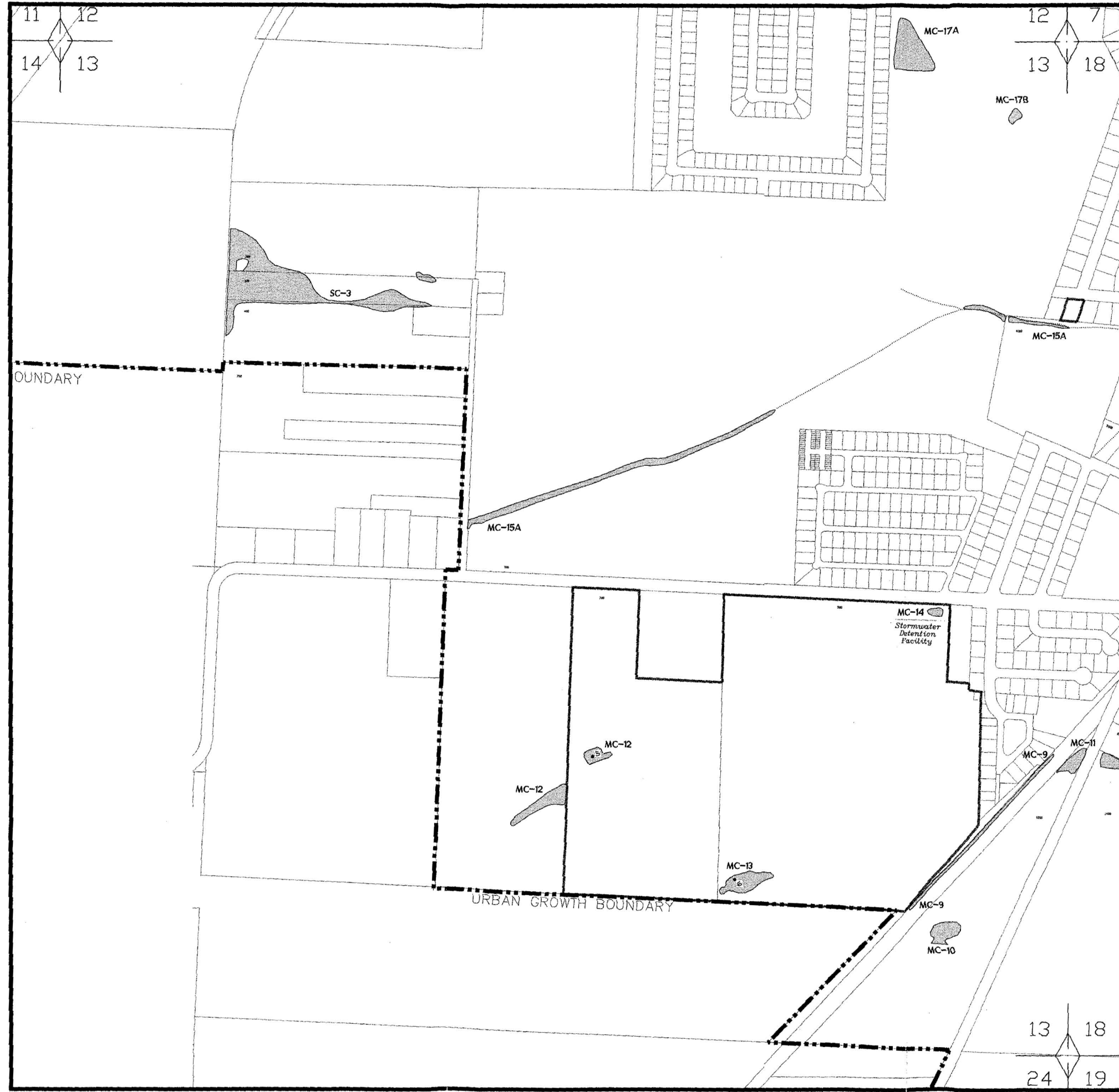


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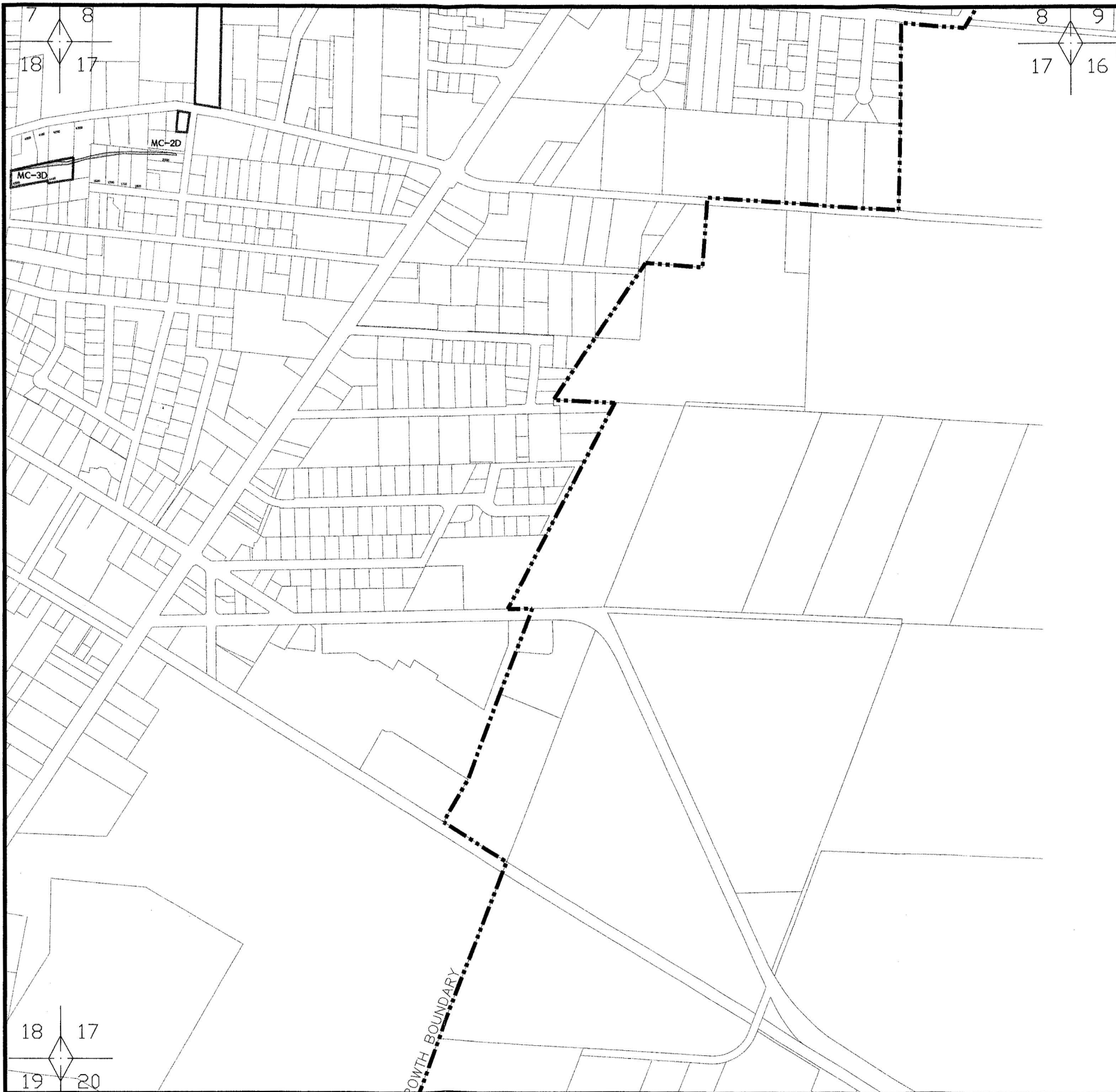
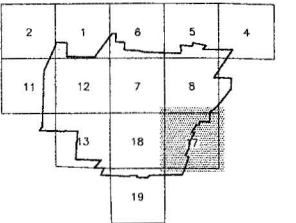
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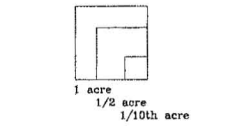
City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071



CITY OF WOODBURN LOCAL WETLAND INVENTORY



- Wetlands
- SC-2B** Wetland label
- Riparian areas
- SC-L-1** Riparian label
- Sample site
- Wetlands (DSL DET)
- DSL DET #** DSL DET #
- Perennial stream
- Wetland channel
- On site mapping



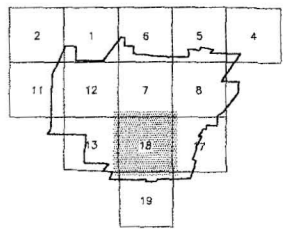
JANUARY
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





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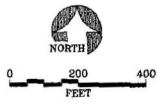
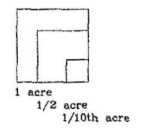
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City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071

CITY OF WOODBURN LOCAL WETLAND INVENTORY



-  Wetlands
- SC-2B** Wetland label
-  Riparian areas
- SC-L-1** Riparian label
-  Sample site
-  Wetlands (DSL DET)
- DSL DET #**
97-0453 DSL DET #
-  Perennial stream
-  Wetland channel
-  On site mapping



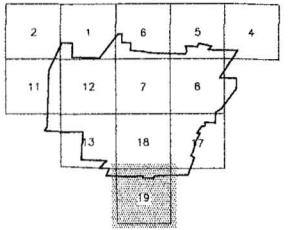
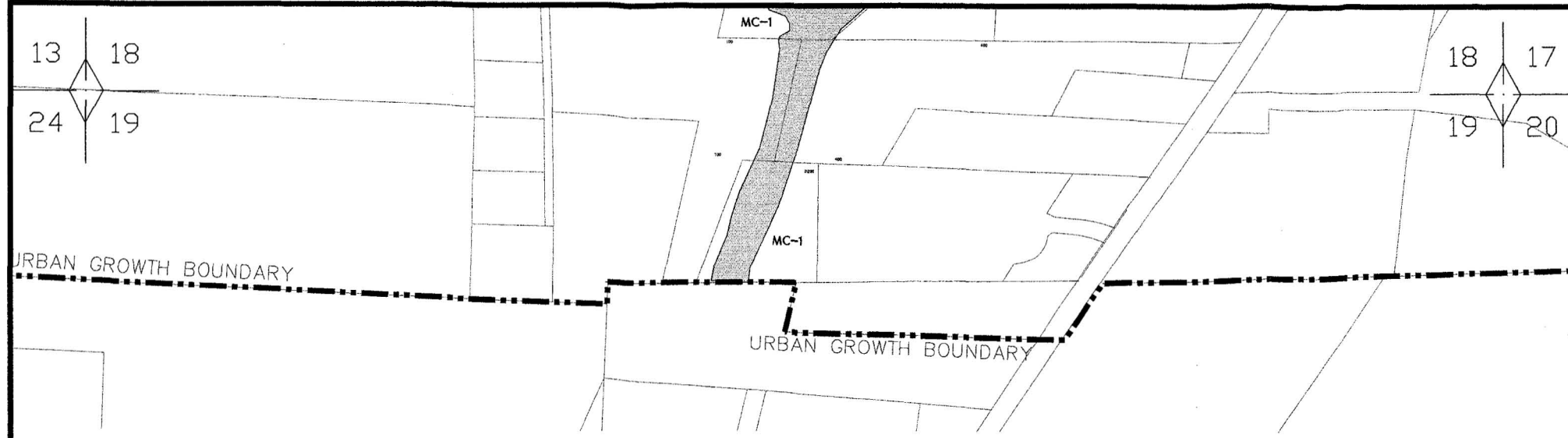
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






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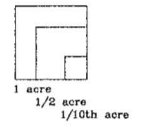
City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071



**CITY OF WOODBURN
LOCAL
WETLAND INVENTORY**



-  Wetlands
- SC-2B** Wetland label
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-  Wetlands (DSL DET)
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-  Perennial stream
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JANUARY
2000

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City of Woodburn
270 Montgomery Street
Woodburn, Oregon 97071

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-01

Investigator(s): KC/PO

Size (acres): 8.75

Location

Legal: T5S R1W S18 & S19

Sec.18 (100, 4100) Sec.19 (100)

Other: South of intersection of Hermason & Deer Run St.

Basin: Mill Creek

Soils

Mapped Series: Ba, Da, WuD

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): POW

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

Field dominated by reed canary grass (*Phalaris arundinacea*) with drainage ditch bisecting the field roughly through its center. East side of site bordered by Himalayan blackberry (*Rubus discolor*). West side bordered by meadow foxtail (*Alopecurus pratensis*). South end of site bordered by a grove of ash (*Fraxinus latifolia*) with an understory of Himalayan blackberry. The drainage ditch connects to a pond (possibly excavated) at the north end of the grassy field. Two small islands with willow growing on them, are located in the pond. A culvert exits from the pond at its north end. The field and pond have good potential for future enhancement.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 07/22/98	Investigator(s): KC/PO
Project Name: City of Woodburn	
Wetland Code: MC-01	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: B	Q1: C	Q1:	Q1: A	Q1: A	Q1: A
Q2: B	Q2: B	Q2:	Q2: A	Q2: A	Q2: A
Q3: C	Q3: C	Q3:	Q3: A	Q3: A	Q3: A
Q4: A	Q4: A	Q4:	Q4: A	Q4: A	Q4: A
Q5: A	Q5: C	Q5:	Q5: A	Q5: B	Q5: A
Q6: A	Q6: B	Q6:	Q6: A	Q6: A	Q6: C
Q7: C				Q7: B	
Q8: C					
Q9a:					
Q9b: B					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: A	Q1: A	Q1: A	Q1: C
Q2: A	Q2: A	Q2: C	Q2: A
Q3: B	Q3: B	Q3: C	Q3: A
Q4: A	Q4: A	Q4: B	Q4: B
Q5a:	Q5: A	Q5: A	Q5: A
Q5b: B	Q6: B	Q6: B	Q6: A
Q6: C			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	The wetland's fish habitat function is impacted or degraded.
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is intact.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is sensitive to future impacts.
Enhancement Potential:	The wetland has high enhancement potential.
Education:	The wetland has educational uses.
Recreation:	The wetland provides recreational opportunities.
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

Wetland Code: MC-01	Project Number: 2981036
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Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with more than 5 plant species. Emergent veg. & ponding or open water only. Low degree of Cowardin class interspersed. More than 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. One or more upstream reaches are listed water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is impacted or degraded.	Less than 50% of stream shaded by riparian vegetation. Portions of stream channel modified. Stream contains less than 10% of instream structures. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. Non-Salmonid, non-sensitive fish species present sometime during the year.
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is intact.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. High (>60%) degree of wetland vegetation cover. More than 5 acres of wetland area. Residential/Industrial land use within 500 feet of wetland edge. One or more upstream reaches are listed water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is more than 5 acres. Waterflow out of wetland is restricted or no outlet. Emergent veg. and ponding, or open water only is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Agricultural land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is being taken out of stream(s) through active diking, drainage, or irrigation districts upstream. One or more upstream reaches listed as water quality limited in watershed or adjacent to the wetland. Residential/Industrial (developed) land use within 500 feet of wetland's edge. Dominant

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-01

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. and ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	The wetland has high enhancement potential.	One or more of functions for assessment results for wildlife habitat, fish habitat, water quality and hydrologic control is impacted or degraded. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is restricted, but may be breached or new flow channel created. Wetland's area is more than 5 acres. Between 10 and 40 % of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is sensitive to future impacts.
<i>Education</i>	The wetland has educational uses.	Wetland site is open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is existing physical public access to other features or it can be created easily and other habitats can be observed from this site. There is a maintained public access point within 250 feet of the wetland's edge. Access is not available for limited mobility.
<i>Recreation</i>	The wetland provides recreational opportunities.	There is a maintained public access point within 250 feet of wetland's edge. Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is allowed at wetland or adjacent water body. Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). More than 50% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-01

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

**City of Woodburn
Local Wetland Significance Assessment**

WetlandCode: MC-01

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- Yes** water quality,
- Yes** hydrologic control.

Yes Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-02 a-d

Investigator(s): KC/PO

Size (acres): 1.64

Location

Legal: T5S R2W S18

2100, 2200, 3500, 3600, 3800,

Other: W of Cleveland/Marshall intersection, S to pond

3900, 7000, 7100, 8400, 8500,

Basin: Mill Creek

8600, 11400, 11500, 12000, 12100

Soils

Mapped Series: Ba

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

Most of this is in the Mill Creek Greenway (City of Woodburn). Highly disturbed ditch between houses. Pipe crossings. Mowed to top of bank. Lots of invasive species. Occasionally tree lined (mostly ash (*Fraxinus latifolia*)). Reed canarygrass (*Phalaris arundinaceae*) in most places but conspicuously absent in some. Abundant water-starwort (*Callitriche heterophylla*) in stream. Potential for enhancement high.

Wetland Classification Codes:

PFO = palustrine forested

PSS = palustrine scrub-shrub

RSB = riverine streambed (intermittent)

PEM = palustrine emergent

POW = palustrine open water

RUB = riverine unconsolidated bottom

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-02 Plot: 14
 T 5S R 2W S 18 City: Woodburn County: Marion State: OR
 Plot Location; Topography: SW of intersection of Cleveland and Marshall streets.
 Project #: 2981036 Determined by: KC/PO Date: 7/22/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? No

Explanation: Vegetation mowed to creek; stream confined to ditch.

Are Soils Vegetation Hydrology significantly disturbed? Yes

Explanation: Vegetation (probably reed canarygrass) mowed to the creek.

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:		70	Shrub/Sapling Stratum - % total cover: 0
<i>Phalaris arundinacea</i>	FACW	60	
<i>Rorippa nasturtium-aquaticum</i>	OBL	20	
<i>Equisetum arvense</i>	FAC	15	
<i>Rumex crispus</i>	FAC+	5	
<i>Myosotis laxa</i>	OBL	5	
Woody Vine Stratum - % total cover:		100	Tree Stratum - % total cover: 0
<i>Convolvulus arvensis</i>	UPL	15	

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2 of 3 = 67 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw clay
 Drainage Class: poorly to very poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-16"	2.5Y 2.5/0	gleyed	clay loam

Histosol Prob. Aquic moisture regime Redox features Organic streaking
 Histic epipedon Reducing conditions Concretions Organic pan
 Sulfidic odor Gleyed Highly organic surface layer On hydric soils list

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: 16" Depth to saturation: 0"

Primary Indicators: **Secondary Indicators (2 or more required):**

Inundated Oxidized rhizospheres Local soil survey data
 Saturated in upper 12" Water-stained leaves FAC-Neutral test
 Water marks Recorded data (aerials, groundwater data)
 Drift lines Explain:
 Sediment deposits Other
 Drainage patterns Explain:

Hydrology Criterion Met? Yes

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 07/22/98	Investigator(s): KC/PO
Project Name: City of Woodburn	
Wetland Code: MC-02	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: B	Q1: B	Q1:	Q1: A	Q1: A	Q1: A
Q2: C	Q2: C	Q2:	Q2: A	Q2: A	Q2: B
Q3: C	Q3: C	Q3:	Q3: B	Q3: B	Q3: A
Q4: A	Q4: A	Q4:	Q4: B	Q4: B	Q4: A
Q5: A	Q5: C	Q5:	Q5: A	Q5: C	Q5: A
Q6: A	Q6: B	Q6:	Q6: A	Q6: A	Q6: C
Q7: C				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: C	Q1: C
Q2: A	Q2: B	Q2: C	Q2: C
Q3: C	Q3: B	Q3: C	Q3: C
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: A	Q5: B	Q5: B
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	The wetland's fish habitat function is impacted or degraded.
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland has potential for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational opport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-02	ProjectNumber: 2981036
---------------------------	-------------------------------

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with more than 5 plant species. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. One or more upstream reaches are listed water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is impacted or degraded.	Between 50 and 75% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. Non-Salmonid, non-sensitive fish species present sometime during the year.
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. Moderate (approx. 60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. One or more upstream reaches are listed water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Minor restrictions slow down waterflow out of the wetland. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. One or more upstream reaches listed as water quality limited in watershed or adjacent to the wetland. Residential/industrial (developed) land use

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-02	ProjectNumber: 2981036
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Function	Evaluation Descriptor	Rationale
		within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. and ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is restricted and cannot be restored. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation. One to two visible safety hazards exist at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is a maintained public access point within 250 feet of the wetland's edge. Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Less than 25% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. At certain times, unpleasant odors are present at the primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-02

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

**City of Woodburn
Local Wetland Significance Assessment**

WetlandCode: MC-02

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- No** water quality,
- Yes** hydrologic control.

Yes Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-03 a-d

Investigator(s): CM/DG

Size (acres): 4.11

Location

Legal: T5S R1W S7 & S18

200, 300, 1000, 1800, 1900, 2400,
2500, 3000, 3300, 3600, 3700,
3800, 5300, 5800

Other: N of RR, NE of Cleveland & Brown, N to
Hardcastle

Basin: Mill Creek

Soils

Mapped Series: Ba, WuA, WuD, Te

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM, PFO

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

This wetland contains the channel of Mill Creek with a small Oregon ash (*Fraxinus latifolia*) forest in the northern portion. The majority of the wetland is vegetated with reed canarygrass (*Phalaris arundinaceae*) that is periodically mowed. This mowing keeps shrub species from becoming established and access by pedestrians is not difficult. Wetland hydrology source is surface runoff and shallow groundwater. The soil has a very high clay content so water does not percolate through the soil quickly. Instead, it flows overland to Mill Creek and other drainages.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-03 Plot: 8
 T 5S R 1W S 18 City: Woodburn County: Marion State: OR
 Plot Location; Topography: NW of intersection of Lincoln and Gatch streets.
 Project #: 2981036 Determined by: CM/DG Date: 7/22/98

DETERMINATION: IS THIS PLOT IN A WETLAND? No

Do Normal Circumstances exist on the site? Yes

Are Soils Vegetation Hydrology significantly disturbed? No

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:		100	Shrub/Sapling Stratum - % total cover: 0
	<i>Alopecurus pratensis</i>	FACW 38	
	<i>Festuca arundinacea</i>	FAC- 30	
	<i>Convolvulus sepium</i>	UPL 20	
	<i>Equisetum arvense</i>	FAC 10	
	<i>Phalaris arundinacea</i>	FACW 2	
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover: 0

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1 of 3 = 33 % (50/20 Rule)

Remarks: Mowed this season.

Vegetation Criterion Met? No

SOILS Mapped Unit Name: Bashaw clay
 Drainage Class: Poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other			
	<u>0-18"</u>	<u>10 YR 3/2</u>		<u>silty clay loam</u>			
<input type="checkbox"/>	Histosol	<input type="checkbox"/>	Prob. Aquic moisture regime	<input type="checkbox"/>	Redox features	<input type="checkbox"/>	Organic streaking
<input type="checkbox"/>	Histic epipedon	<input type="checkbox"/>	Reducing conditions	<input type="checkbox"/>	Concretions	<input type="checkbox"/>	Organic pan
<input type="checkbox"/>	Sulfidic odor	<input type="checkbox"/>	Gleyed	<input type="checkbox"/>	Highly organic surface layer	<input checked="" type="checkbox"/>	On hydric soils list

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >18" Depth to saturation: >18"

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
- Water-stained leaves
- Recorded data (aerials, groundwater data)
- Local soil survey data
- FAC-Neutral test
- Other Explain:

Hydrology Criterion Met? No

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-03 Plot: 9
 T 5S R 1W S 18 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Swale W of channel NW of intersection of Lincoln and Gatch streets.
 Project #: 2981036 Determined by: CM/DG Date: 7/22/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? **Yes**

Are Soils Vegetation Hydrology significantly disturbed? **No**

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:	
Herb Stratum - % total cover:		50	Shrub/Sapling Stratum - % total cover:	
	<i>Alopecurus pratensis</i>	FACW 80		0
	<i>Phalaris arundinacea</i>	FACW 10		
	<i>Festuca arundinacea</i>	FAC- 5		
	<i>Holcus lanatus</i>	FAC 5		
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover:	
			<i>Fraxinus latifolia</i>	FACW 100

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2 of 2 = 100 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw clay
 Drainage Class: poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0"-10"	10 YR 3/2		silty clay loam
	10"-	10 YR 2/1	few/coarse 7.5 YR 4/3	clayey silt

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input checked="" type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >18" Depth to saturation: >18"

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
 - Water-stained leaves
 - Recorded data (aerials, groundwater data)
 - Local soil survey data
 - FAC-Neutral test
 - Other
- Explain: moist to surface

Remarks: Low-lying area showing evidence of ponding.

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-03 Plot: 10
 T 5S R 1W S 18 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Ditch W of intersection of Lincoln and Gatch streets.
 Project #: 2981036 Determined by: KC/PO Date: 7/22/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? No

Explanation: Mowed to top of bank.

Are Soils Vegetation Hydrology significantly disturbed? Yes

Explanation: Stream confined to straight ditch. Vegetation is mowed to top of bank.

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:		100	Shrub/Sapling Stratum - % total cover:
<i>Phalaris arundinacea</i>	FACW	90	0
<i>Convolvulus arvensis</i>	UPL	10	
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover:
			0

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1 of 1 = 100 % (50/20 Rule)

Remarks: Mowed.

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw
 Drainage Class: Poorly to very poorly drained
 Taxonomy: Very fine, montmorillonitic mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0"-16"	7.5 YR 2.5/1	small few mottles, bright	clayey silt loam
<input type="checkbox"/> Histosol	<input type="checkbox"/> Prob. Aquic moisture regime	<input checked="" type="checkbox"/> Redox features	<input type="checkbox"/> Organic streaking	
<input type="checkbox"/> Histic epipedon	<input type="checkbox"/> Reducing conditions	<input type="checkbox"/> Concretions	<input type="checkbox"/> Organic pan	
<input type="checkbox"/> Sulfidic odor	<input type="checkbox"/> Gleyed	<input type="checkbox"/> Highly organic surface layer	<input checked="" type="checkbox"/> On hydric soils list	

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >16" Depth to saturation: >16"

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
- Water-stained leaves
- Recorded data (aerials, groundwater data)
- Local soil survey data
- FAC-Neutral test
- Explain:
- Other
- Explain:

Remarks: Probably a flood plain.

Hydrology Criterion Met? No

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-03 Plot: 11
 T 5S R 2W S 7 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Swale about 50' W of channel NW of intersection of Lincoln and Gatch streets.
 Project #: 2981036 Determined by: KC/PO Date: 7/22/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? No

Explanation: Mowed ditch

Are Soils Vegetation Hydrology significantly disturbed? Yes

Explanation: Appears that native ash woodland has been removed.

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:		100	Shrub/Sapling Stratum - % total cover: 0
	<i>Phalaris arundinacea</i>	FACW 100	
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover: 10
			<i>Fraxinus latifolia</i> FACW 100

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2 of 2 = 100 % (50/20 Rule)

Remarks: Depressional area of predominantly reed canarygrass (*Phalaris arundinacea*) is bordered by a small ash woodland with an understory of wetland plant species. (see OFWAM).

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw
 Drainage Class: poorly to very poorly drained
 Taxonomy: Very fine montmorillonitic mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-14"	10 R 2.5/1	small, few, mottles	blocky structure, clayey silt loam

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input checked="" type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Remarks: Gravel at 14".

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >14" Depth to saturation: >14"

- | | |
|---|--|
| Primary Indicators: | Secondary Indicators (2 or more required): |
| <input type="checkbox"/> Inundated | <input checked="" type="checkbox"/> Oxidized rhizospheres |
| <input type="checkbox"/> Saturated in upper 12" | <input checked="" type="checkbox"/> Local soil survey data |
| <input type="checkbox"/> Water marks | <input type="checkbox"/> Water-stained leaves |
| <input type="checkbox"/> Drift lines | <input type="checkbox"/> FAC-Neutral test |
| <input type="checkbox"/> Sediment deposits | <input type="checkbox"/> Recorded data (aerials, groundwater data) |
| <input checked="" type="checkbox"/> Drainage patterns | Explain: |
| | <input type="checkbox"/> Other |
| | Explain: |

Remarks: Soil moist but not saturated.

Hydrology Criterion Met? Yes

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 07/22/98	Investigator(s): KC/PO
Project Name: City of Woodburn	
Wetland Code: MC-03	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: A	Q1:	Q1:	Q1: A	Q1: A	Q1: A
Q2: C	Q2:	Q2:	Q2: A	Q2: A	Q2: B
Q3: C	Q3:	Q3:	Q3: B	Q3: B	Q3: A
Q4: A	Q4:	Q4:	Q4: B	Q4: B	Q4: A
Q5: A	Q5:	Q5:	Q5: A	Q5: C	Q5: A
Q6: A	Q6:	Q6:	Q6: A	Q6: A	Q6: C
Q7: C				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: C	Q1: C	Q1: B
Q2: A	Q2: A	Q2: C	Q2: B
Q3: C	Q3: B	Q3: C	Q3: A
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational oport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

Wetland Code: MC-03

Project Number: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	Two or more Cowardin wetland classes. Emergent veg. or wet meadow. Low degree of Cowardin class interspersation. More than 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. One or more upstream reaches are listed water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. Moderate (approx. 60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. One or more upstream reaches are listed water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Minor restrictions slow down waterflow out of the wetland. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. One or more upstream reaches listed as water quality limited in watershed or adjacent to the wetland. Residential/industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. and ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-03

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is restricted and cannot be restored. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland site is not appropriate for educational use.	Wetland site is not open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	Two Cowardin classes are visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**City of Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-03

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **B**

Question 9 **B**

Question 10 **B**

**City of Woodburn
Local Wetland Significance Assessment**

WetlandCode: MC-03

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- No** water quality,
- Yes** hydrologic control.

No Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-04

Investigator(s): CM/DG

Size (acres): 0

Location

Legal: T5S R1W S7

100, 200, 8800, 890, 9000

Other: W of RR, between Mt. Hood Ave and Hardcastle Ave

Basin: Mill Creek

Soils

Mapped Series: Ba, Da, Te

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM, PSS

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

MC-4 consists of two short excavated segments in a residential neighborhood. The two segments are separated by a street crossing, but are hydrologically connected by a culvert under the street. The small wetland may provide a very small amount of stormwater detention. The excavated area is broad enough that temporary flooding and storage of surface runoff may occur. The wetland is vegetated by grasses.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 09/15/98	Investigator(s): JG
Project Name: City of Woodburn	
Wetland Code: MC-04	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: A	Q1: C	Q1:	Q1: A	Q1: A	Q1: A
Q2: C	Q2: C	Q2:	Q2: A	Q2: A	Q2: B
Q3: C	Q3: C	Q3:	Q3: A	Q3: B	Q3: A
Q4: B	Q4: C	Q4:	Q4: B	Q4: C	Q4: A
Q5: A	Q5: C	Q5:	Q5: A	Q5: C	Q5: A
Q6: A	Q6: C	Q6:	Q6: A	Q6: A	Q6: B
Q7: C				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: C	Q1: C
Q2: A	Q2: A	Q2: C	Q2: B
Q3: A	Q3: B	Q3: C	Q3: C
Q4: B	Q4: A	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	The wetland's fish habitat function is lost or not present.
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is intact.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland has potential for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational opport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-04	ProjectNumber: 2981036
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Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	Two or more Cowardin wetland classes. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. Between 0.5 and 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. One or more upstream reaches are listed water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is lost or not present.	Less than 50% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. One or more upstream reaches are listed water quality limited. Residential/Industrial land use within 500 feet of wetland edge. No fish species present during the year.
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is intact.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. High (>60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. One or more upstream reaches are listed water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is unrestricted. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. One or more upstream reaches listed as water quality limited in watershed or adjacent to the wetland. Residential/Industrial (developed) land use

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-04

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is existing physical public access to other features or it can be created easily and other habitats can be observed from this site. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-04

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		at primary viewing locations.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-05

Investigator(s): CM/DG

Size (acres): 6.52

Location

Legal: T5S R1W S7 & S8

Other: E of RR, between Mt. Hood Ave and Hardcastle Ave

Basin: Mill Creek

100, 200, 400, 401, 500, 600, 700,
800, 900, 1000, 1700, 1800, 1900,
2000, 2100, 2200, 4700, 4800,
4900, 5000, 5100, 9000

Soils

Mapped Series: Ba, Da, Te

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM, PSS

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

This wetland area contains the incised channel of Mill Creek and the wetland is mostly a narrow strip with a couple of low-lying areas where the wetland becomes wider. The majority of the wetland is vegetated with reed canarygrass (*Phalaris arundinaceae*) with the southern wider area containing Pacific and Scouler's willow shrubs (*Salix lasiandra*, *Salix scouleriana*). This portion of Mill Creek is not mowed as often as other portions and pedestrian access is more difficult. The soil has a high clay content and the wetland area is poorly drained. The majority of the water that enters the wetland must drain through Mill Creek instead of percolating into the aquifer. Recently planted shore pine seedlings were observed along the eastern bank of Mill Creek.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	09/15/98	Investigator(s):	JG
Project Name:	City of Woodburn		
Wetland Code:	MC-05	Project Number:	2981036

	Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1:	A	Q1: C	Q1:	Q1: A	Q1: A	Q1: A
Q2:	C	Q2: C	Q2:	Q2: A	Q2: A	Q2: B
Q3:	C	Q3: C	Q3:	Q3: A	Q3: B	Q3: A
Q4:	A	Q4: C	Q4:	Q4: B	Q4: C	Q4: A
Q5:	A	Q5: C	Q5:	Q5: A	Q5: C	Q5: A
Q6:	A	Q6: C	Q6:	Q6: B	Q6: A	Q6: C
Q7:	C				Q7: A	
Q8:	C					
Q9a:						
Q9b:	C					

	Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1:	B	Q1: A	Q1: C	Q1: C
Q2:	A	Q2: A	Q2: C	Q2: B
Q3:	A	Q3: B	Q3: C	Q3: C
Q4:	B	Q4: C	Q4: B	Q4: B
Q5a:		Q5: C	Q5: B	Q5: B
Q5b:	C	Q6: B	Q6: B	Q6: B
Q6:	B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	The wetland's fish habitat function is lost or not present.
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is intact.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland has potential for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational opport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-05

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	Two or more Cowardin wetland classes. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. One or more upstream reaches are listed water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is lost or not present.	Less than 50% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. One or more upstream reaches are listed water quality limited. Residential/Industrial land use within 500 feet of wetland edge. No fish species present during the year.
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is intact.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. High (>60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. One or more upstream reaches are listed moderate water quality stream reaches in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is unrestricted. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. One or more upstream reaches listed as water quality limited in watershed or adjacent to the wetland. Residential/Industrial (developed) land use

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-05

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. and ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. At certain times, unpleasant odors are present at the primary viewing location. Continuous traffic and other intrusive noise and natural

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-05	ProjectNumber: 2981036
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Function	Evaluation Descriptor	Rationale
		sounds are audible at primary viewing location.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-05

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

**City of Woodburn
Local Wetland Significance Assessment**

WetlandCode: MC-05

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- Yes** water quality,
- Yes** hydrologic control.

Yes Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 08/04/98

Wetland Mapping Code: MC-06

Investigator(s): JG/ES

Size (acres): 1.24

Location

Legal: T5S R1W S7

700, 900

Other: S of Hwy 214, 600' W of Hwy 214/Front St.

Basin: Mill Creek

Soils

Mapped Series: Ba

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. This wetland is approximately 50' wide and 1100' in length, oriented roughly west to east, bordered by Hwy 214 on the north, Front St. to the east, and a drainage ditch (Goose Creek) on its south side. The site slopes gently toward the south from Hwy. 214, and appears to have been mowed prior to this site investigation. The drainage is connected to MC-7A to the west by a culvert under Hwy. 214, and connected to MC-5 to the southwest by a culvert under Front St.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 07/22/98	Investigator(s): CM/DG
Project Name: City of Woodburn	
Wetland Code: MC-06	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: C	Q1:	Q1:	Q1: A	Q1: B	Q1: A
Q2: C	Q2:	Q2:	Q2: A	Q2: A	Q2: B
Q3: C	Q3:	Q3:	Q3: A	Q3: B	Q3: C
Q4: A	Q4:	Q4:	Q4: B	Q4: B	Q4: A
Q5: A	Q5:	Q5:	Q5: A	Q5: C	Q5: A
Q6: A	Q6:	Q6:	Q6: C	Q6: A	Q6: B
Q7: A				Q7: A	
Q8: C					
Q9a:					
Q9b: A					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: A	Q1: C
Q2: A	Q2: A	Q2: C	Q2: A
Q3: A	Q3: B	Q3: B	Q3: C
Q4: B	Q4: B	Q4: B	Q4: B
Q5a:	Q5: A	Q5: B	Q5: A
Q5b: A	Q6: A	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is intact.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland has educational uses.
Recreation:	The wetland has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-06

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. More than 40% of wetland edge bordered by veg. buffer 25 or more feet wide.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is intact.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. High (>60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Minor restrictions slow down waterflow out of the wetland. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/Industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>	The wetland has moderate	Wetland has lost one or more functions or

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-06

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
	potential for enhancement.	one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is between 0.5 and 5 acres. More than 40% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has educational uses.	Wetland site is open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, but observation of other features can be made. There is a maintained public access point within 250 feet of the wetland's edge. Access is available for limited mobility.
<i>Recreation</i>	The wetland has the potential to provide recreational opportunities.	There is a maintained public access point within 250 feet of wetland's edge. Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. Existing undeveloped trails and viewing ares to guide user. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). More than 50% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-06

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn
Local Wetland Significance Assessment

WetlandCode: MC-06

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- Yes** water quality,
- Yes** hydrologic control.

Yes Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 08/04/98

Wetland Mapping Code: MC-07a,b

Investigator(s): JG/ES

Size (acres): 2.15

Location

Legal: T5S R1W S7

600, 2200, 22601, 7200, 7300,

Other: N. of Hwy 214, S. of Woodburn H.S. athletic fields

7400, 7500, 7600, 7800, 7900,

Basin: Mill Creek

8000, 8100, 8200, 18400, 18500,

18600, 18700, 18800

Soils

Mapped Series: Ba, Da

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM, RUB

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

Goose Cr. emerges from a culvert at the NE corner of Lincoln Elementary School property. The channelized creek enters the wetland from the west and maintains the wetland's southern boundary. The east to west trending 50' by 450' site is a mowed field, sloping upward gently to the north. Soils were low in chroma with mottles and concretions.

Wetland Classification Codes:

PFO = palustrine forested

PSS = palustrine scrub-shrub

RSB = riverine streambed (intermittent)

PEM = palustrine emergent

POW = palustrine open water

RUB = riverine unconsolidated bottom

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-07 Plot: 15
 T 5S R 1W S 7 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Sloping mowed field south of Woodburn High School athletic fields, north of Hwy 214.
 Project #: 2981036 Determined by: JG/ES Date: 8/4/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? No

Explanation: Mowed field; channelized stream.

Are Soils Vegetation Hydrology significantly disturbed? Yes

Explanation: Mowed field; and channelized stream.

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:		100	Shrub/Sapling Stratum - % total cover:
			0
	<i>Alopecurus pratensis</i>	FACW 35	
	<i>Holcus lanatus</i>	FAC 35	
	<i>Festuca arundinacea</i>	FAC- 20	
	<i>Plantago lanceolata</i>	FAC 15	
	<i>Rumex acetosa</i>	NI 5	
	<i>Taraxacum officinale</i>	FACU 5	
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover:
			0

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2 of 3 = 67 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw clay
 Drainage Class: poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic, Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	<u>0-6"</u>	<u>10YR3/2</u>	<u>mottling, faint, common</u>	<u>fine sandy loam</u>
	<u>6-18"</u>	<u>10YR3/1</u>		<u>silty loam</u>

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input checked="" type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input checked="" type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >18" Depth to saturation: >18"

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
- Local soil survey data
- Water-stained leaves
- FAC-Neutral test
- Recorded data (aerials, groundwater data)
- Explain: _____
- Other
- Explain: _____

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-07 Plot: 16
 T 5S R 1W S 7 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Mid-point of slope south facing slope; S of Woodburn HS athletic field, North of Hwy 214.
 Project #: 2981036 Determined by: JG/ES Date: 8/4/98

DETERMINATION: IS THIS PLOT IN A WETLAND? No

Do Normal Circumstances exist on the site? No

Explanation: mowed field; channelized stream

Are Soils Vegetation Hydrology significantly disturbed? No

Explanation: Mowed field; and channelized stream.

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:		100	Shrub/Sapling Stratum - % total cover: 0
<i>Holcus lanatus</i>	FAC	20	
<i>Poa pratensis</i>	FAC	10	
<i>Leontodon leysleri</i>	UPL	10	
<i>Rumex acetosella</i>	FACU	5	
<i>Daucus carota</i>	UPL	5	
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover: 0

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2 of 5 = 40 % (50/20 Rule)

Remarks: About 50% of cover is dead; dry grass (mowed).

Vegetation Criterion Met? No

SOILS Mapped Unit Name: Bashaw clay
 Drainage Class: poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-6"	10YR4/3		Silt loam
	6-16"	10YR4/3		Silt loam

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? No

HYDROLOGY

Depth of inundation: N/A Depth to water table: >16" Depth to saturation: >16"

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
- Water-stained leaves
- Recorded data (aerials, groundwater data)
- Local soil survey data
- FAC-Neutral test
- Explain:
- Other
- Explain:

Hydrology Criterion Met? No

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 08/04/98	Investigator(s): JG/ES
Project Name: City of Woodburn	
Wetland Code: MC-07	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: A	Q1: C	Q1: C	Q1: A	Q1: A	Q1: A
Q2: C	Q2: C	Q2: C	Q2: B	Q2: B	Q2: B
Q3: C	Q3: C	Q3: C	Q3: C	Q3: B	Q3: C
Q4: A	Q4: A	Q4: B	Q4: B	Q4: A	Q4: A
Q5: A	Q5: C	Q5: C	Q5: A	Q5: C	Q5: A
Q6: A	Q6: C	Q6: C	Q6: C	Q6: A	Q6: B
Q7: A				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: B	Q1: A	Q1: C
Q2: A	Q2: A	Q2: C	Q2: B
Q3: C	Q3: B	Q3: C	Q3: C
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: A	Q5: B	Q5: B
Q5b: B	Q6: B	Q6: B	Q6: B
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	The wetland's fish habitat function is impacted or degraded.
Fish Habitat - Lakes/Ponds:	The wetland's fish habitat function is impacted or degraded.
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland has potential for educational use.
Recreation:	The wetland has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-07

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	Two or more Cowardin wetland classes. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is impacted or degraded.	Less than 50% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. No fish species present during the year.
<i>Fish Habitat - Lakes/Ponds</i>	The wetland's fish habitat function is impacted or degraded.	Less than 50% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. One or more upstream reaches are listed moderate water quality. Residential/Industrial land use within 500 feet of wetland edge. No fish species present during the year.
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Surface flow (including streams and ditches) is wetland's primary source of water. Unable to determine evidence of flooding or ponding during the growing season (or unapplicable). Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Unable to determine evidence of flooding or ponding during the growing season (or not applicable). Area is between 0.5 and 5 acres. Waterflow out of wetland is restricted or no outlet. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.

Sensitivity to Impact

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-07

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is restricted and cannot be restored. Wetland's area is between 0.5 and 5 acres. Between 10 and 40 % of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation, but allowed only with permission. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is a maintained public access point within 250 feet of the wetland's edge. Access is not available for limited mobility.
<i>Recreation</i>	The wetland has the potential to provide recreational opportunities.	There is a maintained public access point within 250 feet of wetland's edge. Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing area(s). General appearance of wetland has visual

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-07

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. At certain times, unpleasant odors are present at the primary viewing location. Continuous traffic and other intrusive noise and natural sounds are audible at primary viewing location.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-07

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn Local Wetland Significance Assessment

WetlandCode: MC-07

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- No** water quality,
- Yes** hydrologic control.

No Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-08 a-j

Investigator(s): CM/DG/JG/ES

Size (acres): 16.25

Location

Legal: T5S R1W S8 & S5

200, 300, 400, 600, 700, 1200,

Other: NW of intersec. of Front & Hwy 214, E of golf cour

1300, 1400, 1600, 3000, 310

Basin: Mill Creek

Soils

Mapped Series: Ba, La, Da

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM, PSS, PFO, RUB

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

This wetland is a broad drainage swale with Mill Creek located in an incised channel that is up to 200 feet wide in some portions. Wetland codes 8 a-d are along Mill Creek. The wetland vegetation consists of a monoculture of reed canarygrass (*Phalaris arundinaceae*) that is occasionally mowed. The mowing keeps shrub species from becoming established and allows pedestrians to have easy foot access to the portions that are on public property. There is a small patch of cattail (*Typha latifolia*) in the northern portion with forested/scrub/shrub areas near the southeast corner of the golf course. Dominant species in the forested/scrub/shrub areas are Oregon ash (*Fraxinus latifolia*), black cottonwood (*Populus balsamifera*), pacific willow (*Salix lasiandra*) and Scouler's willow (*Salix scouleriana*). The soil has a high clay content so percolation of water is very slow and it tends to pond during the wet season. The reed canarygrass contributes to the removal of sediment and other impurities from runoff water but decreases the diversity of the plant community and diminishes the value of the wetland as wildlife habitat. Wetland extends into Tukwila golf course bordering fairways in the middle portion of course. MC-8b was previously delineated (DSL 97-0318). Wetland sections 8 E-J are on the golf course, in a drainage swale that flows into Mill Creek. 8J is a water hazard on the golf course, at the top of the drainage. It was excavated in hydric soil. The remaining segments are emergent, scrub-shrub, and forested wetlands that connect 8J with the wetland sections along Mill Creek.

Wetland Classification Codes:

PFO = palustrine forested

PSS = palustrine scrub-shrub

RSB = riverine streambed (intermittent)

PEM = palustrine emergent

POW = palustrine open water

RUB = riverine unconsolidated bottom

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-08 Plot: 12
 T 5S R 1W S 8 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Drainage swale to the east of Woodburn HS; NW of intersection of Front St. and Hwy 214.
 Project #: 2981036 Determined by: CM, DG Date: 7/22/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? **Yes**

Are Soils Vegetation Hydrology significantly disturbed? **No**

VEGETATION Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:	100	Shrub/Sapling Stratum - % total cover: 0
<i>Phalaris arundinacea</i>	FACW 100	
Woody Vine Stratum - % total cover:	0	Tree Stratum - % total cover: 0

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1 of 1 = 100 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw clay
 Drainage Class: poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-18	10 YR 3/2	mottles many, medium, 7.5 YR 4/4	clayey, silt loam

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input checked="" type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >18" Depth to saturation: >18"

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
- Water-stained leaves
- Recorded data (aerials, groundwater data)
- Local soil survey data
- FAC-Neutral test
- Other

Remarks: Soil profile is moist.

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-08 Plot: 13
 T 5S R 1W S 8 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Upslope on west side of drainage swale located E of HS; NW of intersection of Front St. and Hwy 214.
 Project #: 2981036 Determined by: CM, DG Date: 7/22/98

DETERMINATION: IS THIS PLOT IN A WETLAND?: No

Do Normal Circumstances exist on the site? Yes
 Are Soils Vegetation Hydrology significantly disturbed? No

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:		120	Shrub/Sapling Stratum - % total cover: 0
<i>Holcus lanatus</i>	FAC	30	
<i>Festuca arundinacea</i>	FAC-	30	
<i>Poa pratensis</i>	FAC	20	
<i>Trifolium repens</i>	FAC	20	
<i>Hypochaeris radicata</i>	FACU	10	
<i>Rumex acetosella</i>	FACU	5	
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover: 0

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 3 of 4 = 75 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw clay
 Drainage Class: Poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-6	10 YR 3/3		Silt loam
	6+	N/A		N/A

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Remarks: Soil very hard. Could not dig below 6".

Soil Criterion Met? No

HYDROLOGY

Depth of inundation: N/A Depth to water table: >18" Depth to saturation: >18"

- | | |
|---|--|
| Primary Indicators: | Secondary Indicators (2 or more required): |
| <input type="checkbox"/> Inundated | <input type="checkbox"/> Oxidized rhizospheres |
| <input type="checkbox"/> Saturated in upper 12" | <input type="checkbox"/> Water-stained leaves |
| <input type="checkbox"/> Water marks | <input type="checkbox"/> Recorded data (aerials, groundwater data) |
| <input type="checkbox"/> Drift lines | Explain: |
| <input type="checkbox"/> Sediment deposits | <input type="checkbox"/> Other |
| <input type="checkbox"/> Drainage patterns | Explain: |
| | <input type="checkbox"/> Local soil survey data |
| | <input type="checkbox"/> FAC-Neutral test |

Hydrology Criterion Met? No

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-08 Plot: 17
 T 5S R 1W S 8 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Slight slope, SE area of Tukwila Golf Course
 Project #: 2981036 Determined by: DC/JG Date: 9/1/98

DETERMINATION: IS THIS PLOT IN A WETLAND?: No

Comments: North edge of wetland that runs in a swale east to west across golf course 40 feet from hazlenut orchard.

Do Normal Circumstances exist on the site?	Yes
Are Soils <input type="checkbox"/> Vegetation <input type="checkbox"/> Hydrology <input type="checkbox"/> significantly disturbed?	No

VEGETATION Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:	100	Shrub/Sapling Stratum - % total cover:
<i>Holcus lanatus</i>	FAC 75	0
<i>Cirsium arvense</i>	FACU 15	
<i>Phalaris arundinacea</i>	FACW 5	
<i>Equisetum arvense</i>	FAC 5	
Woody Vine Stratum - % total cover:	0	Tree Stratum - % total cover:
		0

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 5 of 5 = 100 % (50/20 Rule)

Remarks: Golf greens within 50 feet.

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bawshaw clay
 Drainage Class: poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-9"	10YR 3/3		silt loam
	9-16"+	10YR 4/3	mottles few, faint	silt loam

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? No

HYDROLOGY

Depth of inundation: N/A Depth to water table: >16' Depth to saturation: >16"

- | | | |
|---|--|--|
| Primary Indicators:
<input type="checkbox"/> Inundated
<input type="checkbox"/> Saturated in upper 12"
<input type="checkbox"/> Water marks
<input type="checkbox"/> Drift lines
<input type="checkbox"/> Sediment deposits
<input type="checkbox"/> Drainage patterns | Secondary Indicators (2 or more required):
<input type="checkbox"/> Oxidized rhizospheres
<input type="checkbox"/> Water-stained leaves
<input type="checkbox"/> Recorded data (aerials, groundwater data)
Explain:
<input type="checkbox"/> Other
Explain: | <input type="checkbox"/> Local soil survey data
<input type="checkbox"/> FAC-Neutral test |
|---|--|--|

Hydrology Criterion Met? No

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-08 Plot: 18
 T 5S R 1W S 8 City: Woodburn County: Marion State: OR
 Plot Location; Topography: In swale in SE area of Tukwila golf Course.
 Project #: 2981036 Determined by: DC/JG Date: 9/1/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Comments: Mostly emergent with some shrubs and trees.

Do Normal Circumstances exist on the site? **Yes**

Are Soils Vegetation Hydrology significantly disturbed? **No**

VEGETATION	Dominant Plant Species	Ind. %Cover:		Ind. %Cover:
Herb Stratum - % total cover:		75	Shrub/Sapling Stratum - % total cover:	15
<i>Phalaris arundinacea</i>	FACW	100	<i>Salix scouleriana</i>	FAC 60
<i>Solanum dulcamara</i>	FAC+	20	<i>Rosa pisocarpa</i>	FAC 40
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover:	10
			<i>Fraxinus latifolia</i>	FACW 100

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 5 of 5 = 100 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw clay
 Drainage Class: poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-7"	10 YR3/1		silt loam
	7-16"	10 YR2/1	small concretions	clayey silt

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input checked="" type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >16" Depth to saturation: 12"

- | | |
|---|--|
| Primary Indicators: | Secondary Indicators (2 or more required): |
| <input type="checkbox"/> Inundated | <input type="checkbox"/> Oxidized rhizospheres |
| <input type="checkbox"/> Saturated in upper 12" | <input type="checkbox"/> Water-stained leaves |
| <input type="checkbox"/> Water marks | <input type="checkbox"/> Recorded data (aerials, groundwater data) |
| <input type="checkbox"/> Drift lines | Explain: |
| <input type="checkbox"/> Sediment deposits | <input type="checkbox"/> Other |
| <input type="checkbox"/> Drainage patterns | Explain: |

Remarks: Water on ped faces at 12".

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-08 Plot: 19
 T 5S R 1W S 8 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Swale, fairway #7.
 Project #: 2981036 Determined by: DC/JG Date: 9/1/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? **Yes**

Are Soils Vegetation Hydrology significantly disturbed? **No**

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:		
Herb Stratum - % total cover:		60	Shrub/Sapling Stratum - % total cover:		80
	<i>Lysichitum americanum</i>	OBL 30		<i>Salix scouleriana</i>	FAC 100
	<i>Carex obnupta</i>	OBL 30			
	<i>Phalaris arundinacea</i>	FACW 20			
	<i>Glyceria elata</i>	FACW 20			
Woody Vine Stratum - % total cover:		30	Tree Stratum - % total cover:		20
	<i>Solanum dulcamara</i>	FAC+ 70		<i>Salix scouleriana</i>	FAC 70
	<i>Rubus discolor</i>	FACU 30		<i>Fraxinus latifolia</i>	FACW 30

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 8 of 9 = 89 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw Clay
 Drainage Class: poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-13"	10 YR2/1		organic silty clay loam
	13-16"	3 10GY		clay

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: surface Depth to water table: 1" Depth to saturation: 0"

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
- Water-stained leaves
- Recorded data (aerials, groundwater data)
- Local soil survey data
- FAC-Neutral test

Explain:
 Other
 Explain:

Hydrology Criterion Met? Yes

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 08/04/98	Investigator(s): JG/ES
Project Name: City of Woodburn	
Wetland Code: MC-08 a-j	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: A	Q1: C	Q1: A	Q1: A	Q1: A	Q1: A
Q2: B	Q2: C	Q2: C	Q2: A	Q2: A	Q2: B
Q3: C	Q3: C	Q3: C	Q3: A	Q3: A	Q3: A
Q4: A	Q4: B	Q4: A	Q4: A	Q4: C	Q4: A
Q5: A	Q5: C	Q5: C	Q5: A	Q5: B	Q5: A
Q6: A	Q6: A	Q6: C	Q6: A	Q6: A	Q6: C
Q7: B				Q7: A	
Q8: C					
Q9a:					
Q9b: A					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: B	Q1: B
Q2: A	Q2: A	Q2: C	Q2: B
Q3: A	Q3: B	Q3: C	Q3: A
Q4: A	Q4: A	Q4: B	Q4: A
Q5a:	Q5: B	Q5: B	Q5: A
Q5b: A	Q6: B	Q6: B	Q6: B
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	The wetland's fish habitat function is impacted or degraded.
Fish Habitat - Lakes/Ponds:	The wetland's fish habitat function is impacted or degraded.
Water Quality:	The wetland's water quality function is intact.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland has educational uses.
Recreation:	The wetland has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-08 a-j

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	Two or more Cowardin wetland classes. Emergent veg. & ponding or open water only. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. One or more upstream reaches are listed moderate water quality. Residential/Industrial land use within 500 feet of wetland edge. More than 40% of wetland edge bordered by veg. buffer 25 or more feet wide.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is impacted or degraded.	Less than 50% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. One or more upstream reaches are listed moderate water quality. Residential/Industrial land use within 500 feet of wetland edge. Salmon, trout, or sensitive species present sometime during the year.
<i>Fish Habitat - Lakes/Ponds</i>	The wetland's fish habitat function is impacted or degraded.	More than 75% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. No fish species present during the year.
<i>Water Quality</i>	The wetland's water quality function is intact.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. High (>60%) degree of wetland vegetation cover. More than 5 acres of wetland area. Residential/Industrial land use within 500 feet of wetland edge. One or more upstream reaches are listed water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is more than 5 acres. Waterflow out of wetland is unrestricted. Emergent veg. and ponding, or open water only is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.

Sensitivity to Impact

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-08 a-j

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. One or more upstream reaches listed as water quality limited in watershed or adjacent to the wetland. Residential/industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. and ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is more than 5 acres. More than 40% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has educational uses.	Wetland site is open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is existing physical public access to other features or it can be created easily and other habitats can be observed from this site. There is an unmaintained access point within 250 feet of the wetland's edge. Access is not available for limited mobility.
<i>Recreation</i>	The wetland has the potential to provide recreational opportunities.	There is an unmaintained public access point within 250 feet of the wetland's edge. Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	Two Cowardin classes are visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-08 a-j

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is open or naturally landscaped. Natural, pleasant odors are present at primary viewing location. Continuous traffic and other intrusive noise and natural sounds are audible at primary viewing location.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-08

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

**Woodburn
Local Wetland Significance Assessment**

WetlandCode: MC-08

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- Yes** water quality,
- Yes** hydrologic control.

Yes Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 09/15/98

Wetland Mapping Code: MC-09

Investigator(s): JG/ES

Size (acres): 0.35

Location

Legal: T5S R2W S13

500, 11800, 11900

Other: S of Parr Rd.; W of Boone's Ferry Rd.

Basin: Mill Creek

Soils

Mapped Series: Am

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PFO

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. This linear site follows the west side of RR tracks in a drainage ditch. This site has a low number of vegetation species. The cottonwood trees (*Populus balsamifera*) on the site are large, mature specimens. Soil is somewhat poorly drained.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	07/22/98	Investigator(s):	JG/ES
Project Name:	City of Woodburn		
Wetland Code:	MC-09	Project Number:	2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: C	Q1:	Q1:	Q1: A	Q1: B	Q1: A
Q2: A	Q2:	Q2:	Q2: A	Q2: A	Q2: B
Q3: C	Q3:	Q3:	Q3: A	Q3: B	Q3: C
Q4: C	Q4:	Q4:	Q4: B	Q4: C	Q4: B
Q5: B	Q5:	Q5:	Q5: B	Q5: A	Q5: A
Q6: A	Q6:	Q6:	Q6: C	Q6: B	Q6: A
Q7: A				Q7: A	
Q8: B					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: C	Q1: C
Q2: A	Q2: B	Q2: C	Q2: A
Q3: A	Q3: B	Q3: C	Q3: C
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: B
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is intact.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland has potential for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational opport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

Wetland Code: MC-09

Project Number: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Woody vegetation is dominant vegetation cover. Low degree of Cowardin class interspersion. Less than 0.5 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland connected to other wetlands within a 3 mile radius. Upstream not listed as water quality limited. Agricultural land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is intact.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. High (>60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Agricultural land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is unrestricted. Woody vegetation is dominant cover type. Agricultural land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Agricultural land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Woody vegetation is the dominant cover.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-09

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation. One to two visible safety hazards exist at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). More than 50% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. At certain times, unpleasant odors are present at the primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-09

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn Local Wetland Significance Assessment

WetlandCode: MC-09

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- Yes** water quality,
- No** hydrologic control.

No Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 09/15/98

Wetland Mapping Code: MC-10

Investigator(s): JG/ES

Size (acres): 0.29

Location

Legal: T5S R2W S13

1200

Other: SW of Settlemier and RR crossing

Basin: Mill Creek

Soils

Mapped Series: Am

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. Aerial photo seems to indicate earlier season ponding. Currently dry, with visually distinct vegetation in the mapped area. Amity silt loam has hydric inclusions of Concord silt loam.

Wetland Classification Codes:

PFO = palustrine forested

PSS = palustrine scrub-shrub

RSB = riverine streambed (intermittent)

PEM = palustrine emergent

POW = palustrine open water

RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	09/15/98	Investigator(s):	JG/ES
Project Name:	City of Woodburn		
Wetland Code:	MC-10	Project Number:	2981036

	Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1:	C	Q1:	Q1:	Q1: B	Q1: B	Q1: A
Q2:	B	Q2:	Q2:	Q2: B	Q2: B	Q2: A
Q3:	C	Q3:	Q3:	Q3: C	Q3: B	Q3: C
Q4:	C	Q4:	Q4:	Q4: B	Q4: C	Q4: B
Q5:	B	Q5:	Q5:	Q5: B	Q5: B	Q5: B
Q6:	B	Q6:	Q6:	Q6: C	Q6: B	Q6: C
Q7:	A				Q7: A	
Q8:	B					
Q9a:						
Q9b:	C					

	Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1:	B	Q1: C	Q1: C	Q1: C
Q2:	C	Q2: A	Q2: C	Q2: C
Q3:		Q3: B	Q3: C	Q3: C
Q4:	B	Q4: C	Q4: B	Q4: B
Q5a:		Q5: C	Q5: B	Q5: B
Q5b:	C	Q6: B	Q6: B	Q6: A
Q6:	B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational opport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-10	ProjectNumber: 2981036
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Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Emergent veg. & ponding or open water only. Low degree of Cowardin class interspersation. Less than 0.5 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland not connected to other wetlands, but within 3 mile radius of other wetlands. Upstream not listed as water quality limited. Agricultural land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Precipitation or sheet flow is wetland's primary source of water. Unable to determine evidence of flooding or ponding during the growing season (or unapplicable). Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Agricultural land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. Unable to determine evidence of flooding or ponding during the growing season (or not applicable). Area is between 0.5 and 5 acres. Waterflow out of wetland is unrestricted. Emergent veg. and ponding, or open water only is dominant cover type. Agricultural land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is being taken out of stream(s) through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Agricultural land use within 500 feet of wetland's edge. Dominant Agricultural land use within 500 feet of wetland's edge. Emergent veg. and ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-10

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is precipitation or sheet flow. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland site is not appropriate for educational use.	Wetland site is not open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Less than 25% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. At certain times, unpleasant odors are present at the primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-10

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn Local Wetland Significance Assessment

WetlandCode: MC-10

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

B. "IN"

No Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- No** water quality,
- No** hydrologic control.

No Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 09/15/98

Wetland Mapping Code: MC-11

Investigator(s): JG/ES

Size (acres): 3.32

Location

Legal: T5S R1W S18

1200, 1300, 1400, 1401, 8600,
8800, 8900

Other: E of Boone's Ferry; S of Parr Rd.

Basin: Mill Creek

Soils

Mapped Series: Am, Da

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PSS

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. Site is composed of two section. One section is located east of Boones Ferry Road consisting of an elongated strip through agricultural fields, with areas of bare ground or patchy vegetation. This area may pond earlier in the season. The second area is a wedge shaped parcel dominated by shrubs, located where the Southern Pacific Railroad and Boones Ferry Road cross. Soil is hydric.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	09/15/98	Investigator(s):	JG/ES
Project Name:	City of Woodburn		
Wetland Code:	MC-11	Project Number:	2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: A	Q1:	Q1:	Q1: B	Q1: B	Q1:
Q2: C	Q2:	Q2:	Q2: A	Q2: A	Q2: A
Q3: C	Q3:	Q3:	Q3: C	Q3: B	Q3: C
Q4: A	Q4:	Q4:	Q4: B	Q4: C	Q4: A
Q5: B	Q5:	Q5:	Q5: A	Q5: C	Q5: A
Q6: A	Q6:	Q6:	Q6: C	Q6: A	Q6: B
Q7: A				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: C	Q1: C	Q1: C
Q2: C	Q2: A	Q2: C	Q2: B
Q3:	Q3: B	Q3: C	Q3: A
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational opportunity.
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-11

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	Two or more Cowardin wetland classes. Emergent veg. or wet meadow. Low degree of Cowardin class interspersation. More than 1 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland connected to other wetlands within a 3 mile radius. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Precipitation or sheet flow is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is unrestricted. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Water is being taken out of stream(s) through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/Industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-11

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		precipitation or sheet flow. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland site is not appropriate for educational use.	Wetland site is not open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-11

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

**Woodburn
Local Wetland Significance Assessment**

WetlandCode: MC-11

A. "OUT" Test

- No** Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:
- (a) created for the purpose of controlling, storing, or maintaining stormwater;
 - (b) active surface mining ponds;
 - (c) ditches without free and open connection to waters of the state AND without fish;
 - (d) <1 acre and unintentionally created from irrigation leak or construction activity;
 - (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

B. "IN"

- No** Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:
- No** wildlife habitat,
 - No** fish habitat,
 - No** water quality,
 - No** hydrologic control.
- No** Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.
- No** Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.
- No** Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).
- No** Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."
- No** OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.
- No** OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-12

Investigator(s): JG/ES

Size (acres): 0.17

Location

Legal: T5S R2W S13

700

Other: S of Parr; W. Central side of Centennial Park

Basin: Mill Creek

Soils

Mapped Series: WuA; and possibly Co

Hydrology

Hydrologic Source: Precipitation

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Populus balsamifera

Phalaris arundinacea

Eleocharis palustris

Carex unilateralis

Comments:

This site consists of an excavated depression in an agricultural field. The area is approximately 60'x60', and 3' deep. Bare ground inside the depression shows evidence of water ponding earlier in the season (sediment crust layer and cracked earth). Vegetation is more dense around the margin. Black cottonwood (*Populus balsamifera*) and patchy herbaceous species are located in the center of the depression. The lack of soil indicators is considered a result of excavation. WuA has hydric inclusions of somewhat poorly drained soil; Co is hydric.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)

PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-12 Plot: 5
 T 5S R 2W S 13 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Centennial Park parcel; in an excavated depression.
 Project #: 2981036 Determined by: JG/ES Date: 7/22/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Comments: Considered wetland on the basis of vegetation and hydrology. Lack of soil indicators considered a result of excavation.

Do Normal Circumstances exist on the site? Yes

Explanation: Site is an excavated depression.

Are Soils Vegetation Hydrology significantly disturbed? No

Explanation: Area is excavated to approximately 3' deep.

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:		50	Shrub/Sapling Stratum - % total cover:
<i>Phalaris arundinacea</i>	FACW	50	<i>Populus balsamifera</i>
<i>Eleocharis palustris</i>	OBL	5	FAC
<i>Carex unilateralis</i>	FACW	5	
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover:
			0

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2 of 2 = 100 % (50/20 Rule)

Remarks: Populous balsamifera. patch in middle of ag. field; much bare soil.

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Woodburn silt loam (WuA)
 Drainage Class: Moderately well drained
 Taxonomy: fine-silty, mixed, mesic Aquultic Argixerolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-16"	5 Y 4	few, fine, faint	fine silt loam
	6-16"	2.5 Y 5/3		silt loam

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input type="checkbox"/> On hydric soils list |

Remarks: Excavated area, 60' x 60' (est). 3' deep.

Soil Criterion Met? No

HYDROLOGY

Depth of inundation: N/A Depth to water table: >16" Depth to saturation: >16"

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
- Water-stained leaves
- Recorded data (aerials, groundwater data)
- Local soil survey data
- FAC-Neutral test
- Explain:
- Other
- Explain:

Remarks: Sediment crust layer on the surface of the depression, and cracked soil. Area probably experienced ponding earlier in the year.

Hydrology Criterion Met? Yes

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	07/22/98	Investigator(s):	JG/ES
Project Name:	City of Woodburn		
WetlandCode:	MC-12	ProjectNumber:	2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: C	Q1:	Q1:	Q1: B	Q1: B	Q1: A
Q2: A	Q2:	Q2:	Q2: A	Q2: A	Q2: B
Q3: C	Q3:	Q3:	Q3: A	Q3: B	Q3: C
Q4: B	Q4:	Q4:	Q4: B	Q4: A	Q4: A
Q5: B	Q5:	Q5:	Q5: A	Q5: A	Q5: A
Q6: B	Q6:	Q6:	Q6: C	Q6: A	Q6: A
Q7: A				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: B	Q1: C	Q1: C
Q2: C	Q2: B	Q2: C	Q2: A
Q3:	Q3: B	Q3: C	Q3: B
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is intact.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland has potential for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational oport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-12	ProjectNumber: 2981036
---------------------------	-------------------------------

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Woody vegetation is dominant vegetation cover. Low degree of Cowardin class interspersion. Between 0.5 and 1 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland not connected to other wetlands, but within 3 mile radius of other wetlands. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is intact.	Precipitation or sheet flow is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. High (>60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	No part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is restricted or no outlet. Woody vegetation is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/Industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Woody vegetation is the dominant cover.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-12

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		Wetland's primary source of water is precipitation or sheet flow. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation, but allowed only with permission. One to two visible safety hazards exist at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). More than 50% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors, which can be removed easily. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-12

Question 1 **B**

List:

Question 2 **B**

List:

Question 3 **B**

List:

Question 4 **B**

List:

Question 5 **B**

Question 6 **B**

Question 7 **B**

List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn Local Wetland Significance Assessment

WetlandCode: MC-12

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

B. "IN"

No Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- No** water quality,
- No** hydrologic control.

No Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-13

Investigator(s): JG/ES

Size (acres): 0.43

Location

Legal: T5S R2W S13

500

Other: Vallor/Heritage School property

Basin: Mill Creek

Soils

Mapped Series: Co, WuA

Hydrology

Hydrologic Source: Precipitation

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

This site is located in the southwest corner of the Vallor/Heritage School property south of Parr Rd. It is an area of recent ponding, 90 percent unvegetated, and surrounded by a rye grass field. Co is hydric soil; WuA has hydric inclusions of somewhat poorly drained soil.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)

PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-13 Plot: 6
 T 5S R 2W S 13 City: Woodburn County: Marion State: OR
 Plot Location; Topography: SW edge of field just south of Vallor/Heritage school; W of Boone's Ferry Road.
 Project #: 2981036 Determined by: JG/ES Date: 7/22/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Comments: Soil surface and lack of vegetation indicates vegetation stress due to ponding or saturation.

Do Normal Circumstances exist on the site? Yes

Are Soils Vegetation Hydrology significantly disturbed? Yes

Explanation: Site is surrounded by a cultivated field; vegetation lacking due to ponding.

VEGETATION Dominant Plant Species	Ind. %Cover:		Ind. %Cover:
Herb Stratum - % total cover:	0	Shrub/Sapling Stratum - % total cover:	0
Woody Vine Stratum - % total cover:	0	Tree Stratum - % total cover:	0

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 0 of 0 = 0 % (50/20 Rule)

Remarks: 90% unvegetated, surrounded by rye grass field.

Vegetation Criterion Met? No

SOILS Mapped Unit Name: Concord silt loam (Co) & Woodburn silt loam (WuA)
 Drainage Class: (Co) poorly drained, (WuA) moderately well drained
 Taxonomy: Fine, montmorillonitic, mesic Typic Ochraqualfs & fine-silty, mixed, mesic Aquultic

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-12"	10 YR 4/3	fine, common, moderately bright 10 YR 5/6	v. fine sandy loam
	12-16"	Gley 5 10 Y	medium, common mottles 10 YR 4/6	clay

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input checked="" type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input checked="" type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >16" Depth to saturation: >16"

- | | |
|---|--|
| Primary Indicators: | Secondary Indicators (2 or more required): |
| <input type="checkbox"/> Inundated | <input type="checkbox"/> Oxidized rhizospheres |
| <input type="checkbox"/> Saturated in upper 12" | <input type="checkbox"/> Water-stained leaves |
| <input type="checkbox"/> Water marks | <input type="checkbox"/> Recorded data (aerials, groundwater data) |
| <input type="checkbox"/> Drift lines | Explain: |
| <input type="checkbox"/> Sediment deposits | <input type="checkbox"/> Other |
| <input type="checkbox"/> Drainage patterns | Explain: |

Remarks: Dry, finely cracked surface. Area appears to experience ponding early in season.

Hydrology Criterion Met? Yes

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 07/22/98	Investigator(s): JG/ES
Project Name: City of Woodburn	
WetlandCode: MC-13	ProjectNumber: 2981036

	Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1:	C	Q1:	Q1:	Q1: B	Q1: B	Q1: A
Q2:	B	Q2:	Q2:	Q2: A	Q2: A	Q2: B
Q3:	C	Q3:	Q3:	Q3: C	Q3: B	Q3: C
Q4:	C	Q4:	Q4:	Q4: B	Q4: C	Q4: B
Q5:	B	Q5:	Q5:	Q5: B	Q5: B	Q5: A
Q6:	B	Q6:	Q6:	Q6: C	Q6: B	Q6: B
Q7:	A				Q7: B	
Q8:	B					
Q9a:						
Q9b:	C					

	Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1:	B	Q1: B	Q1: C	Q1: C
Q2:	C	Q2: A	Q2: C	Q2: A
Q3:		Q3: B	Q3: C	Q3: A
Q4:	B	Q4: C	Q4: B	Q4: B
Q5a:		Q5: C	Q5: B	Q5: A
Q5b:	C	Q6: B	Q6: B	Q6: A
Q6:	B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland has potential for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational oport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-13	ProjectNumber: 2981036
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Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Emergent veg. & ponding or open water only. Low degree of Cowardin class interspersion. Less than 0.5 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland not connected to other wetlands, but within 3 mile radius of other wetlands. Upstream not listed as water quality limited. Agricultural land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Precipitation or sheet flow is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Agricultural land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is unrestricted. Emergent veg. and ponding , or open water only is dominant cover type. Agricultural land use within 500 ft of wetland on downstream or down-slope edge of wetland. Agricultural land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Agricultural land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-13	ProjectNumber: 2981036
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Function	Evaluation Descriptor	Rationale
		Wetland's primary source of water is precipitation or sheet flow. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation, but allowed only with permission. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). More than 50% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-13

Question 1 **B**

List:

Question 2 **B**

List:

Question 3 **B**

List:

Question 4 **B**

List:

Question 5 **B**

Question 6 **B**

Question 7 **B**

List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

**Woodburn
Local Wetland Significance Assessment**

WetlandCode: MC-13

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

B. "IN"

No Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- No** water quality,
- No** hydrologic control.

No Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-14

Investigator(s): JG/ES

Size (acres): 0.06

Location

Legal: T5S R2W S13

500

Other: S of Parr Rd., at Vallor/Heritage School

Basin: Mill Creek

Soils

Mapped Series: WuA

Hydrology

Hydrologic Source: Precipitation; stormwater runoff

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Cornus sericea

Salix sp.

Epilobium angustifolium

Parentucellia viscosa

Phalaris arundinacea

Comments:

OFFSITE DETERMINATION. This site appears to be a storm water detention pond. Vegetation is growing on the sloping sides of the depression, with some standing water at the bottom present as of the site investigation date in July 1998.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)

PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-14

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

**Woodburn
Local Wetland Significance Assessment**

WetlandCode: MC-14

A. "OUT" Test

Yes Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-15a,b

Investigator(s): JG/ES

Size (acres): 0.55

Location

Legal: T5S R2W S13

100, 4000, 4100, 4200, 4600, 5900

Other: N & E of intersection of Parr Rd/Stubb Rd

Basin: Mill Creek

Soils

Mapped Series: Ba, Co, Da

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. This site is composed of two sections. MC-15a consists of a small emergent wetland located approximately 200' north of Parr Rd., bordering Stubb Rd. on its east side. The emergent wetland is connected to what appears to be a natural drainage line following a subtle swale (about 2200 feet) to the northeast (this feature is more apparent on the aerial photo than in the field). West of Smith Dr. and McLaughlin Dr. the intermittent stream/drainage turns, flowing to the east along the south side of the residential properties that border Smith Dr. The drainage enters a culvert approximately 300' east of the west end of Santiam Dr. MC-15b is a drainage running southwest to northeast between Ben Brown Ln. (425' west of Settlemier Ave.) and Settlemier Ave. (100' south of Cherry St.). MC-15c enters culverts at its eastern end.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	09/15/98	Investigator(s):	JG
Project Name:	City of Woodburn		
WetlandCode:	MC-15	ProjectNumber:	2981036

	Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1:	C	Q1:	Q1:	Q1: A	Q1: B	Q1: A
Q2:	C	Q2:	Q2:	Q2: A	Q2: A	Q2: B
Q3:	C	Q3:	Q3:	Q3: C	Q3: B	Q3: C
Q4:	A	Q4:	Q4:	Q4: B	Q4: C	Q4: B
Q5:	B	Q5:	Q5:	Q5: B	Q5: C	Q5: A
Q6:	B	Q6:	Q6:	Q6: C	Q6: B	Q6: B
Q7:	A				Q7: B	
Q8:	B					
Q9a:						
Q9b:	C					

	Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1:	B	Q1: C	Q1: C	Q1: C
Q2:	A	Q2: A	Q2: C	Q2: A
Q3:	A	Q3: B	Q3: C	Q3: A
Q4:	B	Q4: C	Q4: B	Q4: B
Q5a:		Q5: C	Q5: B	Q5: A
Q5b:	C	Q6: B	Q6: B	Q6: B
Q6:	B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational oport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-15

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland not connected to other wetlands, but within 3 mile radius of other wetlands. Upstream not listed as water quality limited. Agricultural land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Agricultural land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is unrestricted. Emergent veg. or wet meadow is dominant cover type. Agricultural land use within 500 ft of wetland on downstream or down-slope edge of wetland. Agricultural land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Agricultural land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-15

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland site is not appropriate for educational use.	Wetland site is not open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). More than 50% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Continuous traffic and other intrusive noise and natural sounds are audible at primary viewing location.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-15

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn Local Wetland Significance Assessment

WetlandCode: MC-15

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

B. "IN"

No Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat;
- No** fish habitat,
- No** water quality,
- No** hydrologic control.

No Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

1

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-16

Investigator(s): KC/PO

Size (acres): 0.96

Location

Legal: T5S R1W S18

100, 2200, 2900

Other: Cleveland & Brown W to Cleveland St. RR Xing

Basin: Mill Creek

Soils

Mapped Series: Ba

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Phalaris arundinacea

Myosotis laxa

Veronica americana

Dipsacus sylvestris

Epilobium watsonii

Lemna minor

Comments:

Ditch with very few plant species, bordered by mowed field nearly to top of bank. There was standing water in the ditch (late July). Lots of small duckweed (*Lemna minor*) in stream. Field bordered by roads on two sides, housing (ca 1960s) on third side.

Wetland Classification Codes:

PFO = palustrine forested

PSS = palustrine scrub-shrub

RSB = riverine streambed (intermittent)

PEM = palustrine emergent

POW = palustrine open water

RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	07/22/98	Investigator(s):	KC/PO
Project Name:	City of Woodburn		
Wetland Code:	MC-16	Project Number:	2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: C	Q1:	Q1:	Q1: A	Q1: A	Q1: A
Q2: C	Q2:	Q2:	Q2: A	Q2: A	Q2: B
Q3: C	Q3:	Q3:	Q3: A	Q3: B	Q3: A
Q4: B	Q4:	Q4:	Q4: B	Q4: B	Q4: A
Q5: A	Q5:	Q5:	Q5: A	Q5: C	Q5: A
Q6: A	Q6:	Q6:	Q6: A	Q6: A	Q6: C
Q7: C				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: C	Q1: C
Q2: A	Q2: A	Q2: C	Q2: B
Q3: C	Q3: B	Q3: C	Q3: C
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is intact.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland has potential for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational oppor
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-16

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. Between 0.5 and 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. One or more upstream reaches are listed water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is intact.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. High (>60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. One or more upstream reaches are listed water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Minor restrictions slow down waterflow out of the wetland. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. One or more upstream reaches listed as water quality limited in watershed or adjacent to the wetland. Residential/Industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. and ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	The wetland has little	Wetland has lost one or more functions or

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-16

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
	enhancement potential.	one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is restricted and cannot be restored. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-16

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

**Woodburn
Local Wetland Significance Assessment**

WetlandCode: MC-16

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

No wildlife habitat,

No fish habitat,

Yes water quality,

Yes hydrologic control.

No Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-17

Investigator(s): JG/ES

Size (acres): 0.91

Location

Legal: T5S R2W S12

100

Other: Field between Cascade Dr. and McLaughlin Dr.

Basin: Mill Creek

Soils

Mapped Series: Co

Hydrology

Hydrologic Source: Precipitation

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION- This site was identified by aerial photo and shows an area of recent ponding in a cultivated field. Vegetation appears to be lacking or very sparse in the mapped area, possibly due to ponding. Soil is hydric.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 09/15/98	Investigator(s): JG
Project Name: City of Woodburn	
Wetland Code: MC-17	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: C	Q1:	Q1:	Q1: B	Q1: B	Q1: A
Q2: C	Q2:	Q2:	Q2: A	Q2: A	Q2: B
Q3: C	Q3:	Q3:	Q3: C	Q3: B	Q3: C
Q4: B	Q4:	Q4:	Q4: B	Q4: C	Q4: B
Q5: C	Q5:	Q5:	Q5: B	Q5: C	Q5: A
Q6: B	Q6:	Q6:	Q6: C	Q6: B	Q6: B
Q7: A				Q7: A	
Q8: B					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: C	Q1: C	Q1: C
Q2: C	Q2: A	Q2: C	Q2: A
Q3: A	Q3: B	Q3: C	Q3: A
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational opport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-17

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. Between 0.5 and 1 acre of unvegetated open water present. Wetland not connected to another body of water, and no water within 1 mile. Wetland not connected to other wetlands, but within 3 mile radius of other wetlands. Upstream not listed as water quality limited. Agricultural land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Precipitation or sheet flow is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Agricultural land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is unrestricted. Emergent veg. or wet meadow is dominant cover type. Agricultural land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Agricultural land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-17

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		<p>Wetland's primary source of water is precipitation or sheet flow. Water flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.</p>
<i>Education</i>	<p>The wetland site is not appropriate for educational use.</p>	<p>Wetland site is not open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.</p>
<i>Recreation</i>	<p>The wetland is not appropriate for or does not provide recreational opportunities.</p>	<p>There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.</p>
<i>Aesthetic Quality</i>	<p>The wetland is considered to be moderately pleasing.</p>	<p>One Cowardin class is visible from primary viewing area(s). More than 50% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.</p>

Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: MC-17

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn Local Wetland Significance Assessment

WetlandCode: MC-17

A. "OUT" Test

- No** Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:
- (a) created for the purpose of controlling, storing, or maintaining stormwater;
 - (b) active surface mining ponds;
 - (c) ditches without free and open connection to waters of the state AND without fish;
 - (d) <1 acre and unintentionally created from irrigation leak or construction activity;
 - (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

B. "IN"

- No** Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:
- No** wildlife habitat,
 - No** fish habitat,
 - No** water quality,
 - No** hydrologic control.
- No** Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.
- No** Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.
- No** Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).
- No** Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."
- No** OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.
- No** OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-18

Investigator(s): JG/ES

Size (acres): 0.05

Location

Legal: T5S R2W S7

100, 4500, 4600, 4700, 13600

Other: S of Lincoln St. and N of West Hayes St.

Basin: Mill Creek

Soils

Mapped Series: Am

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Phalaris arundinacea

Comments:

This site consists of a drainage ditch approximately 6'-8' wide and 3' deep, dominated by reed canarygrass (*Phalaris arundinacea*). The ditch runs across undeveloped sections of four residential lots for approximately 375'. Vegetation has been mowed to the edges of both sides. Surface flow terminates in culverts at the eastern end of the ditch. The upper 16" of soil is gleyed, highly organic (0"-2") and gleyed with concretions and mottling (2"-16").

Wetland Classification Codes:

PFO = palustrine forested

PSS = palustrine scrub-shrub

RSB = riverine streambed (intermittent)

PEM = palustrine emergent

POW = palustrine open water

RUB = riverine unconsolidated bottom

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: MC-18 Plot: 7
 T 5S R 1W S 7 City: Woodburn County: Marion State: OR
 Plot Location; Topography: South of Lincoln St., north of W. Hayes St.
 Project #: 2981036 Determined by: JG/ES Date: 4/22/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? No

Explanation: Wetland isolated in channelized ditch through residential area.

Are Soils Vegetation Hydrology significantly disturbed? No

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:		100	Shrub/Sapling Stratum - % total cover: 0
<i>Phalaris arundinacea</i>	FACW	100	
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover: 0

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 1 of 1 = 100 % (50/20 Rule)

Remarks: Phalaris only within banks of ditch.

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Amity
 Drainage Class: somewhat poorly drained.
 Taxonomy: Fine-silty, mixed, mesic Argiaquic Xeric Argialbolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-2	10 YR 3/1	90% peaty material (dead reed canary grass)	silt loam
	2-6"	gley 1 3/10Y	concretions 2-3mm	clayey silt loam
	6-16"	gley 1 3/10Y	mottling 10 YR 5/4 distinct, common, med.	clayey silt loam

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input checked="" type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input checked="" type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: 12" Depth to saturation: 0"

- | | |
|--|--|
| Primary Indicators: | Secondary Indicators (2 or more required): |
| <input type="checkbox"/> Inundated | <input type="checkbox"/> Oxidized rhizospheres |
| <input checked="" type="checkbox"/> Saturated in upper 12" | <input type="checkbox"/> Water-stained leaves |
| <input type="checkbox"/> Water marks | <input type="checkbox"/> Recorded data (aerials, groundwater data) |
| <input type="checkbox"/> Drift lines | Explain: |
| <input type="checkbox"/> Sediment deposits | <input type="checkbox"/> Other |
| <input type="checkbox"/> Drainage patterns | Explain: |

Remarks: Saturated to surface. Pit was located at the bottom of 3' deep ditch.

Hydrology Criterion Met? Yes

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	07/22/98	Investigator(s):	JG/ES
Project Name:	City of Woodburn		
Wetland Code:	MC-18	Project Number:	2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: C	Q1:	Q1:	Q1: A	Q1: B	Q1: A
Q2: C	Q2:	Q2:	Q2: B	Q2: B	Q2: B
Q3: C	Q3:	Q3:	Q3: C	Q3: B	Q3: C
Q4: C	Q4:	Q4:	Q4: B	Q4: B	Q4: A
Q5: B	Q5:	Q5:	Q5: A	Q5: C	Q5: A
Q6: B	Q6:	Q6:	Q6: C	Q6: A	Q6: B
Q7: A				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: C	Q1: C	Q1: C
Q2: A	Q2: A	Q2: C	Q2: C
Q3: A	Q3: B	Q3: C	Q3: A
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational oppor
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-18	ProjectNumber: 2981036
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Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. Less than 0.5 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland not connected to other wetlands, but within 3 mile radius of other wetlands. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Surface flow (including streams and ditches) is wetland's primary source of water. Unable to determine evidence of flooding or ponding during the growing season (or unapplicable). Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. Unable to determine evidence of flooding or ponding during the growing season (or not applicable). Area is between 0.5 and 5 acres. Minor restrictions slow down waterflow out of the wetland. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>		

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-18

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland site is not appropriate for educational use.	Wetland site is not open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Less than 25% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-18

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn Local Wetland Significance Assessment

WetlandCode: MC-18

A. "OUT" Test

- No** Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:
- (a) created for the purpose of controlling, storing, or maintaining stormwater;
 - (b) active surface mining ponds;
 - (c) ditches without free and open connection to waters of the state AND without fish;
 - (d) <1 acre and unintentionally created from irrigation leak or construction activity;
 - (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

B. "IN"

- No** Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:
- No** wildlife habitat,
 - No** fish habitat,
 - No** water quality,
 - No** hydrologic control.
- No** Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.
- No** Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.
- No** Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).
- No** Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."
- No** OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.
- No** OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 08/04/98

Wetland Mapping Code: MC-19

Investigator(s): JG/ES

Size (acres): 3.96

Location

Legal: T5S R1W S4 & S5

3100, 3500, 3800

Other: At the NE end of Progress Way and 500' west of the NE corner of the Woodburn UGB

Basin: Mill Creek

Soils

Mapped Series: Am, Co, Da, WuA

Hydrology

Hydrologic Source: Surface flow & Groundwater

Wetland Classification(s): PSS & PEM

Dominant Vegetation

Trees	Shrubs	Vines	Herbs
<i>Fraxinus latifolia</i>	<i>Salix scouleriana</i> <i>Salix sitchensis</i> <i>Corylus cornuta</i>	<i>Rubus discolor</i>	<i>Phalaris arundinacea</i>

Comments:

OFFSITE DETERMINATION. Vegetation borders a ditch 6-7' deep, containing standing water. The ditch starts at a culvert approx. 200' SW of the end of Progress Way. The ditch follows a NE direction approximately 700' across open space/agricultural land. Willow (*Salix* sp.), hazlenut (*Corylus cornuta*), and blackberry (*Rubus discolor*), dominate the banks of the channel. Co is hydric; WuA and Am have hydric inclusions.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 08/04/98	Investigator(s): JG/ES
Project Name: City of Woodburn	
Wetland Code: MC-19	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: A	Q1: B	Q1:	Q1: A	Q1: B	Q1: A
Q2: A	Q2: C	Q2:	Q2: B	Q2: B	Q2: A
Q3: C	Q3: C	Q3:	Q3: A	Q3: B	Q3: A
Q4: A	Q4: A	Q4:	Q4: B	Q4: B	Q4: A
Q5: B	Q5: C	Q5:	Q5: A	Q5: A	Q5: A
Q6: A	Q6: C	Q6:	Q6: C	Q6: A	Q6: A
Q7: A				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: C	Q1: C	Q1: B
Q2: A	Q2: A	Q2: C	Q2: C
Q3: A	Q3: B	Q3: C	Q3: A
Q4: B	Q4: C	Q4: B	Q4: C
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: C			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	The wetland's fish habitat function is impacted or degraded.
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational oppport
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-19

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	Two or more Cowardin wetland classes. Woody vegetation is dominant vegetation cover. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland connected to other wetlands within a 3 mile radius. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is impacted or degraded.	Between 50 and 75% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. No fish species present during the year.
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Surface flow (including streams and ditches) is wetland's primary source of water. Unable to determine evidence of flooding or ponding during the growing season (or unapplicable). High (>60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. Unable to determine evidence of flooding or ponding during the growing season (or not applicable). Area is between 0.5 and 5 acres. Minor restrictions slow down waterflow out of the wetland. Woody vegetation is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is being taken out of stream(s) through active diking, drainage, or irrigation districts upstream. One or more upstream reaches listed as water quality limited in watershed or adjacent to the wetland. Residential/Industrial (developed) land use within 500 feet of

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-19

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Woody vegetation is the dominant cover.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is sensitive to future impacts.
<i>Education</i>	The wetland site is not appropriate for educational use.	Wetland site is not open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	Two Cowardin classes are visible from primary viewing area(s). Less than 25% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is developed with no landscaping. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-19

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn Local Wetland Significance Assessment

WetlandCode: MC-19

A. "OUT" Test

- No** Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:
- (a) created for the purpose of controlling, storing, or maintaining stormwater;
 - (b) active surface mining ponds;
 - (c) ditches without free and open connection to waters of the state AND without fish;
 - (d) <1 acre and unintentionally created from irrigation leak or construction activity;
 - (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

B. "IN"

- No** Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:
- No** wildlife habitat,
 - No** fish habitat,
 - No** water quality,
 - No** hydrologic control.
- No** Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.
- No** Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.
- No** Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).
- No** Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."
- No** OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.
- No** OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 08/04/98

Wetland Mapping Code: MC-20

Investigator(s): JG/ES

Size (acres): 1.61

Location

Legal: T5S R1W S8

300, 500

Other: SE of the Hwy 99E/Hwy 211 intersection

Basin: Mill Creek

Soils

Mapped Series: Am

Hydrology

Hydrologic Source: Unknown

Wetland Classification(s): PFO

Dominant Vegetation

Trees	Shrubs	Vines	Herbs
<i>Fraxinus latifolia</i>	<i>Salix scouleriana</i>	<i>Rubus discolor</i>	<i>Phalaris arundinacea</i>
	<i>Salix sitchensis</i>		
	<i>Corylus cornuta</i>		

Comments:

OFFSITE DETERMINATION. This site is located west of the drive-in theatre off Hwy. 211, and north of the Jehovah's Witnesses facility off Hwy. 99E. The site is a mature black cottonwood (*Populus balsamifera*) woodland. Surface hydrology entering the site is not obvious on the aerial photo. Lack of access prevented more detailed site information. Am has hydric inclusions.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	08/04/98	Investigator(s):	JG/ES
Project Name:	City of Woodburn		
Wetland Code:	MC-20	Project Number:	2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: C	Q1:	Q1:	Q1: C	Q1: B	Q1: A
Q2: A	Q2:	Q2:	Q2: B	Q2: B	Q2: A
Q3: C	Q3:	Q3:	Q3: C	Q3: B	Q3: C
Q4: A	Q4:	Q4:	Q4: B	Q4: C	Q4: A
Q5: B	Q5:	Q5:	Q5: A	Q5: A	Q5: A
Q6: B	Q6:	Q6:	Q6: C	Q6: A	Q6: A
Q7: A				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: C	Q1: C	Q1: C
Q2: B	Q2: A	Q2: C	Q2: C
Q3:	Q3: B	Q3: C	Q3: A
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational oppor
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-20

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Woody vegetation is dominant vegetation cover. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland not connected to other wetlands, but within 3 mile radius of other wetlands. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Groundwater (including seeps and springs) is wetland's primary source of water. Unable to determine evidence of flooding or ponding during the growing season (or unapplicable). Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. Unable to determine evidence of flooding or ponding during the growing season (or not applicable). Area is between 0.5 and 5 acres. Waterflow out of wetland is unrestricted. Woody vegetation is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is being taken out of stream(s) through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/Industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Woody vegetation is the dominant cover.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-20

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is groundwater, including springs and seeps. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland site is not appropriate for educational use.	Wetland site is not open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Less than 25% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-20

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn Local Wetland Significance Assessment

WetlandCode: MC-20

A. "OUT" Test

- No** Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:
- (a) created for the purpose of controlling, storing, or maintaining stormwater;
 - (b) active surface mining ponds;
 - (c) ditches without free and open connection to waters of the state AND without fish;
 - (d) <1 acre and unintentionally created from irrigation leak or construction activity;
 - (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

B. "IN"

- No** Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:
- No** wildlife habitat,
 - No** fish habitat,
 - No** water quality,
 - No** hydrologic control.
- No** Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.
- No** Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.
- No** Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).
- No** Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."
- No** OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.
- No** OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 09/15/98

Wetland Mapping Code: MC-21, 22, 23, 25, 26

Investigator(s): JG/DC

Size (acres): 4.69

Location

Legal: T5S R1W S6 &7

400, 2700, 3100, 3200

Other: Tukwila golf course, Boone's Ferry Rd.

Basin: Mill Creek

Soils

Mapped Series: Da, WuA, WuD

Hydrology

Hydrologic Source: Surface flow, maintained by pumping in dry season

Wetland Classification(s): POW

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

Water hazards located in Tukwila golf course. Sizes range from .1 acre to .25 acre. Small bands of cattail (*Typha latifolia*) ringed the edges of most.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	09/15/98	Investigator(s):	JG/DC
Project Name:	City of Woodburn		
Wetland Code:	MC-21, 22, 23, 25, 26	Project Number:	2981036

	Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1:	C	Q1:	Q1: A	Q1: A	Q1: B	Q1: A
Q2:	B	Q2:	Q2: C	Q2: A	Q2: A	Q2: B
Q3:	C	Q3:	Q3: C	Q3: C	Q3: B	Q3: C
Q4:	A	Q4:	Q4: A	Q4: B	Q4: A	Q4: A
Q5:	B	Q5:	Q5: C	Q5: A	Q5: B	Q5: A
Q6:	B	Q6:	Q6: C	Q6: C	Q6: A	Q6: C
Q7:	A				Q7: A	
Q8:	C					
Q9a:						
Q9b:	C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: B	Q1: A	Q1: C
Q2: B	Q2: B	Q2: C	Q2: C
Q3: C	Q3: B	Q3: C	Q3: C
Q4: B	Q4: C	Q4: B	Q4: B
Q5a:	Q5: A	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: B
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	The wetland's fish habitat function is impacted or degraded.
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland has potential for educational use.
Recreation:	The wetland has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-21, 22, 23, 25, 26

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with 5 or fewer plant species. Emergent veg. & ponding or open water only. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland not connected to other wetlands, but within 3 mile radius of other wetlands. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	The wetland's fish habitat function is impacted or degraded.	More than 75% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains less than 10% of instream structures. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. No fish species present during the year.
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	No part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is restricted or no outlet. Emergent veg. and ponding , or open water only is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/industrial (developed) land use within 500 feet of wetland's edge. Dominant

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-21, 22, 23, 25, 26

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. and ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is groundwater, including springs and seeps. Water flow into wetland is restricted and cannot be restored. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation, but allowed only with permission. One to two visible safety hazards exist at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is a maintained public access point within 250 feet of the wetland's edge. Access is not available for limited mobility.
<i>Recreation</i>	The wetland has the potential to provide recreational opportunities.	There is a maintained public access point within 250 feet of wetland's edge. Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Less than 25% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Continuous traffic and other intrusive noise and natural sounds are audible at primary viewing location.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: MC-21, 22, 23, 25, 26

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

**Woodburn
Local Wetland Significance Assessment**

WetlandCode: MC-21, 25, 26

A. "OUT" Test

Yes Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

Woodburn Local Wetland Significance Assessment

WetlandCode: MC-22, 23

A. "OUT" Test

- No** Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:
- (a) created for the purpose of controlling, storing, or maintaining stormwater;
 - (b) active surface mining ponds;
 - (c) ditches without free and open connection to waters of the state AND without fish;
 - (d) <1 acre and unintentionally created from irrigation leak or construction activity;
 - (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland does NOT meet the criteria for identification as a Local Significant Wetland

B. "IN"

- No** Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:
- No** wildlife habitat,
 - No** fish habitat,
 - No** water quality,
 - No** hydrologic control.
- No** Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.
- No** Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.
- No** Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).
- No** Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."
- No** OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.
- No** OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 09/25/99

Wetland Mapping Code: MC-24 a,b

Investigator(s): ES

Size (acres): 0

Location

Legal: T5S R1W S8

2600, 3800

Other: NW of intersection of Hwy 214 and Hwy 99E

Basin: Mill Creek

Soils

Mapped Series: WuA, Co

Hydrology

Hydrologic Source: Precipitation

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

POTENTIAL WETLAND AREA: On the advise of a DSL wetland inventory specialist, these sites were investigated after the initial Woodburn Local Wetland Inventory field work in 1998. Site MC-30a, the larger of the two sites, is just west of the K-Mart Store, north of Hwy.214 and west of Hwy.99E. The site is an undeveloped, open field surrounded by commercial development and impervious road surfaces. Topography is generally level, with the exception of subtle lower areas in places across the site possibly resulting from past land use practices. Because of surrounding development, the site is slightly lower than the adjacent properties, thus increasing the likelihood that low areas retain moist conditions longer in the season. Surface conditions observed in Sept. 1999 were very dry. Vegetation had been mowed earlier in the season, though partial regrowth had occurred by the time of the site visit. Vegetation across the site is generally an assemblage of weedy species, with only a few hydrophytes present in no apparent pattern. Site MC-30b is similar to MC-30a in surrounding land use, plant species. Topography is similar in character to MC-30a, although the southern border of MC-30b has a higher berm area. Old, dried tire ruts were present in the middle of MC-30b suggesting the site is considerably wetter earlier in the season. An early spring site investigation, when higher surface moisture content and new plant growth are present would help to make a more accurate determination of potential wetland sites, MC-30a, b.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 09/25/99	Investigator(s): ES
Project Name: City of Woodburn	
Wetland Code: MC-24 a,b	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: B	Q1:	Q1:	Q1: B	Q1: B	Q1:
Q2: C	Q2:	Q2:	Q2: B	Q2: C	Q2:
Q3: C	Q3:	Q3:	Q3: C	Q3: B	Q3: C
Q4: A	Q4:	Q4:	Q4: B	Q4: A	Q4: A
Q5: B	Q5:	Q5:	Q5: A	Q5: C	Q5: A
Q6: B	Q6:	Q6:	Q6: C	Q6: A	Q6: B
Q7: A				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: C	Q1: C
Q2: C	Q2: A	Q2: C	Q2: A
Q3:	Q3: B	Q3: C	Q3: C
Q4: B	Q4: C	Q4: B	Q4: C
Q5a:	Q5: C	Q5: B	Q5: B
Q5b: C	Q6: B	Q6: B	Q6: C
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has little enhancement potential.
Education:	The wetland has potential for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational opport
Aesthetic Quality:	The wetland is not pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-24 a,b

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with more than 5 plant species. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland not connected to other wetlands, but within 3 mile radius of other wetlands. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Precipitation or sheet flow is wetland's primary source of water. Unable to determine evidence of flooding or ponding during the growing season (or unapplicable). Low (<60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. No evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is restricted or no outlet. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>	The wetland has little enhancement potential.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is precipitation or sheet flow. Wetland's area is

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: MC-24 a,b

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is not pleasing.	One Cowardin class is visible from primary viewing area(s). More than 50% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is developed with no landscaping. At certain times, unpleasant odors are present at the primary viewing location. Continuous traffic and other intrusive noise and NO natural sounds are audible at primary viewing location.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-27

Investigator(s): JG/ES

Size (acres): 0.07

Location

Legal: T5S R1W S8

1500

Other: W SW of Hwy 211/99E intersection

Basin: Mill Creek

Soils

Mapped Series: Am

Hydrology

Hydrologic Source: Precipitation

Wetland Classification(s): N/A

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. This site appears to be a stormwater detention pond on the eastern border of the shopping center parking lot.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: MC-28

Investigator(s): JG/ES

Size (acres): 0.18

Location

Legal: T5S R1W S8

300

Other: W SW of Hwy 211/99E intersection

Basin: Mill Creek

Soils

Mapped Series: Am

Hydrology

Hydrologic Source: Precipitation; stormwater runoff

Wetland Classification(s): N/A

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

This site appears to be a triangular shaped stormwater detention pond located on the eastern boundary of the Jehovah's Witnesses facility off of Hwy. 99E.

Wetland Classification Codes:

PFO = palustrine forested

PSS = palustrine scrub-shrub

RSB = riverine streambed (intermittent)

PEM = palustrine emergent

POW = palustrine open water

RUB = riverine unconsolidated bottom

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/21/98

Wetland Mapping Code: SC-01

Investigator(s): JG/ES

Size (acres): 23.02

Location

Legal: T5S R2W S1

3100, 7000, 9700

Other: NE and SW of Senecal Creek Dr.

Basin: Senecal Creek

Soils

Mapped Series: Ba

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PFO, PEM, RUB

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

This wetland is roughly a rectangular shaped area approximately 300' wide and 3000' in length, trending southwest to northeast. The northern one-third of the site has a more open vegetative character; the straightened channel of Senecal Creek is dominated by reed canarygrass (*Phalaris arundinacea*). The creek was nearly dry with small areas of inundation and other areas very wet. Outside the northern channel zone the wetland is bordered by Oregon ash (*Fraxinus latifolia*) and Sitka willow (*Salix sitchensis*). The southern section is more densely wooded with Oregon ash, Sitka willow and a greater diversity of herbaceous and shrub species. Additionally, Douglas fir (*Pseudotsuga menziesii*) upland is found outside the wooded wetland on the west and east-central sides and the extreme southwestern side.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: SC-01 Plot: 1
 T 5S R 2W S 1 City: Woodburn County: Marion State: OR
 Plot Location; Topography: In drainage channel due west of intersection of Willow Ave. and Steven St.
 Project #: 2981036 Determined by: JG/ES Date: 7/21/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? **Yes**

Are Soils Vegetation Hydrology significantly disturbed? **No**

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:	
Herb Stratum - % total cover:		80	Shrub/Sapling Stratum - % total cover: 20	
	<i>Phalaris arundinacea</i>	FACW 90	<i>Convolvulus sepium</i>	UPL 70
	<i>Solanum dulcamara</i>	FAC+ 10	<i>Rosa pisocarpa</i>	FAC 30
Woody Vine Stratum - % total cover:		0	Tree Stratum - % total cover: 30	
			<i>Fraxinus latifolia</i>	FACW 100

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 3 of 4 = 75 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw

Drainage Class: poorly to very poorly drained
 Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-4"	10 YR 3/1	none	silty clay smooth mucky
	4-16"	Gley 1 3/N		clayey silt - angular, blocky

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input checked="" type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >16" Depth to saturation: 0"

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
- Water-stained leaves
- Recorded data (aerials, groundwater data)
- Local soil survey data
- FAC-Neutral test
- Explain:
- Other
- Explain:

Remarks: Soil saturated to the surface.

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: SC-01 Plot: 2
 T 5S R 2W S 1 City: Woodburn County: Marion State: OR
 Plot Location; Topography: Level area along the creek channel; W of intersection of Willow Ave. and Steven St.
 Project #: 2981036 Determined by: JG/ES Date: 7/21/98

DETERMINATION: IS THIS PLOT IN A WETLAND? Yes

Do Normal Circumstances exist on the site? Yes

Are Soils Vegetation Hydrology significantly disturbed? No

VEGETATION	Dominant Plant Species	Ind. %Cover:	Ind. %Cover:
Herb Stratum - % total cover:		75	Shrub/Sapling Stratum - % total cover:
			25
	<i>Phalaris arundinacea</i>	FACW 60	<i>Rosa pisocarpa</i>
	<i>Carex obnupta</i>	OBL 30	<i>Cornus stolonifera</i>
	<i>Rumex sp.</i>	FAC 10	
Woody Vine Stratum - % total cover:		5	Tree Stratum - % total cover:
			70
	<i>Solanum dulcamara</i>	FAC+ 100	<i>Fraxinus latifolia</i>
			<i>Salix sitchensis</i>
			FACW 85
			FACW 15

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 6 of 6 = 100 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Bashaw

Drainage Class: poorly to very poorly drained

Taxonomy: Very fine, montmorillonitic, mesic Typic Pelloxererts

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	<u>0-8"</u>	<u>10 YR 3/1</u>	<u>none</u>	<u>silty clay</u>
	<u>8-16"</u>	<u>Gley 1-3N</u>		<u>clayey silt</u>

- | | | | |
|--|--|---|--|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input checked="" type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation: N/A Depth to water table: >16" Depth to saturation: >16"

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
 - Water-stained leaves
 - Recorded data (aerials, groundwater data)
 - Local soil survey data
 - FAC-Neutral test
 - Other
- Explain: _____
- Explain: _____

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Woodburn Site: SC-01 Plot: 3
 T 5S R 2W S 1 City: Woodburn County: Marion State: OR
 Plot Location; Topography: SE of intersection of Ten Oaks Lane and Senecal Creek Drive.
 Project #: 2981036 Determined by: JG/ES Date: 7/21/98

DETERMINATION: IS THIS PLOT IN A WETLAND? No

Do Normal Circumstances exist on the site? **Yes**

Are Soils Vegetation Hydrology significantly disturbed? **No**

VEGETATION		Dominant Plant Species	Ind. %Cover:		Ind. %Cover:
Herb Stratum - % total cover:			20	Shrub/Sapling Stratum - % total cover:	
	<i>Polystichum munitum</i>	FACU	80		<i>Symphoricarpos albus</i>
	<i>Vancouveria hexandra</i>	UPL	20		FACU 30
					FACU 15
					<i>Rhamnus purshiana</i>
					FAC- 15
					<i>Prunus emarginata</i>
					FACU 10
					<i>Ilex aquifolium</i>
					UPL 5
					<i>Holodiscus discolor</i>
					UPL 5
					<i>Rosa gymnocarpa</i>
					FACU 5
Woody Vine Stratum - % total cover:			10	Tree Stratum - % total cover:	
	<i>Rubus ursinus</i>	FACU	100		<i>Pseudotsuga menziesii</i>
					FACU 60
					<i>Acer macrophyllum</i>
					FACU 40

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 0 of 8 = 0 % (50/20 Rule)

Vegetation Criterion Met? No

SOILS Mapped Unit Name: Woodburn Silt Loam
 Drainage Class: moderately well drained
 Taxonomy: Fine-silty, mixed, mesic, Aquultic Argixerolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0"-9"	10 YR 3/4	none	loam
	9"-16"	10 YR 4/3		silty loam

- | | | | |
|--|--|---|---|
| <input type="checkbox"/> Histosol | <input type="checkbox"/> Prob. Aquic moisture regime | <input type="checkbox"/> Redox features | <input type="checkbox"/> Organic streaking |
| <input type="checkbox"/> Histic epipedon | <input type="checkbox"/> Reducing conditions | <input type="checkbox"/> Concretions | <input type="checkbox"/> Organic pan |
| <input type="checkbox"/> Sulfidic odor | <input type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input type="checkbox"/> On hydric soils list |

Soil Criterion Met? No

HYDROLOGY

Depth of inundation: N/A Depth to water table: >16 Depth to saturation: >16

Primary Indicators:

- Inundated
- Saturated in upper 12"
- Water marks
- Drift lines
- Sediment deposits
- Drainage patterns

Secondary Indicators (2 or more required):

- Oxidized rhizospheres
- Water-stained leaves
- Recorded data (aerials, groundwater data)
- Local soil survey data
- FAC-Neutral test
- Explain:
- Other
- Explain:

Hydrology Criterion Met? No

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 07/21/98	Investigator(s): JG/ES
Project Name: City of Woodburn	
Wetland Code: SC-01	Project Number: 2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: A	Q1: C	Q1:	Q1: A	Q1: A	Q1: A
Q2: A	Q2: B	Q2:	Q2: A	Q2: A	Q2: B
Q3: C	Q3: C	Q3:	Q3: A	Q3: A	Q3: C
Q4: A	Q4: A	Q4:	Q4: A	Q4: B	Q4: A
Q5: A	Q5: C	Q5:	Q5: A	Q5: A	Q5: A
Q6: A	Q6: C	Q6:	Q6: C	Q6: A	Q6: A
Q7: A				Q7: B	
Q8: C					
Q9a:					
Q9b: A					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: B	Q1: B
Q2: A	Q2: A	Q2: C	Q2: B
Q3: A	Q3: B	Q3: C	Q3: A
Q4: A	Q4: A	Q4: B	Q4: B
Q5a:	Q5: B	Q5: B	Q5: A
Q5b: A	Q6: B	Q6: B	Q6: A
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	The wetland's fish habitat function is impacted or degraded.
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is intact.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland has educational uses.
Recreation:	The wetland has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-01

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	Two or more Cowardin wetland classes. Woody vegetation is dominant vegetation cover. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland connected to another body of water by surface water. Wetland connected to other wetlands within a 3 mile radius. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. More than 40% of wetland edge bordered by veg. buffer 25 or more feet wide.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is impacted or degraded.	Less than 50% of stream shaded by riparian vegetation. Portions of stream channel modified. Stream contains less than 10% of instream structures. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. No fish species present during the year.
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is intact.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. High (>60%) degree of wetland vegetation cover. More than 5 acres of wetland area. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is more than 5 acres. Minor restrictions slow down waterflow out of the wetland. Woody vegetation is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Agricultural land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-01

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	<p>within 500 feet of wetland's edge. Woody vegetation is the dominant cover.</p> <p>Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is more than 5 acres. More than 40% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.</p>
<i>Education</i>	The wetland has educational uses.	<p>Wetland site is open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is existing physical public access to other features or it can be created easily and other habitats can be observed from this site. There is an unmaintained access point within 250 feet of the wetland's edge. Access is not available for limited mobility.</p>
<i>Recreation</i>	The wetland has the potential to provide recreational opportunities.	<p>There is an unmaintained public access point within 250 feet of the wetland's edge. Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.</p>
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	<p>Two Cowardin classes are visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is landscaped or manipulated by people. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.</p>

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: SC-01

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

**Woodburn
Local Wetland Significance Assessment**

WetlandCode: SC-01

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

- No** wildlife habitat,
- No** fish habitat,
- No** water quality,
- Yes** hydrologic control.

No Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: SC-02 a-d

Investigator(s): JG/ES

Size (acres): 12.81

Location

Legal: T5S R2W S1

101, 200, 300, 600, 602, 1100,
1101, 1102, 6600, 10100

Other: W of Arney Rd. & East Woodland Ave.

Basin: Senecal Creek

Soils

Mapped Series: Am, Ba, Co, WuA, WuC, WuD

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM, PFO, PSS

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. This wetland is composed of four segments. SC-2a is a drainage ditch south of Hwy. 214, and just west of the I-5 south on ramp. SC-2b is located in a vegetated area surrounded by Arney Rd. to the west and north; Hwy. 214 to the south; and a service station/motel complex to the southeast. This site contains a stream drainage and is more shrub-scrub in nature. SC-2c is the main area of this wetland complex, varying in width approximately 100' to 400', and approximately 2200' long. The vegetation noted on this summary was observed at the wetland east of the Stampley residence. SC-2c is mostly wooded at its southern extreme, and sparsely wooded along its northern boundaries. The wetland is mostly dominated by reed canarygrass (*Phalaris arundinacea*) along the stream channel, with rushes (*Juncus* sp.) and other noted herbaceous species back from the channel. SC-2d is a narrow side drainage across from the northeast margin of SC-2c, west of I-5. SC-2d was previously delineated. DSL DET # 97-0453 & 0454.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)

PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	07/21/98	Investigator(s):	JG/ES
Project Name:	City of Woodburn		
Wetland Code:	SC-02 a-d	Project Number:	2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: B	Q1: C	Q1:	Q1: A	Q1: A	Q1: A
Q2: C	Q2: B	Q2:	Q2: A	Q2: A	Q2: B
Q3: C	Q3: C	Q3:	Q3: C	Q3: A	Q3: C
Q4: A	Q4: A	Q4:	Q4: A	Q4: C	Q4: A
Q5: B	Q5: C	Q5:	Q5: A	Q5: C	Q5: A
Q6: A	Q6: B	Q6:	Q6: C	Q6: A	Q6: B
Q7: A				Q7: A	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: B	Q1: B	Q1: C
Q2: A	Q2: A	Q2: C	Q2: B
Q3: A	Q3: B	Q3: C	Q3: C
Q4: A	Q4: C	Q4: B	Q4: C
Q5a:	Q5: B	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: B
Q6: B			

Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	The wetland's fish habitat function is impacted or degraded.
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is intact.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland has potential for educational use.
Recreation:	The wetland has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-02 a-d

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with more than 5 plant species. Emergent veg. or wet meadow. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland connected to other wetlands within a 3 mile radius. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	The wetland's fish habitat function is impacted or degraded.	Less than 50% of stream shaded by riparian vegetation. Portions of stream channel modified. Stream contains less than 10% of instream structures. Upstream not listed as water quality limited. Residential/Industrial land use within 500 feet of wetland edge. Non-Salmonid, non-sensitive fish species present sometime during the year.
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded.	Surface flow (including streams and ditches) is wetland's primary source of water. Evidence of flooding or ponding during part of the growing season. Low (<60%) degree of wetland vegetation cover. More than 5 acres of wetland area. Residential/Industrial land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is intact.	All or part of wetland located within 100-year floodplain or enclosed basin. Evidence of flooding or ponding during the growing season. Area is more than 5 acres. Waterflow out of wetland is unrestricted. Emergent veg. or wet meadow is dominant cover type. Residential/Industrial land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is not being taken out of streams through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Residential/Industrial (developed) land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-02 a-d

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
		cover.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is surface flow, including streams and ditches. Water flow into wetland is not restricted, but if blocked, obstruction can be removed easily. Wetland's area is more than 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland has potential for educational use.	Wetland site is open to the public for direct access or observation, but allowed only with permission. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is an unmaintained access point within 250 feet of the wetland's edge. Access is not available for limited mobility.
<i>Recreation</i>	The wetland has the potential to provide recreational opportunities.	There is an unmaintained public access point within 250 feet of the wetland's edge. Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Between 25 and 50% of wetland is visible from viewing area(s). General appearance of wetland has visual detractors which cannot be removed easily. Visual character with surrounding area is developed with no landscaping. Natural, pleasant odors are present at primary viewing location. Continuous traffic and other intrusive noise and natural sounds are audible at primary viewing location.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: SC-02

This is potentially a Wetland of Special Interest for Protection.

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **A**

Question 9 **B**

Question 10 **B**

Woodburn
Local Wetland Significance Assessment

WetlandCode: SC-02

A. "OUT" Test

- No** Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:
- (a) created for the purpose of controlling, storing, or maintaining stormwater;
 - (b) active surface mining ponds;
 - (c) ditches without free and open connection to waters of the state AND without fish;
 - (d) <1 acre and unintentionally created from irrigation leak or construction activity;
 - (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

- No** Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").
-

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

- Yes** Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:
- No** wildlife habitat,
 - No** fish habitat,
 - No** water quality,
 - Yes** hydrologic control.
- No** Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.
- No** Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.
- No** Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).
- No** Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."
- No** OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.
- No** OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

WOODBURN LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/22/98

Wetland Mapping Code: SC-03

Investigator(s): JG/ES

Size (acres): 8.38

Location

Legal: T5S R2W S13

300, 400, 700

Other: N of Parr Rd., W of Stubb Rd

Basin: Senecal Creek

Soils

Mapped Series: Am, WuA

Hydrology

Hydrologic Source: Precipitation and groundwater

Wetland Classification(s): PSS

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. This site is located in an area of nearly level agricultural fields, and consists of west to east trending elongated rectangular areas approximately 200'x500'; 100'x1000'; and 50'x300', separated by agricultural fields approximately 200'-250' wide. As viewed from the end of Stubb Rd. the site has a fairly high component of *Crataegus douglasii*. The aerial photo of the site indicates herbaceous vegetation throughout the *Crataegus douglasii*. Surface hydrologic features are not obvious from the aerial photo. The western boundary of the site, where the three rectangular areas merge indicate darker, taller vegetation (perhaps tree species). Am and WuA have hydric soil inclusions.

Wetland Classification Codes:

PFO = palustrine forested PSS = palustrine scrub-shrub RSB = riverine streambed (intermittent)
PEM = palustrine emergent POW = palustrine open water RUB = riverine unconsolidated bottom

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	07/22/98	Investigator(s):	JG/ES
Project Name:	City of Woodburn		
Wetland Code:	SC-03	Project Number:	2981036

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: B	Q1:	Q1:	Q1: B	Q1: B	Q1: A
Q2: A	Q2:	Q2:	Q2: C	Q2: C	Q2: A
Q3: C	Q3:	Q3:	Q3: B	Q3: B	Q3: C
Q4: A	Q4:	Q4:	Q4: B	Q4: C	Q4: B
Q5: B	Q5:	Q5:	Q5: B	Q5: A	Q5: A
Q6: B	Q6:	Q6:	Q6: C	Q6: B	Q6: A
Q7: A				Q7: A	
Q8: B					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: C	Q1: C	Q1: C
Q2: B	Q2: A	Q2: C	Q2: C
Q3:	Q3: B	Q3: C	Q3: A
Q4: B	Q4: C	Q4: B	Q4: C
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: A
Q6: B			


Wildlife Habitat:	The wetland provides habitat for some wildlife species.
Fish Habitat - Streams:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is impacted or degraded.
Hydrologic Control:	The wetland's hydrologic control function is impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	The wetland has moderate potential for enhancement.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland is not appropriate for or does not provide recreational oppor
Aesthetic Quality:	The wetland is considered to be moderately pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-03

ProjectNumber: 2981036

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides habitat for some wildlife species.	One Cowardin wetland class with more than 5 plant species. Woody vegetation is dominant vegetation cover. Low degree of Cowardin class interspersion. More than 1 acre of unvegetated open water present. Wetland not connected to another body of water, but water within 1 mile. Wetland not connected to other wetlands, but within 3 mile radius of other wetlands. Upstream not listed as water quality limited. Agricultural land use within 500 feet of wetland edge.
<i>Fish Habitat - Streams</i>	N/A	
<i>Fish Habitat - Lakes/Ponds</i>	N/A	
<i>Water Quality</i>	The wetland's water quality function is impacted or degraded. 	Precipitation or sheet flow is wetland's primary source of water. No evidence of flooding or ponding during the growing season. Moderate (approx. 60%) degree of wetland vegetation cover. Between 0.5 and 5 acres of wetland connected to other wetlands within a 3 mile radius. Agricultural land use within 500 feet of wetland edge. Upstream not listed as water quality limited in watershed or adjacent to the wetland.
<i>Hydrologic Control</i>	The wetland's hydrologic control function is impacted or degraded.	No part of wetland located within 100-year floodplain or enclosed basin. No evidence of flooding or ponding during the growing season. Area is between 0.5 and 5 acres. Waterflow out of wetland is unrestricted. Woody vegetation is dominant cover type. Agricultural land use within 500 ft of wetland on downstream or down-slope edge of wetland. Urban or Urbanizing land use in watershed upstream from area.
<i>Sensitivity to Impact</i>	The wetland is potentially sensitive to future impacts.	Stream flow or bank has been modified by human activities within 1 mile above wetland. Water is being taken out of stream(s) through active diking, drainage, or irrigation districts upstream. Upstream not listed as water quality limited in watershed upstream of the or adjacent to the wetland. Agricultural land use within 500 feet of wetland's edge. Dominant Residential/Industrial (developed) land use within 500 feet of wetland's edge. Woody vegetation is the dominant cover.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	Wetland has lost one or more functions or one or more functions is not present in assessment results for wildlife habitat, fish habitat, water quality and hydrologic control. Wetland's primary source of water is

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-03	ProjectNumber: 2981036
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Function	Evaluation Descriptor	Rationale
		groundwater, including springs and seeps. Wetland's area is between 0.5 and 5 acres. Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is potentially sensitive to future impacts.
<i>Education</i>	The wetland site is not appropriate for educational use.	Wetland site is not open to the public for direct access or observation. There are no visible hazards to the public at the wetland site. Provides wildlife habitat for some species, or fish habitat is impacted or degraded. There is no existing physical public access to other features, and observation of other features cannot be made. There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Access is not available for limited mobility.
<i>Recreation</i>	The wetland is not appropriate for or does not provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Wetland not accessible by boat-no boat launch within 1 mile/ cannot develop. No existing trails and viewing areas to guide user or if created, would disrupt wildlife or plant habitat. Wetland provides habitat for some species. Fishing is not allowed at wetland or adjacent water body (or not applicable). Hunting is not allowed at the wetland.
<i>Aesthetic Quality</i>	The wetland is considered to be moderately pleasing.	One Cowardin class is visible from primary viewing area(s). Less than 25% of wetland is visible from viewing area(s). General appearance of wetland has no visual detractors. Visual character with surrounding area is developed with no landscaping. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

**Woodburn
Wetlands of Special Interest for Protection Assessment
Answer Sheet**

WetlandCode: SC-03

Question 1 **B**
List:

Question 2 **B**
List:

Question 3 **B**
List:

Question 4 **B**
List:

Question 5 **B**

Question 6 **B**

Question 7 **B**
List:

Question 8 **C**

Question 9 **B**

Question 10 **B**

Woodburn
Local Wetland Significance Assessment

WetlandCode: SC-03

A. "OUT" Test

No Wetlands artificially CREATED ENTIRELY FROM UPLAND that are:

- (a) created for the purpose of controlling, storing, or maintaining stormwater;
- (b) active surface mining ponds;
- (c) ditches without free and open connection to waters of the state AND without fish;
- (d) <1 acre and unintentionally created from irrigation leak or construction activity;
- (e) of any size and created for the purpose of wastewater treatment, stock watering, settling of sediment, cooling industrial water, or as a golf course hazard.

No Documented as being contaminated by hazardous substances, materials or wastes ("Hazmat sites").

This wetland MEETS the criteria for identification as a Local Significant Wetland

B. "IN"

Nope

Yes Wetlands that score the highest rank for ANY of the four ecological functions addressed by OFWAM or equivalent methodology:

No wildlife habitat,

No fish habitat,

Yes water quality, *error*

No hydrologic control.

No Wetlands that (1) are rated in either the highest or second highest category for water quality (in OFWAM or equivalent) AND that (2) the wetland is within one-quarter mile from a water quality-limited stream as listed by DEQ.

No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

No Inhabited by any species listed by the federal or state government as a sensitive, threatened or endangered species in Oregon (unless consultation with appropriate agency deems the site not important for the maintenance of the species).

No Wetland rates in either the highest or second highest category for Fish Habitat in OFWAM and is located adjacent to a stream segment that is mapped by ODFW as habitat for "Indigenous anadromous salmonids."

No OPTIONAL CRITERION (at discretion of local government): Wetland represents a LOCALLY unique plant community.

No OPTIONAL CRITERION (at discretion of local government): Wetland is publicly owned, rates highest rank for education potential, and there is documented use for educational purposes by a school or organization.

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: ECL-1

Riparian Width Determination

Date: 7/22/98 Investigators: JG/ES

Dominant tree species: *Quercus garryana*

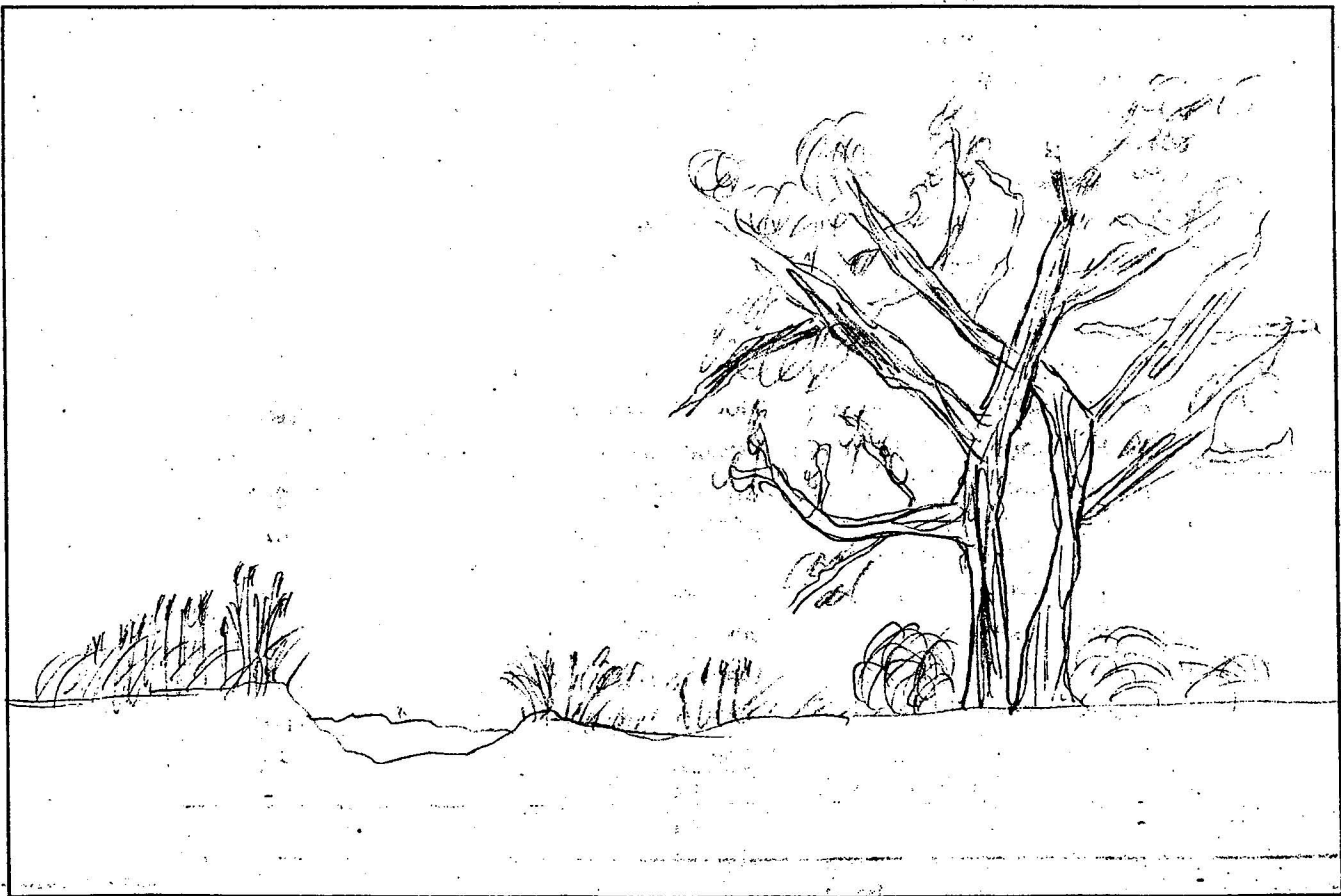
Potential tree height (PTH)/Width of Riparian Area: 60/35

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Wetland oriented in a north/south direction, bordered closely on the west by *Quercus garryana*, and far fewer numbers of *Fraxinus latifolia*, within 50' of open water. The same species of trees are scattered to a lesser extent on the east side of the wetland at a greater distance from the water. The tree layer is approx. 40' wide and composes about 20% of the wetland margin. The open water segment is approx. 10-15' wide by 600' long and ponded or very slow moving in character. Open water is estimated < 1% of the wetland and mainly unshaded. Tree understory consists of *Rubus* sps., *Juncus* sps., *Phalaris arundinacea*, *Rosa pisocarpa*, *Pleum pratense*, and *Lotus corniculatus*.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: ECL-1

Riparian Characterization Form

Part 1

General Information

Date: 7/22/98

On-site Office

Reach Length: 600

Investigators: JG/ES

Hydrologic Basin: Senecal Creek

Water Resource Information

Water Resource: Stream/River Width: 0

Lake/Pond Width: 15

Wetland Width: 150

LWI Wetland Code: PEM

Water present year-round: Yes

Are salmonids present in the adjacent water resource: No

Is the water resource listed for temperature on DEQ's 303(d) list: No

Within FEMA-mapped 100-year floodplain: No

Mapped soil series: Ba, WuC, WuD

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

Quercus garryana

Fraxinus latifolia

Rubus discolor

Rubus laciniatus

Herbaceous Vegetation

Juncus effusus

Juncus patens

Phalaris arundinacea

Lotus corniculatus

Pheum pratense

Dipsacus sylvestris

Rosa pisocarpa

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: ECL-1

Riparian Characterization Form

Part 2

Average slope in the riparian area: (Question 1)

- <10:1 (10%) Between 10:1 (10%) and 5:1 (20%) >5:1 (20%)

Extent of impervious surface within the riparian area: (Question 4)

- <10% 10% to 25% >25%

The reach is constricted by man-made features.

The orientation allows for shading of the water resource at midday in summer.

Dominant vegetation layer within the riparian area:

- Woody vegetation Herbaceous vegetation Bare ground

Woody vegetation hangs over the edge of the water.

Large woody debris in riparian area.

Percent of water resource bordered by vegetated riparian area at least 30 feet wide:

- >40% 10% to 40% <10%

Degree of development or human cause disturbance:

- <25% 25% to 75% >75%

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: ECL-1

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 3
Question 2: 3
Question 3: 2
Question 4: 3
Question 5: 2

Total Points: 13

Function:

- High
 Medium
 Low

Flood Management

Question 6: 3
Question 7: 3
Question 8: 3

Total Points: 9

Function:

- High
 Medium
 Low

Thermal Regulation

Question 9: 1
Question 10: 3
Question 11: 1

Total Points: 5

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 1
Question 15: 1
Question 16: 2
Question 17: 3
Question 18: 1
Question 19: 3

Total Points: 17

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: ECR-1

Riparian Width Determination

Date: 9/1/98 Investigators: DC/JG

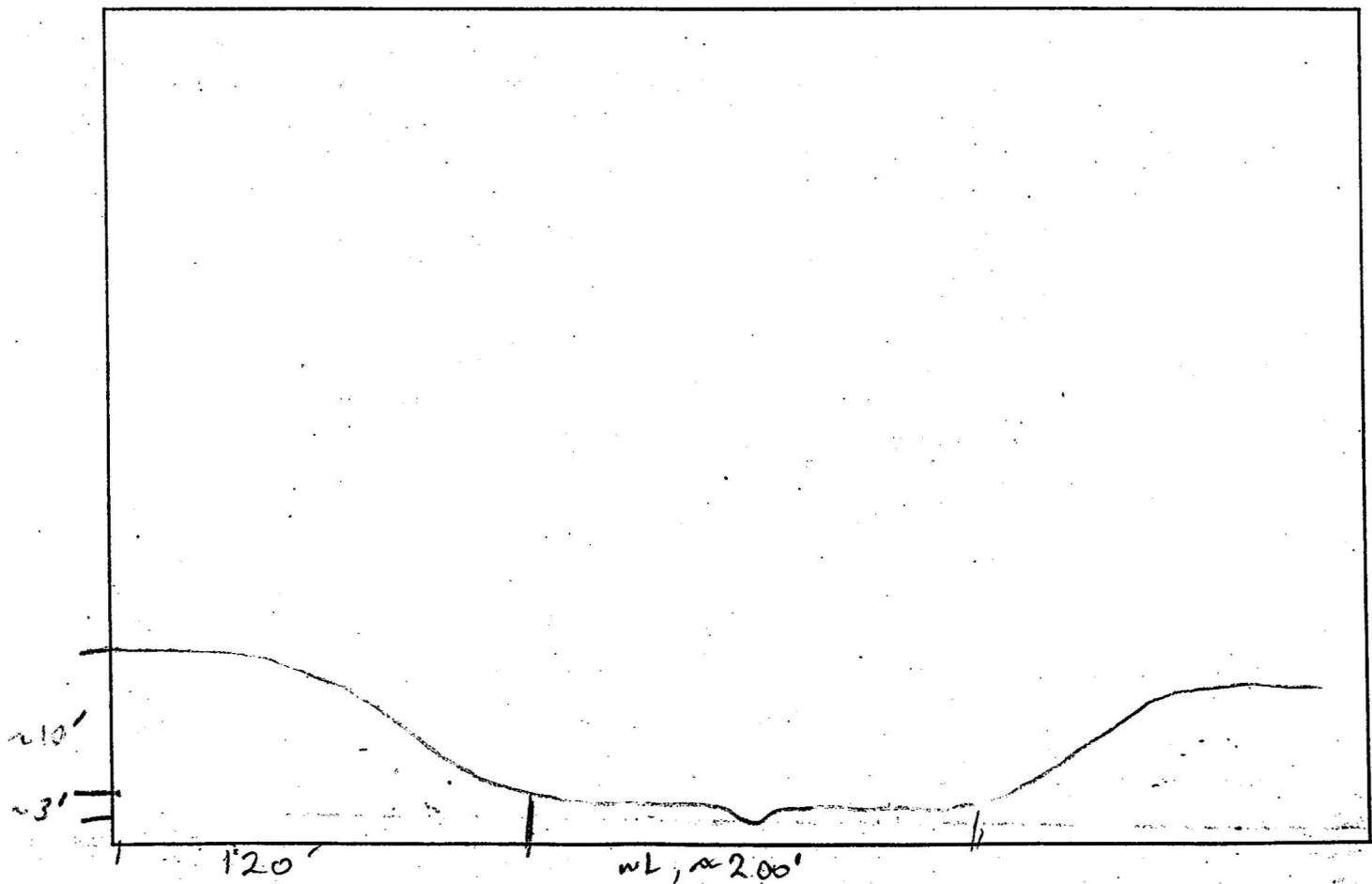
Dominant tree species: Quercus garryana

Potential tree height (PTH)/Width of Riparian Area: 60/60
(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Riparian area from tip of land east is being developed; reach from Arney Road to north boundary of sandy area.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: ECR-1

Riparian Characterization Form

Part 1

General Information

Date: 9/1/98
On-site Office Reach Length: 2600
Investigators: DC/JG Hydrologic Basin: Senecal Creek

Water Resource Information

Water Resource: Stream/River Width: 5
Lake/Pond Width: 0
Wetland Width: 2

LWI Wetland Code: SC-2

Water present year-round: No

Are salmonids present in the adjacent water resource: No

Is the water resource listed for temperature on DEQ's 303(d) list: No

Within FEMA-mapped 100-year floodplain: No

Mapped soil series: Ba, WuD, WuC, Co

Adjacent Land Uses?

Agriculture Residential Undeveloped
Commercial Roads Forestry

Woody Vegetation

Quercus garryana
Fraxinus latifolia
Pseudotsuga menziesii
Prunus emarginata
Crataegus monogyna
Rosa pisocarpa

Herbaceous Vegetation

Rubus discolor
Daucus carota
Cirsium arvense
Holcus lanatus

Urban Riparian Inventory and Assessment

Project Number: 2981036

Project Name: City of Woodburn

Riparian Code: ECR-1

Riparian Characterization Form

Part 2

Average slope in the riparian area: (Question 1)

- <10:1 (10%) Between 10:1 (10%) and 5:1 (20%) >5:1 (20%)

Extent of impervious surface within the riparian area: (Question 4)

- <10% 10% to 25% >25%

The reach is constricted by man-made features.

The orientation allows for shading of the water resource at midday in summer.

Dominant vegetation layer within the riparian area:

- Woody vegetation Herbaceous vegetation Bare ground

Woody vegetation hangs over the edge of the water.

Large woody debris in riparian area.

Percent of water resource bordered by vegetated riparian area at least 30 feet wide:

- >40% 10% to 40% <10%

Degree of development or human cause disturbance:

- <25% 25% to 75% >75%

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: ECR-1

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 2
Question 2: 2
Question 3: 2
Question 4: 3
Question 5: 2
Total Points: 11

Function:

- High
 Medium
 Low

Flood Management

Question 6: 1
Question 7: 2
Question 8: 1
Total Points: 4

Function:

- High
 Medium
 Low

Thermal Regulation

Question 9: 1
Question 10: 2
Question 11: 1
Total Points: 4

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 30
Question 13: 3
Question 14: 2
Question 15: 3
Question 16: 3
Question 17: 3
Question 18: 3
Question 19: 3
Total Points: 50

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCL-1

Riparian Width Determination

Date: 9/1/98 Investigators: DC/JG

Dominant tree species: *Pseudotsuga menziesii*

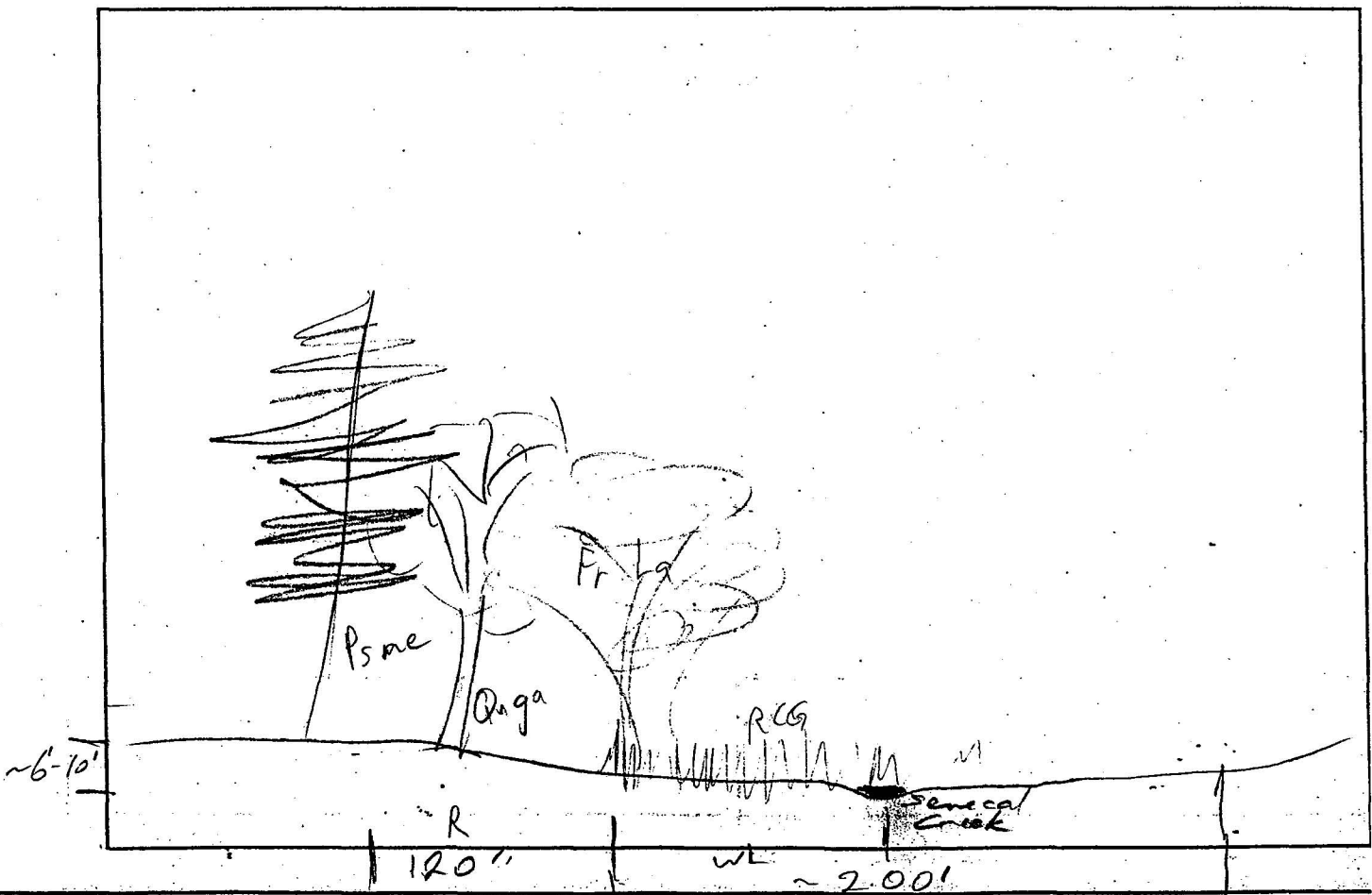
Potential tree height (PTH)/Width of Riparian Area: 120/100

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: From west edge of UGB (north of Hwy 214); south end of riparian area to south end of Ten Oaks Lane

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCL-1

Riparian Characterization Form

Part 1

General Information

Date: 9/1/98
On-site Office Reach Length: 2120
Investigators: DC/JG Hydrologic Basin: Senecal Creek

Water Resource Information

Water Resource: Stream/River Width: 5
Lake/Pond Width: 0
Wetland Width: 200
LWI Wetland Code: SC-1
Water present year-round: No
Are salmonids present in the adjacent water resource: No
Is the water resource listed for temperature on DEQ's 303(d) list: No
Within FEMA-mapped 100-year floodplain: Yes
Mapped soil series: Ba, WuC, WuD, Da

Adjacent Land Uses?

Agriculture Residential Undeveloped
Commercial Roads Forestry

Woody Vegetation

Pseudotsuga menziesii
prem
Corylus cornuta
Amelanchier alnifolia

Herbaceous Vegetation

Rubus discolor
Holcus lanatus
Symphoricarpos albus
Rubus ursinus
Dactylis glomerata
Daucus carota
Phalaris arundinacea
Lonicera involucrata

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCL-1

Riparian Characterization Form

Part 2

Average slope in the riparian area: (Question 1)

- <10:1 (10%) Between 10:1 (10%) and 5:1 (20%) >5:1 (20%)

Extent of impervious surface within the riparian area: (Question 4)

- <10% 10% to 25% >25%

The reach is constricted by man-made features.

The orientation allows for shading of the water resource at midday in summer.

Dominant vegetation layer within the riparian area:

- Woody vegetation Herbaceous vegetation Bare ground

Woody vegetation hangs over the edge of the water.

Large woody debris in riparian area.

Percent of water resource bordered by vegetated riparian area at least 30 feet wide:

- >40% 10% to 40% <10%

Degree of development or human cause disturbance:

- <25% 25% to 75% >75%

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCL-1

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 3
Question 2: 2
Question 3: 3
Question 4: 3
Question 5: 2
Total Points: 13

Function:

- High
 Medium
 Low

Flood Management

Question 6: 1
Question 7: 1
Question 8: 1
Total Points: 3

Function:

- High
 Medium
 Low

Thermal Regulation

Question 9: 1
Question 10: 2
Question 11: 1
Total Points: 4

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 1
Question 13: 2
Question 14: 1
Question 15: 1
Question 16: 2
Question 17: 1
Question 18: 3
Question 19: 1
Total Points: 12

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCL-2

Riparian Width Determination

Date: 9/1/98 Investigators: DC/JG

Dominant tree species: *Pseudotsuga menziesii*

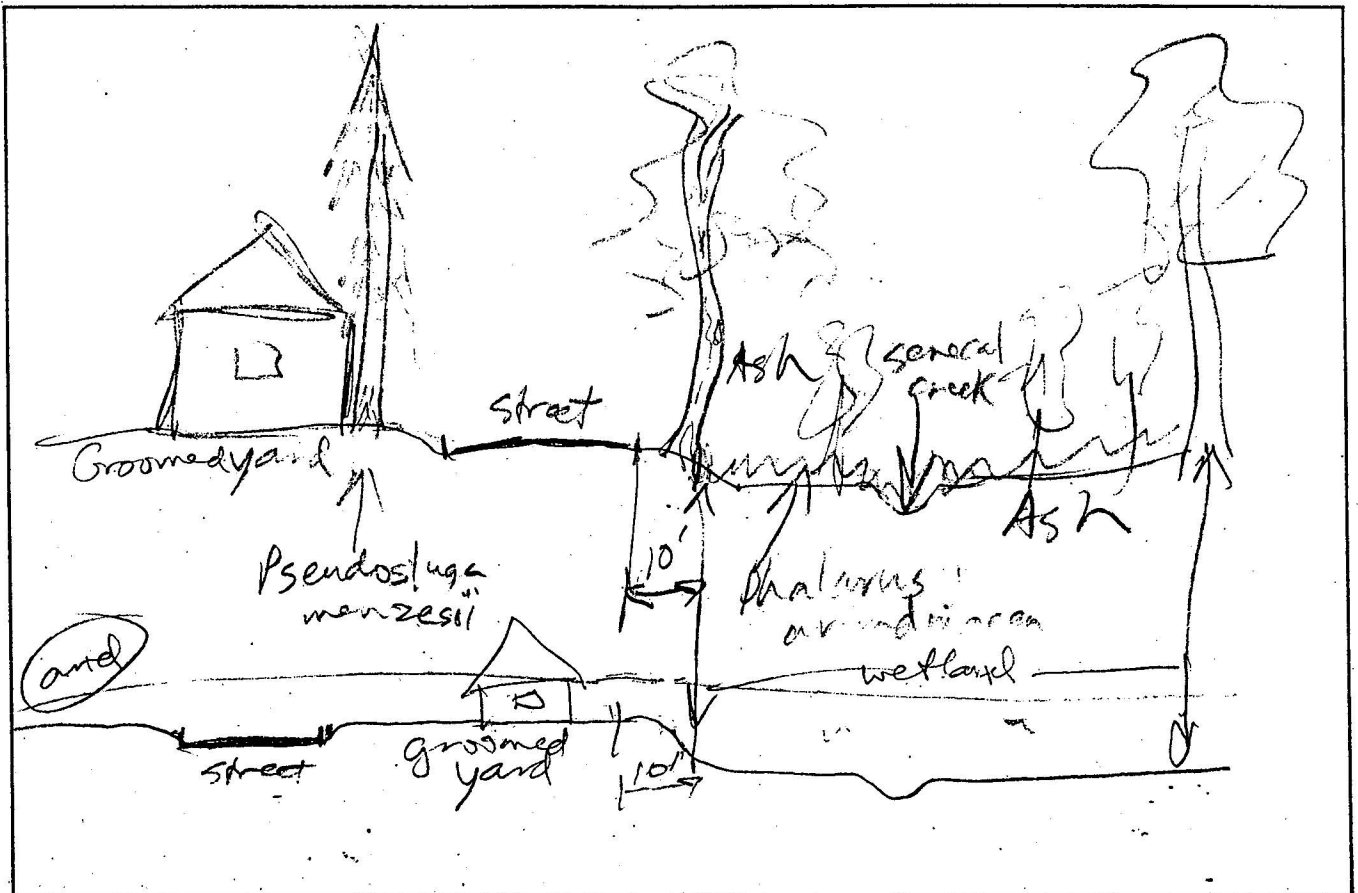
Potential tree height (PTH)/Width of Riparian Area: 120/20

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: From Ten Oaks Lane, south end to north end of Ten Oaks Lane; NW corner of UGB.
Riparian are mostly yards, streets and houses in manufactured home development.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCL-2

Riparian Characterization Form

Part 1

General Information

Date: 9/1/98

On-site Office

Reach Length: 1320

Investigators: DC/JG

Hydrologic Basin: Senecal Creek

Water Resource Information

Water Resource: Stream/River Width: 5
Lake/Pond Width: 0
Wetland Width: 200

LWI Wetland Code: SC-1

Water present year-round: No

Are salmonids present in the adjacent water resource: No

Is the water resource listed for temperature on DEQ's 303(d) list: No

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Ba, WuC

Adjacent Land Uses?

Agriculture Residential Undeveloped
Commercial Roads Forestry

Woody Vegetation

Pseudotsuga menziesii
Fraxinus latifolia

Herbaceous Vegetation

Cirsium vulgare
Phalaris arundinacea
Daucus carota

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCL-2

Riparian Characterization Form

Part 2

Average slope in the riparian area: (Question 1)

- <10:1 (10%) Between 10:1 (10%) and 5:1 (20%) >5:1 (20%)

Extent of impervious surface within the riparian area: (Question 4)

- <10% 10% to 25% >25%

The reach is constricted by man-made features.

The orientation allows for shading of the water resource at midday in summer.

Dominant vegetation layer within the riparian area:

- Woody vegetation Herbaceous vegetation Bare ground

Woody vegetation hangs over the edge of the water.

Large woody debris in riparian area.

Percent of water resource bordered by vegetated riparian area at least 30 feet wide:

- >40% 10% to 40% <10%

Degree of development or human cause disturbance:

- <25% 25% to 75% >75%

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCL-2

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 3
Question 2: 2
Question 3: 2
Question 4: 1
Question 5: 2

Total Points: 10

Function:

- High
 Medium
 Low

Flood Management

Question 6: 1
Question 7: 1
Question 8: 1

Total Points: 3

Function:

- High
 Medium
 Low

Thermal Regulation

Question 9: 1
Question 10: 2
Question 11: 2

Total Points: 5

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 1
Question 13: 2
Question 14: 1
Question 15: 1
Question 16: 1
Question 17: 1
Question 18: 3
Question 19: 1

Total Points: 11

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

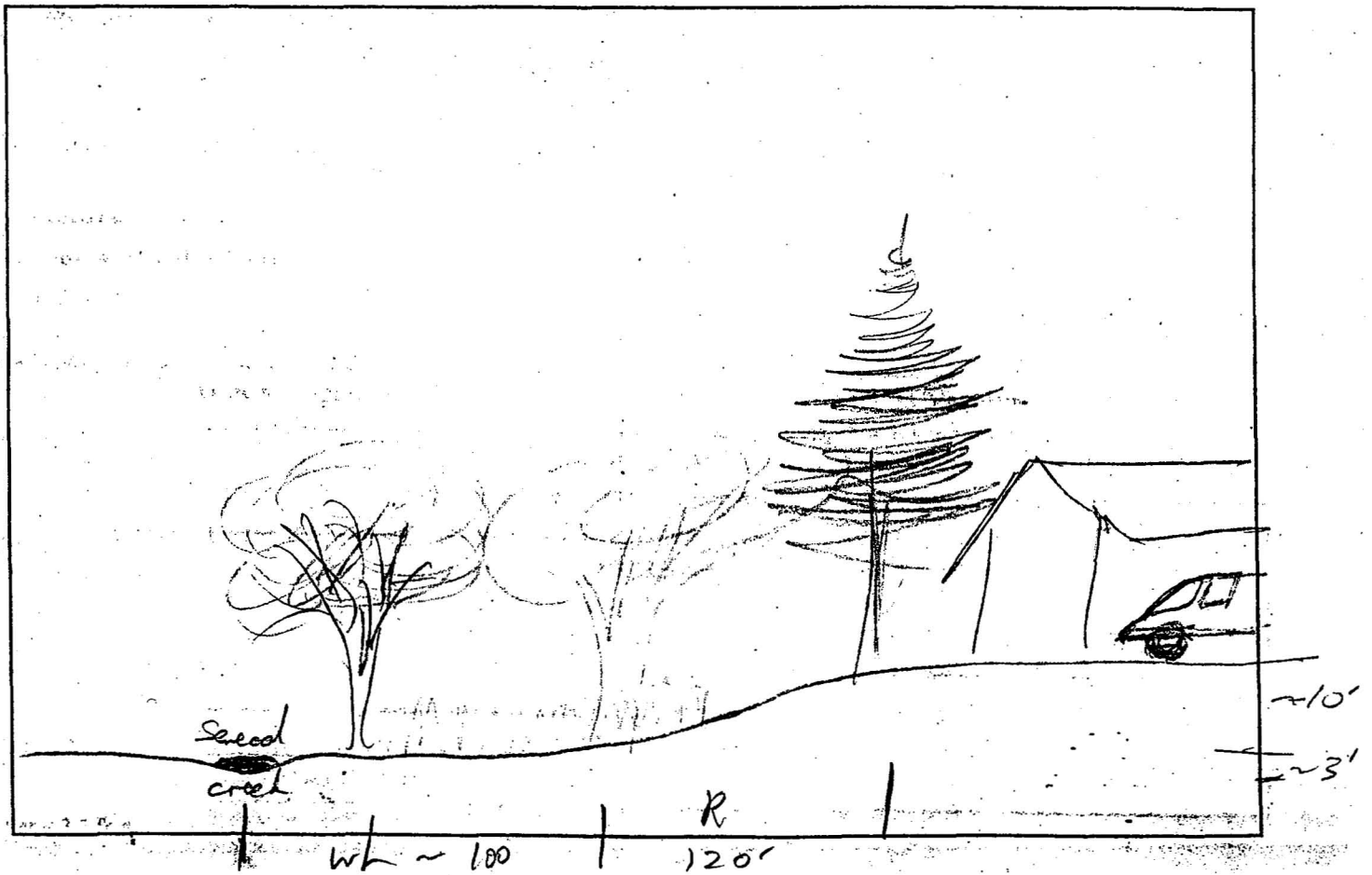
Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-1

Riparian Width Determination

Date: 9/1/98 Investigators: DC/JG
Dominant tree species: *Pseudotsuga menziesii*
Potential tree height (PTH)/Width of Riparian Area: 120/40
(Width measured horizontally from edge of water resource)
PTH determined by: On-site vegetation Reference site Code:

Comments: From west edge of UGB to Steven Street. Reach is a residential development. Riparian vegetation is mostly removed. Scattered, small groups of Douglas Fir (*Pseudotsuga menziesii*)

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-1

Riparian Characterization Form Part 1

General Information

Date: 9/1/98
On-site Office Reach Length: 2060
Investigators: DC/JG Hydrologic Basin: Senecal Creek

Water Resource Information

Water Resource: Stream/River Width: 5
Lake/Pond Width: 0
Wetland Width: 200

LWI Wetland Code: SC-1
Water present year-round: No
Are salmonids present in the adjacent water resource: No
Is the water resource listed for temperature on DEQ's 303(d) list: No

Within FEMA-mapped 100-year floodplain: Yes
Mapped soil series: Ba, WuC

Adjacent Land Uses?

Agriculture Residential Undeveloped
Commercial Roads Forestry

Woody Vegetation

Pseudotsuga menziesii

Herbaceous Vegetation

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-1

Riparian Characterization Form

Part 2

Average slope in the riparian area: (Question 1)

- <10:1 (10%) Between 10:1 (10%) and 5:1 (20%) >5:1 (20%)

Extent of impervious surface within the riparian area: (Question 4)

- <10% 10% to 25% >25%

- The reach is constricted by man-made features.
- The orientation allows for shading of the water resource at midday in summer.

Dominant vegetation layer within the riparian area:

- Woody vegetation Herbaceous vegetation Bare ground

- Woody vegetation hangs over the edge of the water.
- Large woody debris in riparian area.

Percent of water resource bordered by vegetated riparian area at least 30 feet wide:

- >40% 10% to 40% <10%

Degree of development or human cause disturbance:

- <25% 25% to 75% >75%

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-1

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 3
Question 2: 3
Question 3: 3
Question 4: 3
Question 5: 2
Total Points: 14

Function:

- High
 Medium
 Low

Flood Management

Question 6: 3
Question 7: 3
Question 8: 1
Total Points: 7

Function:

- High
 Medium
 Low

Thermal Regulation

Question 9: 1
Question 10: 3
Question 11: 2
Total Points: 6

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 3
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 3
Total Points: 21

Function:

- High
 Medium
 Low

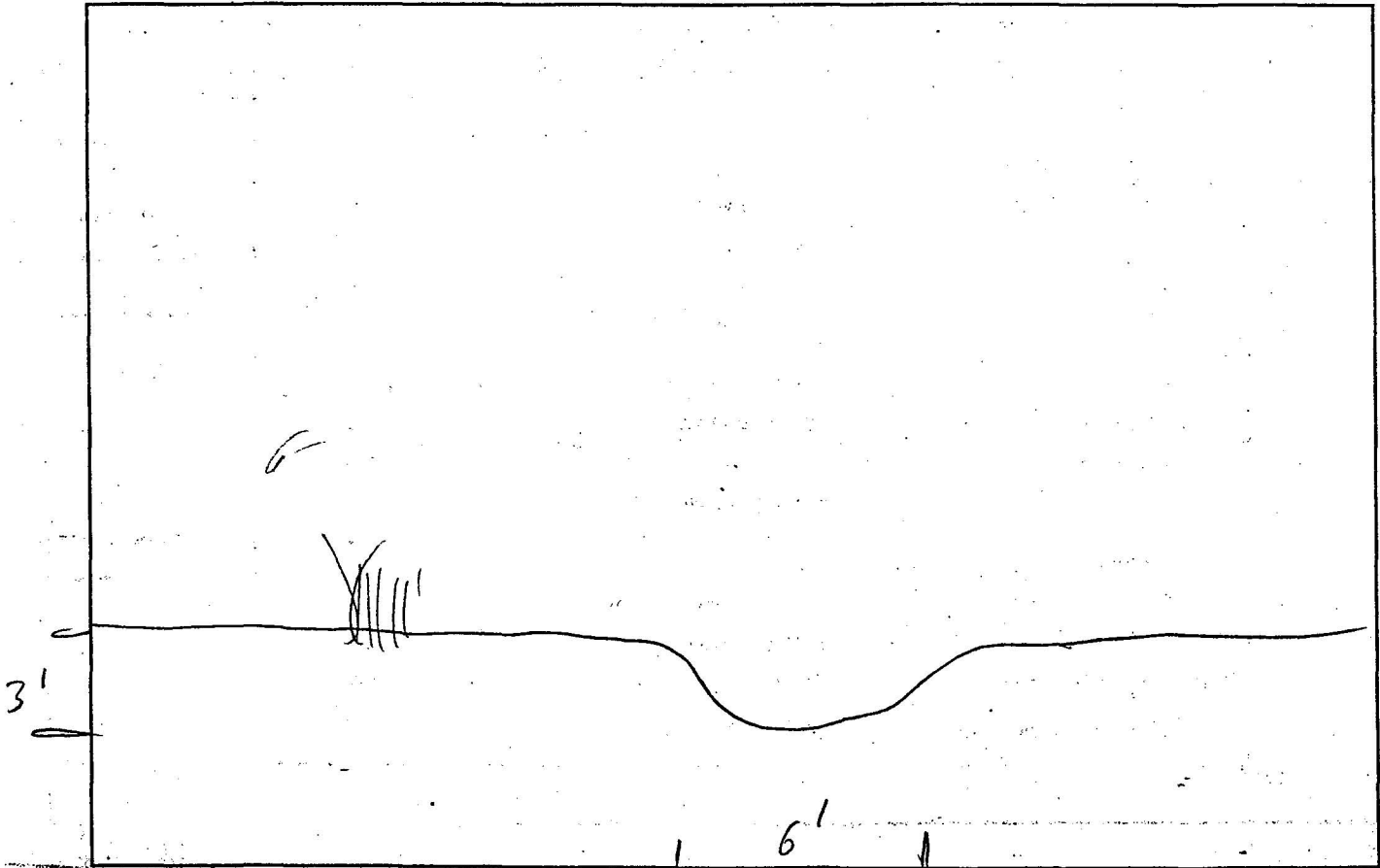
Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-2

Riparian Width Determination

Date: 7/21/98 Investigators: JG/ES
Dominant tree species: *Pseudotsuga menziesii*
Potential tree height (PTH)/Width of Riparian Area: 120/120
(Width measured horizontally from edge of water resource)
PTH determined by: On-site vegetation Reference site Code:
Comments:

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-2

Riparian Characterization Form

Part 1

General Information

Date: 7/21/98

On-site Office

Reach Length: 950

Investigators: JG/ES

Hydrologic Basin: Senecal Creek

Water Resource Information

Water Resource: Stream/River Width: 6
Lake/Pond Width: 0
Wetland Width: 0

LWI Wetland Code: SC-1

Water present year-round: Yes

Are salmonids present in the adjacent water resource: No

Is the water resource listed for temperature on DEQ's 303(d) list: No

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Ba, WuC

Adjacent Land Uses?

Agriculture Residential Undeveloped
Commercial Roads Forestry

Woody Vegetation

Rosa pisocarpa
Spiraea douglasii
Pseudotsuga menziesii
Fraxinus latifolia
Salix sitchensis
Salix lasiandra
Populus balsamifera
Crataegus douglasii
Cornus sericea

Herbaceous Vegetation

Phalaris arundinacea
Carex obnupta
Solanum dulcamara
Equisetum arvense

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-2

Riparian Characterization Form

Part 2

Average slope in the riparian area: (Question 1)

- <10:1 (10%) Between 10:1 (10%) and 5:1 (20%) >5:1 (20%)

Extent of impervious surface within the riparian area: (Question 4)

- <10% 10% to 25% >25%

The reach is constricted by man-made features.

The orientation allows for shading of the water resource at midday in summer.

Dominant vegetation layer within the riparian area:

- Woody vegetation Herbaceous vegetation Bare ground

Woody vegetation hangs over the edge of the water.

Large woody debris in riparian area.

Percent of water resource bordered by vegetated riparian area at least 30 feet wide:

- >40% 10% to 40% <10%

Degree of development or human cause disturbance:

- <25% 25% to 75% >75%

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-2

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 3
Question 2: 3
Question 3: 3
Question 4: 3
Question 5: 2
Total Points: 14

Function:

- High
- Medium
- Low

Flood Management

Question 6: 3
Question 7: 3
Question 8: 1
Total Points: 7

Function:

- High
- Medium
- Low

Thermal Regulation

Question 9: 1
Question 10: 3
Question 11: 2
Total Points: 6

Function:

- High
- Medium
- Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 3
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 3
Total Points: 21

Function:

- High
- Medium
- Low

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-3

Riparian Width Determination

Date: 9/1/98 Investigators: DC/JG

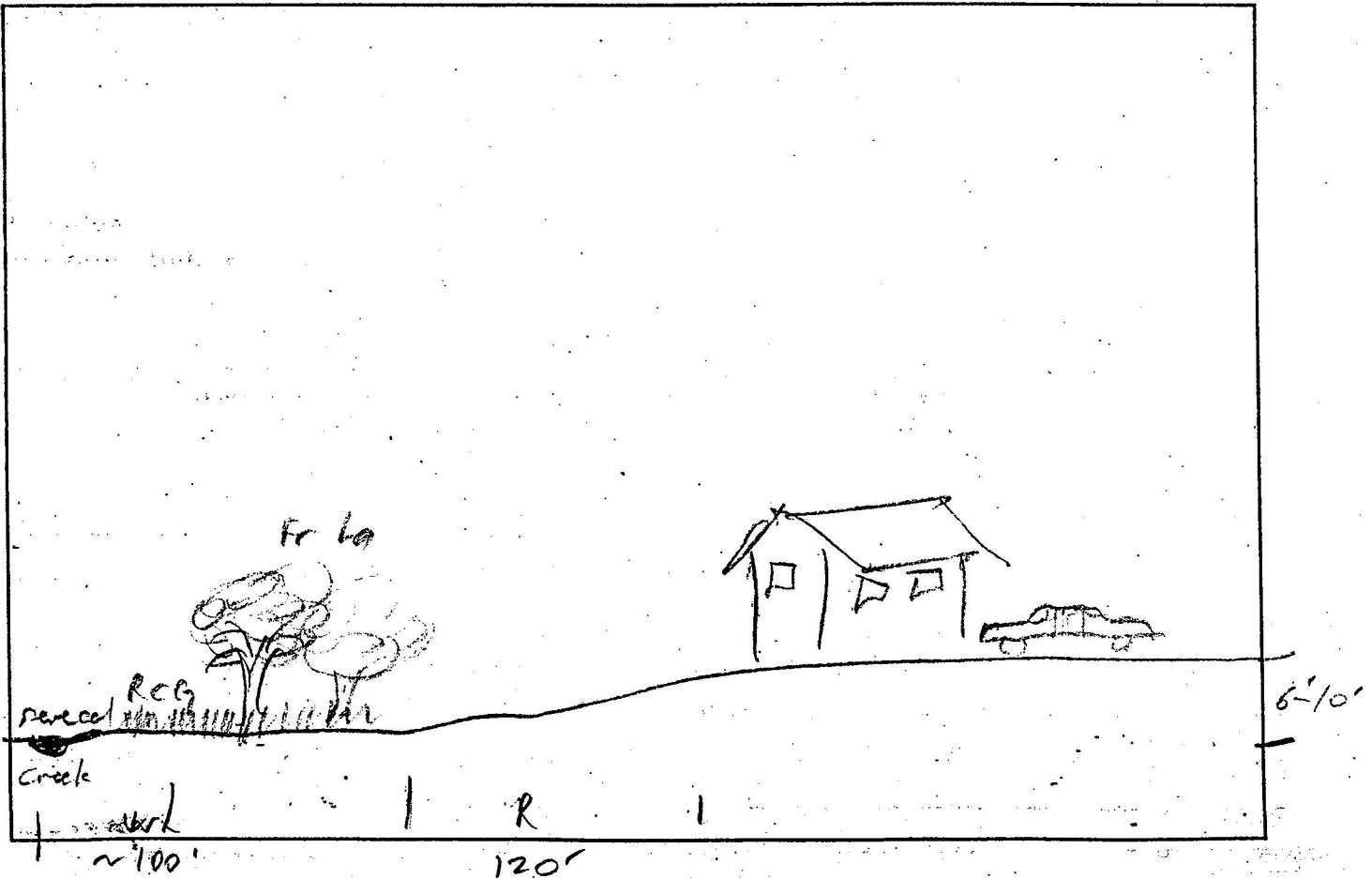
Dominant tree species: *Pseudotsuga menziesii*

Potential tree height (PTH)/Width of Riparian Area: 120/20
(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: From Senecal Creek Drive, NE to corner of UGB. Riparian vegetation is gone. Riparian area is a manufactured home development.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-3

Riparian Characterization Form

Part 1

General Information

Date: 9/1/98
On-site Office Reach Length: 880
Investigators: DC/JG Hydrologic Basin: Senecal Creek

Water Resource Information

Water Resource: Stream/River Width: 5
Lake/Pond Width: 0
Wetland Width: 200

LWI Wetland Code: SC-1

Water present year-round: No

Are salmonids present in the adjacent water resource: No

Is the water resource listed for temperature on DEQ's 303(d) list: No

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Ba, WuC

Adjacent Land Uses?

Agriculture Residential Undeveloped
Commercial Roads Forestry

Woody Vegetation

Herbaceous Vegetation

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-3

Riparian Characterization Form

Part 2

Average slope in the riparian area: (Question 1)

- <10:1 (10%) Between 10:1 (10%) and 5:1 (20%) >5:1 (20%)

Extent of impervious surface within the riparian area: (Question 4)

- <10% 10% to 25% >25%

- The reach is constricted by man-made features.
 The orientation allows for shading of the water resource at midday in summer.

Dominant vegetation layer within the riparian area:

- Woody vegetation Herbaceous vegetation Bare ground

- Woody vegetation hangs over the edge of the water.
 Large woody debris in riparian area.

Percent of water resource bordered by vegetated riparian area at least 30 feet wide:

- >40% 10% to 40% <10%

Degree of development or human cause disturbance:

- <25% 25% to 75% >75%

Urban Riparian Inventory and Assessment

Project Number: 2981036
Project Name: City of Woodburn
Riparian Code: SCR-3

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 3
Question 2: 2
Question 3: 2
Question 4: 2
Question 5: 2
Total Points: 11

Function:

- High
 Medium
 Low

Flood Management

Question 6: 1
Question 7: 2
Question 8: 1
Total Points: 4

Function:

- High
 Medium
 Low

Thermal Regulation

Question 9: 1
Question 10: 3
Question 11: 1
Total Points: 5

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 3
Question 16: 3
Question 17: 1
Question 18: 3
Question 19: 1
Total Points: 19

Function:

- High
 Medium
 Low



Appendix D

DSL OFWAM Manual



Appendix E

DSL Riparian Manual

APPENDIX E

SUMMARY OF RIPARIAN GUIDE ASSESSMENT CATEGORIES

Riparian characteristics and functions assessed by the Urban Riparian Inventory and Assessment Guide (Riparian Guide) are summarized below. For complete assessment information, consult the Riparian Guide document.

Riparian Functions

WATER QUALITY: Erosion risk is directly related to slope: The steeper the slope, the greater the risk of erosion. Vegetation reduces erosion by stabilizing soil and banks through the binding action of roots. Woody vegetation provides the most effective stabilization because of its root mass. Declines in urban water quality can be linked directly to an increase in impervious surfaces. Impervious surfaces increase the frequency and quantity of runoff, contribute pollutants, and reduce natural infiltration provided by soil and vegetation.

FLOOD MANAGEMENT: The ability of the riparian area to provide a flood management function depends on its potential to store or detain floodwaters temporarily. Floodwaters detained in the riparian area infiltrate into the soil and are slowly released downstream. Woody vegetation reduces the velocity of floodwaters by providing resistance, which increases detention time in the riparian area, allowing the water to infiltrate into the soil. Both of these factors reduce downstream flooding. Channelization of streams and armoring of banks (e.g., riprap, walls, concrete) increase the velocity of floodwaters. Although channelization and armoring may reduce local flooding by separating the water resource from its floodplain, these measures often increase the risk of flooding downstream.

THERMAL REGULATION: In Oregon, vegetation on the southern side of an east-west-oriented water resource has the highest potential of providing shade in the summer. The ability of vegetation to provide shade is directly related to the height of the vegetation. In general, tall, woody vegetation provides more shade than herbaceous vegetation. Vegetation overhanging a water resource provides shade, creating microclimates.

WILDLIFE HABITAT: A vegetated riparian area increases the quality of wildlife habitat by providing food, cover, and nesting opportunities. Vertical complexity of vegetation increases the variety of niches available to wildlife. In general, tall, woody vegetation provides more food, cover, and nesting habitat for a variety of wildlife than herbaceous vegetation. Overhanging woody vegetation contributes leaves, woody debris, and insects to the water resource. It also shades the water resource and creates microclimates. Large woody debris in the riparian area provides cover for a variety of small mammals, birds, amphibians, and insects. It can also be transported to the aquatic system in flood events, where it can enhance in-stream fish habitat. More than one type of water resource within or immediately adjacent to the riparian reach increases the

complexity and quality of wildlife habitat. Human-caused disturbance/development within the riparian area directly affects wildlife use. The proximity of human activities may negatively affect sensitive wildlife species that cannot tolerate noise, light, or traffic.

APPENDIX D

SUMMARY OF OFWAM ASSESSMENT CATEGORIES

Wetland functions and characteristics assessed by the Oregon Freshwater Assessment Methodology (OFWAM) are summarized below. The results of the assessment are used to determine the significance of each wetland. For complete assessment information, consult the OFWAM document.

Wetland Functions

WILDLIFE HABITAT: Wetlands provide habitat for many wildlife species. A single wetland often cannot satisfy all requirements for wildlife use, so its proximity to other bodies of water or upland areas is important. Buffers and corridors are also essential for this reason, and they reduce human disturbance. Many species also have special habitat requirements. Good water quality is necessary for amphibians and mammals; structural diversity is important for birds; and a combination of open water and grazing areas is important for waterfowl.

OFWAM evaluates the habitat diversity for species usually associated with wetlands, without emphasizing one particular species. Wetlands assessed by OFWAM can provide diverse habitat for wildlife, habitat for some wildlife species, or have a wildlife habitat function that is lost or not present.

FISH HABITAT: Wetlands that contribute to habitat for fish include areas with dense overhanging vegetation. This vegetation provides shade, cover, and food sources to related waterways and lakes. Wetlands also provide spawning, rearing, and resting opportunities for fish. However, a wetland need not actually contain fish to contribute to fish habitat, because wetlands may perform important functions for fish-bearing waters downstream.

OFWAM evaluates how a wetland contributes to fish habitat in streams, ponds, or lakes associated with a wetland. The questions are suitable for both warmwater and coldwater fish, and no particular species is emphasized. Wetlands assessed by OFWAM have a fish habitat function that is intact, impacted or degraded, or lost or not present.

WATER QUALITY (pollutant removal):

Sediment Trapping: During periods of heavy rainfall, water runoff may cause erosion and increase solids suspended in receiving surface waters. The excess sediment entering water systems can damage aquatic ecosystems. Sediment accumulation in stream bottoms can smother spawning areas and kill aquatic insect larvae. It also can reduce the storage capacity of downstream water supply reservoirs.

Wetlands perform an important function by trapping sediment from waters that pass through them. As water flows through the wetlands, it is slowed by vegetation, and

sediment settles to the bottom before the water moves farther downstream. As much as 90% of the solids suspended in the water may be removed as the water moves through the wetland, resulting in cleaner water entering rivers, lakes, and estuaries.

Nutrient Attenuation: Nitrogen and phosphorus are the two nutrients most often associated with water pollution. They are also main ingredients of fertilizers used on agricultural fields and lawns, and both are found in high concentrations in discharges from sewage treatment plants and livestock operations. Excessive amounts of nitrogen and phosphorus in lakes and slow-moving streams can cause algal blooms and subsequent oxygen deficiencies, which may kill fish and reduce water quality. The processes that occur as a result of excess nutrients are combined under the term “eutrophication.” Within limits, wetlands can reduce nutrient levels so the effects of eutrophication on downstream areas are prevented or reduced.

OFWAM evaluates the potential of a wetland to reduce the impacts of excess nutrients in stormwater runoff on downstream waters. A wetland assessed by OFWAM can have a water quality function that is intact, impacted or degraded, or lost or not present.

HYDROLOGIC CONTROL (flood control and water supply): Wetlands function as natural water storage areas during periods of high runoff and stream flooding. At times, they act as flood regulators by holding floodwaters, then slowly releasing them downstream. This temporary storage reduces the amount of water downstream during floods, thereby reducing peak flows. Through this flood storage mechanism, wetlands associated with tributaries of streams or rivers can prevent water from all tributaries reaching the stream or river at the same time (this is called desynchronization). Wetlands also can act as floodwater “brakes.” For example, water flowing through riverine wetlands during floods is slowed by trees, shrubs, rushes, and other wetland vegetation. Wetlands acting as brakes can reduce flood peaks, thereby reducing flood damage, bank and bed erosion, and other adverse effects caused by fast-moving water.

Wetlands also have long-term water holding abilities. Wetlands may store water for longer periods, sometimes for months. The slow draining of these wetlands to surface water or groundwater as the water level in the wetland recedes may contribute to the maintenance of base flows in streams connected hydrologically to the wetland.

OFWAM evaluates the effectiveness of a wetland to reduce downstream flood peaks and store floodwaters. A wetland assessed by OFWAM can have a hydrologic control function that is intact, impacted or degraded, or lost or not present.

EDUCATION: Field trips to wetlands are an important part of the educational experience, providing students opportunities to learn about ecological principles. OFWAM bases the educational assessment on the accessibility and diversity of the wetlands. Wetlands that provide fish and wildlife habitat and permit access to other natural features allow a broader course of study.

OFWAM evaluates the suitability of a wetland to provide educational opportunity and act as an "outdoor classroom." A wetland assessed by OFWAM can have educational use, potential for educational use, or not be appropriate for educational use.

RECREATION: Many recreational activities take place in and around wetlands. Wetlands associated with open bodies of water also may support boating and fishing. Many people simply enjoy the beauty and sounds of nature and spend time walking in or near wetlands observing plant and animal life.

OFWAM evaluates the suitability of a wetland and associated watercourses for non-powered boating, fishing, and similar recreational activities. A wetland assessed by OFWAM can provide, have the potential to provide, not provide, or not be appropriate for recreational opportunities.

Wetland Characteristics

ENHANCEMENT POTENTIAL: Enhancement potential represents how well a wetland might respond to the mitigation of past environmental impacts. The recovery of a wetland, and in particular its wetland function, depends on the site's hydrology, its soils and substrate, and the presence of environmental buffers surrounding the wetland.

OFWAM evaluates the suitability of a degraded wetland for enhancement. A wetland fulfilling this condition does not provide one or more of the functions assessed by OFWAM. A wetland fulfilling this condition, therefore, would be of lower overall quality than a wetland providing such features as wildlife or fish habitat. A wetland assessed by OFWAM can have high, moderate, or little enhancement potential.

AESTHETIC QUALITY: Although this is a subjective index, it is included to assess the open space and overall pleasing qualities of wetlands to local residents and users. The assessment assumes the user will be visiting the wetland, not just driving by in a car, bus, or on a bicycle. Wetlands can be areas of scenic beauty. Most often they are viewed from along a stream, from a canoe, along a nature trail, or from an overlook. The assessment area may include the entire wetland or only a portion, such as an area clearly visible from a road or stream. Thus, this assessment can be based on an average of several viewpoints or on one outstanding viewpoint.

OFWAM evaluates the visual and aesthetic quality of the wetland. Wetlands can be considered pleasing, moderately pleasing, or not pleasing.

SENSITIVITY TO IMPACT: The wetland's ability to provide ecological function depends on its condition. If past environmental impacts have affected its ability to sustain itself, its ability to recover from future impacts is diminished. Various factors, such as vegetation type, contribute to a wetland's sensitivity. Forested wetland types, for example, are considered particularly sensitive, because their vegetation structure is complex and slow to recover once disturbed. Also, a wetland is considered sensitive to impact if the quantity and quality of its water supply has been altered or degraded, and if

the intensity of adjacent land use suggests the impairment is permanent. Under such circumstances, the wetland will have lost some of its natural capacity to recover from impacts. Small, incremental impacts on sensitive wetlands can cause broader, secondary effects throughout the wetland system. A wetland's resilience depends on whether adverse effects caused by future impacts will be localized or spread throughout the wetland and beyond into other ecosystems. The sensitivity to impact index is an indication of risk to the wetland from future changes in the watershed and land surrounding it.

This index evaluates whether an affected or lost wetland function can be restored at a degraded wetland site. It does **not** evaluate the enhancement potential of changing the vegetation through exotic weed removal, which is considered to be a management issue. Wetland enhancement provides opportunities to connect wetlands and adjacent natural areas, thus creating larger natural systems that provide corridors for animal movement.