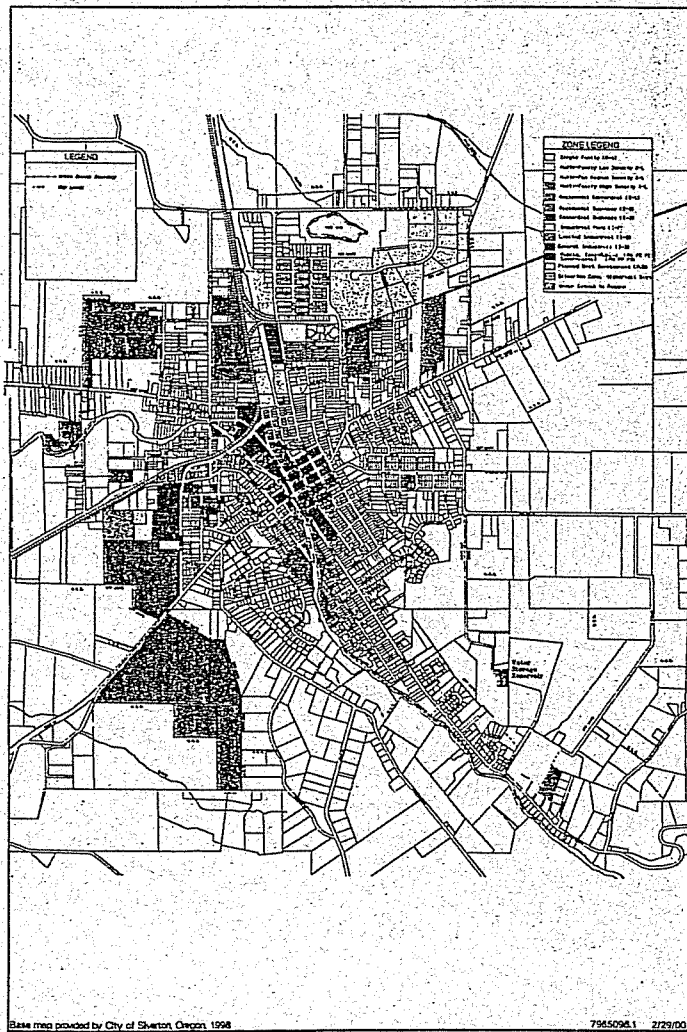


Local Wetland Inventory and Riparian Assessment



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February 29, 2000

DIVISION OF STATE LANDS
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Local Wetland Inventory and Riparian Assessment

APPROVED WETLANDS INVENTORY
Oregon Division of State Lands

Meets LWI standards

Date 2/29/00 Approved by A. Laska

Prepared for

The City of Silverton

Prepared by



Shapiro and Associates, Inc.

February 29, 2000

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1.0 INTRODUCTION

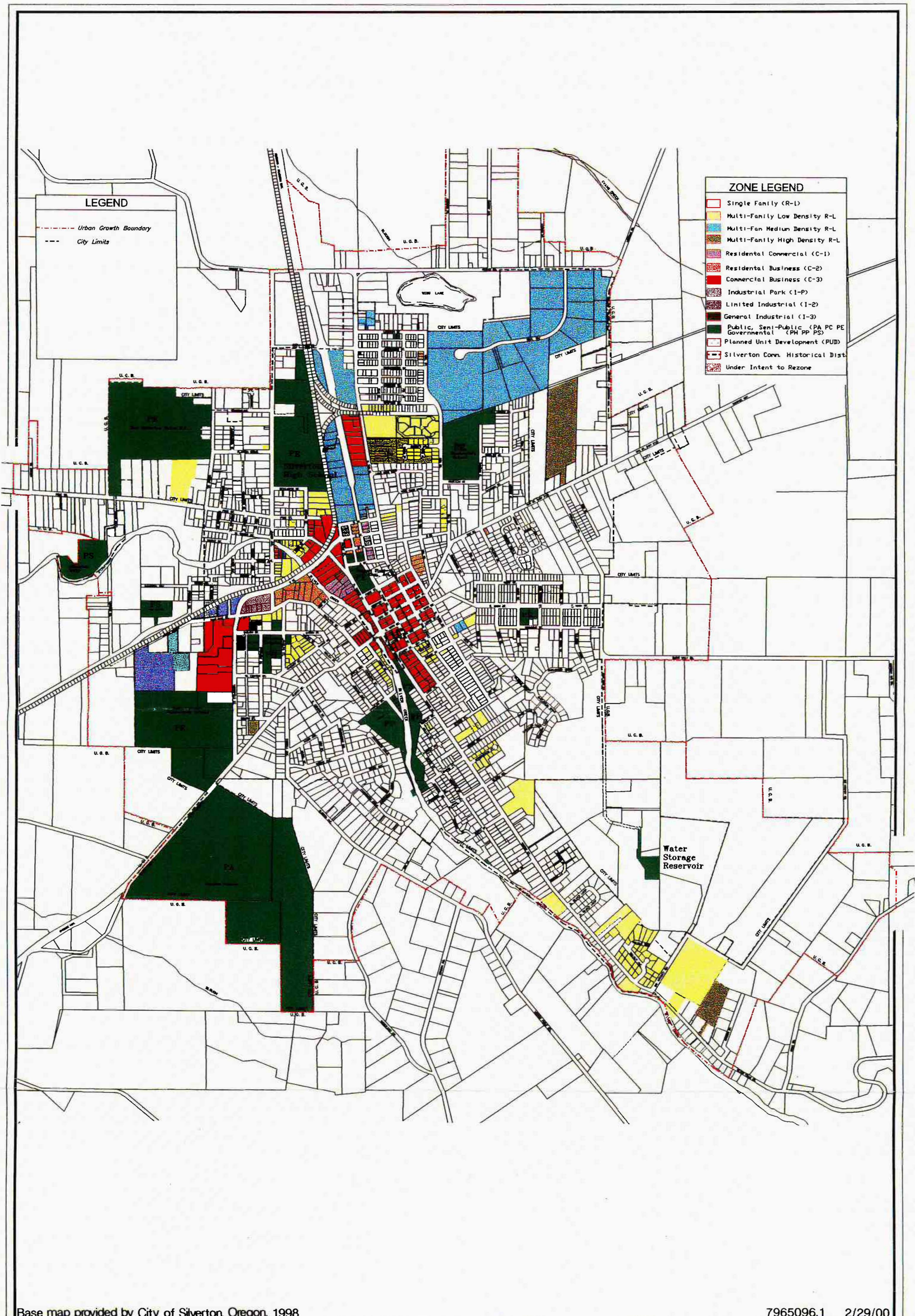
Silverton, like other Willamette Valley communities, is being discovered as a very suitable place to live and develop businesses. As a result, the City is experiencing significant growth pressures. From 1990 to 1997, Silverton experienced a population increase of almost 17%. Population projections anticipate 44% growth by the year 2015. At the present time, the City of Silverton (City) does not have an updated buildable lands inventory; however, the majority of the large, undeveloped parcels available for future development are located within the City's Urban Growth Boundary (UGB, Figure 1). The UGB encompasses 2,553 acres. Wetland fill permit applications have increased in recent years, with several being considered in the near future.

The City is in a period of planning review and is required to inventory Goal 5 resources within the UGB. On March 2, 1998, the City was awarded a 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 Local Wetlands Inventory (LWI) and a Riparian Assessment. An approved LWI will replace the U.S. Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) maps that now provide information on where wetlands are located. The LWI will be incorporated into the statewide wetlands inventory.

On May 6, 1998, the City hired Shapiro and Associates, Inc. (SHAPIRO) to conduct the study using SHAPIRO wetland scientists experienced in conducting LWIs: Dan Cary, Colin MacLaren, John Gordon, and Dale Graff. Mr. Cary, project manager, and Mr. Graff are wetland delineators certified by the U.S. Army Corps of Engineers (COE). Sylvia Jung, a cartographer with experience mapping LWIs, produced the digitized mapping products. Field work was performed between June 3, 1998 and July 9, 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., 1996). This information was used to identify significant wetlands within the City's 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 prepared for the DSL, 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.



Base map provided by City of Silverton, Oregon, 1998

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

FIGURE
1

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 Silverton study area are of the palustrine and riverine classes. 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 riverine classification is composed of wetland and aquatic habitats contained within a stream channel that is not dominated by vegetation. 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 Silverton’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" = 600' (1:7200), the width of a wetland boundary line is approximately 5 feet. 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 Silverton and N.E. Stayton, Oregon NWI maps. Floodplain information was obtained from Silverton and Marion County 100-year floodplain FIRM maps (U.S. Department of Housing and Urban Development, 1979). Silverton and N.E. Stayton, 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 depressed areas, facilitate on-site gathering of data, and complete the assessments.

Marion County 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" = 600' onto seven 11" x 17" sheets. Each sheet covers a section and small portions of surrounding sections, and includes an index map.

A series of color, aerial photographs dated March 18, 1998 were obtained from Spencer B Gross, Inc. for the study area at a scale of 1" = 600' to match the scale of the base map. The aerial photographs were flown at a low elevation for another study for the City, and contact prints were provided for the LWI study. 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. Property boundaries with access permission were identified on the aerial photograph and base map.

3.2 Setting

The City of Silverton is located in the Willamette Valley at the base of the Cascade Range foothills in Marion County, Oregon (Figure 2). It is approximately 10 miles east of Salem and 25 miles south of Portland, at the intersection of Highways 214 (Hillsboro-Silverton Highway) and 213 (Cascade Highway). Silver Creek, which flows along the southwestern base of the Silverton Hills, runs generally northwest through the City. The City was founded in 1854 and incorporated in 1885. The 1996 census listed the City's population as 6,800. Historically, the forest products industry and agriculture have provided the economic base for the City.

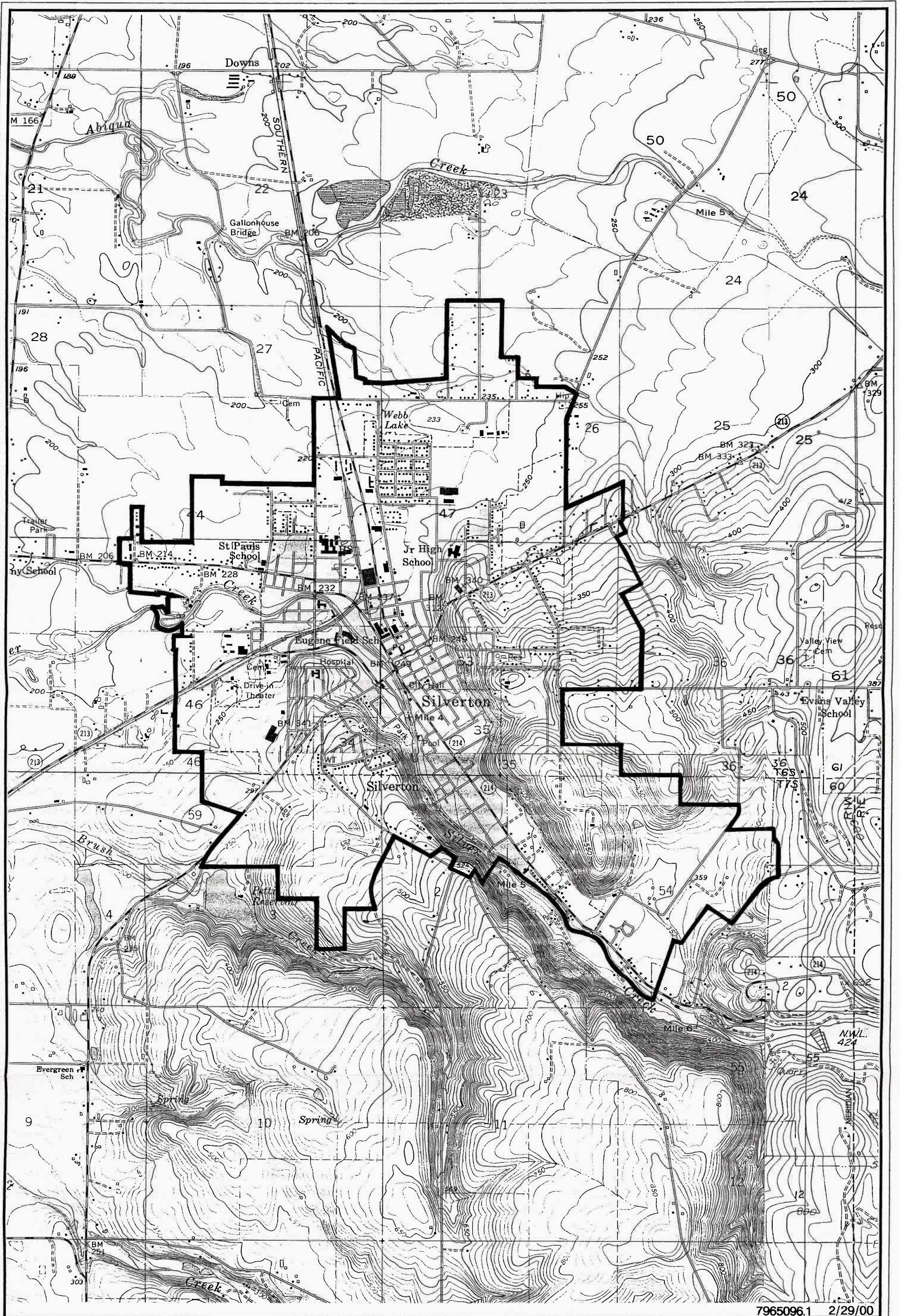
The boundary of the wetland inventory area corresponds with the City's UGB (Figures 1 and 2). Beginning north of the City at Highway 214 and Hobart Road, the boundary runs generally eastward approximately 200 yards north of Hobart Road to Monitor Road, with a northward extension on the eastern side of Highway 214, and another northward extension astride Quarry Avenue. Continuing south on Monitor Road, the boundary turns eastward north of Highway 213, then generally south and eastward, with numerous irregularities to intersect Silver Creek between Division Street and Mountain View Road. The boundary follows Silver Creek downstream (northwest), then crosses west to Eureka Avenue, south on Woodland Drive, and west to Cascade Highway, passing just north of Pettit Reservoir. The UGB continues north and somewhat west to the area of Pine Street and Airport Road, then north and east back to the starting point. The inventory area totals 2,553 acres.

3.3 Topography

Silverton includes a variety of topographic characteristics. The northwestern part of the City is on flat or very slightly sloping land of the Willamette Valley. The southeastern part of the City, including the commercial district and much of the residential area, is in a narrow valley in a gorge between two promontories that rise abruptly on both sides of Silver Creek. Both of these features have steep escarpments from river level (250 feet, National Geodetic Vertical Datum [NGVD]) to 550 feet. The promontory on the northeastern side of the creek slopes more gradually on the sides away from the creek. The northern slope is the southern part of the Evans Creek drainage, and gradually melds into the floor of the Willamette Valley.

The promontory on the southwestern side of the creek forms a broad ridge that continues southeast into the Cascade Range. On the western end, it declines gradually to the Willamette Valley floor.

Silver Creek flows through the gorge between these two landforms. Bottomland in the gorge is approximately 1,000 feet wide, flat, with a gentle slope to the northwest, in the direction of the creek's flow.



Location and generalized topography of the City of Silverton Local Wetlands Inventory study area, Oregon (U.S.G.S. 7.5-minute quadrangles, 1:24000, Silverton 1956 photorevised 1985, Scotts Mills 1954 photorevised 1985, Drake Crossing provisional 1985, and Stayton NE 1969, Oregon).

FIGURE
2

3.4 Hydrology and Drainage Basins

Silverton is in the Molalla-Pudding sub-basin of the Willamette River drainage basin. The inventory area contains all or parts of five smaller drainage sub-basins (Figure 3). These small drainage basins form the basis of organization for the inventory. Basin boundaries were determined by analyzing the topography of the inventory area as depicted on USGS topographic maps.

Silverton Creek basin (SC), Silverton's central drainage basin, contains Silverton Creek as its main hydrologic feature. Wetlands in this basin are designated as SC-x. Silverton Creek flows through the City and joins the Pudding River approximately two miles (three river miles) west of the inventory area.

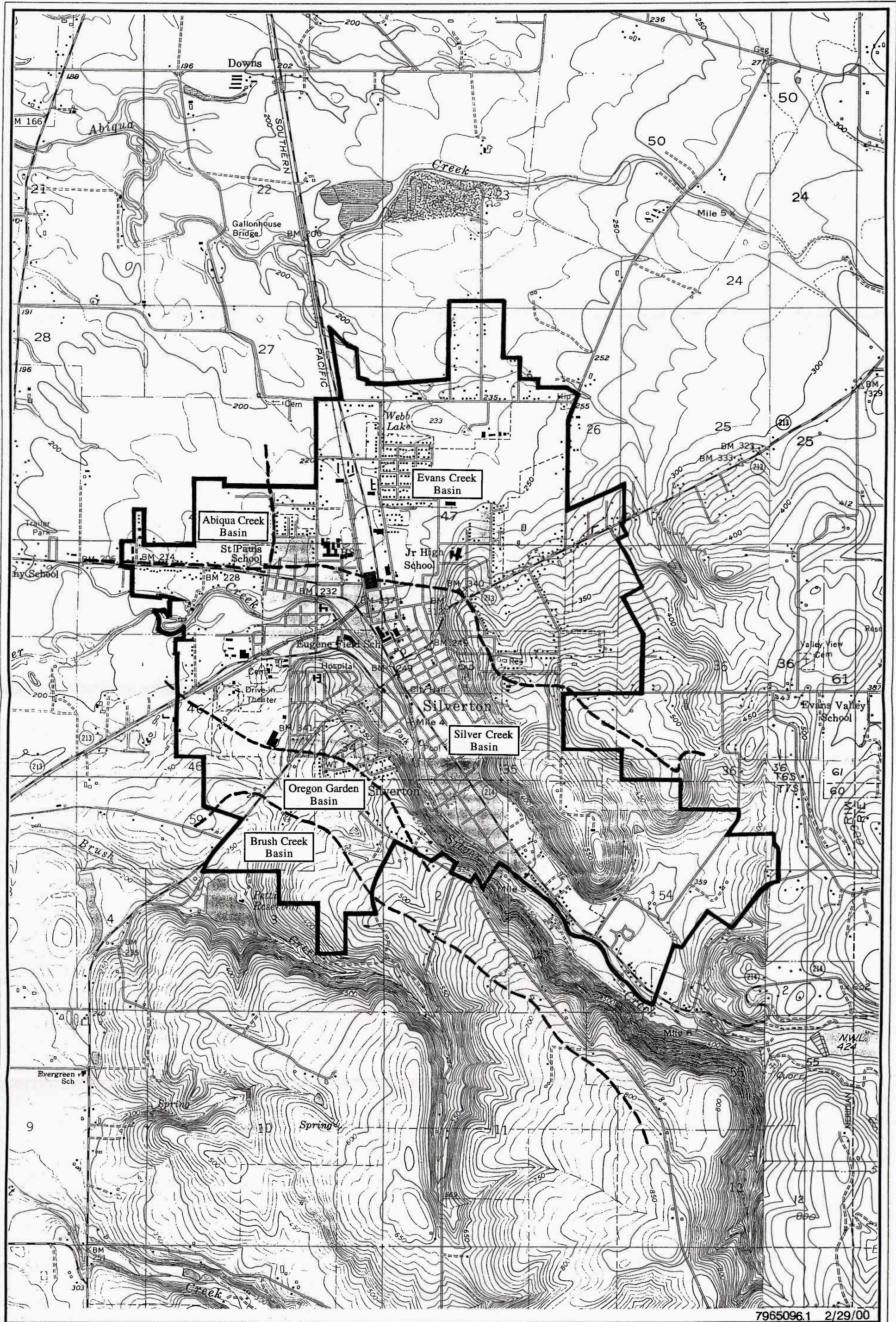
Inside the inventory area, Silverton Creek is approximately 45 to 50 feet wide, and runs between one to several feet deep. The average annual flow is 208 cubic feet per second (cfs; USGS data from Oregon Water Resources Dept., based on data from 1964 to 1968 and 1971 to 1979). The streambed is composed primarily of unconsolidated silt, sand, gravel, cobbles, and boulders. In some places, bedrock is exposed. A concrete dam in the City Park, at approximately river mile 4.2, impounds water to a depth of approximately 10 feet.

The southeastern end of the inventory area contains a small drainage basin, estimated to be approximately 1 square mile in size. This small drainage basin includes several excavated ditches in agricultural fields and two water storage reservoirs that total approximately 9.8 acres. These waters all accumulate in a small, unnamed, apparently intermittent tributary of Silver Creek that is contained in a pipe for several hundred yards before discharging into the creek. This basin was included as part of the Silver Creek basin.

Evans Creek basin (EC) is on the northern side of the Silver Creek basin. Evans Creek is a small waterway that flows along the northeastern and northern side of Silverton. It flows into Abiqua Creek approximately one-half mile northwest of the inventory area. This drainage basin is estimated to be approximately 2 square miles in area, and contains numerous excavated ditches in agricultural land and along streets and roads. Webb Lake, whose surface area is approximately 11.49 acres, is included in this basin. It is formed by an earthen dam just south of Hobart Road. Wetlands in the Evans Creek basin are designated EC-x.

Abiqua Creek basin (AC) is north of the Evans Creek basin. Abiqua Creek is outside the inventory area, but a small section of the basin, including a wetland, is inside the boundary. This wetland is designated AC-1.

Oregon Garden basin (OG) is on the southern side of the Silver Creek basin and contains a small stream. This unnamed tributary of Silver Creek is significant because it passes through a portion of the Oregon Garden Project, the Robert Frost Elementary School campus, and other school district properties. The drainage basin for this stream is small, rather linear, and about 1.5 miles long. In the upper part, above the Oregon Garden Project, it contains two small ponds, both of which are formed behind earthen dams. Wetlands in this basin are designated OG-x.



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

FIGURE 3

Brush Creek basin (BC) is on the southern edge of the Oregon Garden basin. Brush Creek is outside the inventory area, but a small portion of the basin, including a wetland fed by a small, unnamed tributary, are inside the boundary. This wetland is designated BC-1.

3.5 Soils

3.5.1 Overview

Most of the soils in the study area were formed in mixed or unsorted alluvium, silty and clayey alluvium, and colluvium of volcanic origins. Alluvium is unconsolidated sediments deposited by streams. Colluvium refers to unconsolidated deposits on a slope or at the foot of a cliff, brought there by mass wasting. The term "mixed" means the soil particle sizes are generally unsorted.

There are three major soil associations mapped in the study area: The Cloquato-Newberg-Chehalis association (map unit 1), the Concord-Dayton-Amity association (map unit 5), and the Nekia-Jory association (map unit 8). Twenty-nine soil types are mapped within the Silverton UGB. These soils are shown with their mapping codes in Table 1. In addition, hydric soils and soils with hydric inclusions and wet spots are also indicated in the table. Mapping units are shown in Figure 4.

3.5.2 Soil Association Descriptions

The Cloquato-Newberg-Chehalis association consists of well-drained and somewhat excessively-drained silty clay loams to sandy loams that formed in mixed alluvium on nearly level bottom lands of the Willamette River and its tributaries. It is mapped in the west-central portion of the study area adjacent to Silver Creek. Cloquato soils make up about 45% of the association, Newberg soils about 25%, and Chehalis soils (not identified within the study area) about 13%. The remaining percentage is made up of Camas, McBee, and Wapato soil series, and small areas of Alluvial land. Cloquato, Newberg, and Camas soils are subject to frequent stream overflow. Soils of the association are used for pasture, hay, small grains, grass seed, fruits, vegetables, and wildlife habitat.

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 in the northern portion of the study area, where the majority of the hydric soils are located. 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 wildlife habitat.

The Nekia-Jory association consists of well-drained silty clay loams over clay on 2 to 50% slopes. The old soils of this association are reddish-brown in color, having formed in colluvium from volcanic basalt and tuffs. The association is mapped in the east-central and southeastern portion of the study area. The Nekia soils comprise about 65% of the association. Jory soils

Table 1. Soil Types within the Silverton UGB

Soil Type	Map Code	Hydric*	Drainage Class	Erosion Hazard
Abiqua silty clay loam	AbA	No ¹	Well-drained	Slight
Amity silt loam	Am	No ¹	Somewhat poorly-drained	None or slight
Clackamas gravelly loam	Ck	No ¹	Somewhat poorly-drained	Slight
Cloquato silt loam	Cm	No	Well-drained	Slight to moderate
Concord silt loam	Co	Yes	Poorly-drained	Slight
Dayton silt loam	Da	Yes	Poorly-drained	Slight
McAlpin silty clay loam	MaA	No ¹	Moderately well-drained & somewhat poorly-drained	None or slight
McBee silty clay loam	Mb	No ¹	Moderately well-drained	Moderate
Nekia silty clay loam, 2 to 7% slopes	NeB	No ²	Well-drained	Slight
Nekia silty clay loam, 7 to 12% slopes	NeC	No ²	Well-drained	Moderate
Nekia silty clay loam, 12 to 20% slopes	NeD	No	Well-drained	Moderate
Nekia silty clay loam, 20 to 30% slopes	NeE	No	Well-drained	Severe
Nekia silty clay loam, 30 to 50% slopes	NeF	No	Well-drained	Severe
Nekia stony silty clay loam	NkC	No	Well-drained	Moderate
Nekia very stony silty clay loam, 2 to 30% slopes	NsE	No	Well-drained	Slight to moderate
Nekia very stony silty clay loam, 30 to 50% slopes	NsF	No	Well-drained	Severe
Newberg fine sandy loam	Nu	No	Somewhat excessively drained	Moderate
Newberg silt loam	Nw	No	Somewhat excessively drained	Moderate
Salem gravelly silt loam	Sa	No	Well-drained	None
Silverton silt loam, 2 to 12% slopes	SuC	No	Well-drained	Slight
Silverton silt loam, 12 to 20% slopes	SuD	No	Well-drained	Moderate
Stayton silt loam	SvB	No ²	Well-drained	Moderate
Terrace escarpments	Te	No	Not listed	Not listed
Waldo silty clay loam	Wa	Yes	Poorly-drained	None
Wapato silty clay loam	Wc	Yes	Poorly-drained	None or slight
Witzal very stony silt loam	WtE	No	Well-drained	Moderate to high
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

*Notes: 1 - may have inclusions of hydric soils; 2 - may contain wet spots

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

make up about 20%, but are not mapped within the study area. The remainder of the association is made up of areas of Stony rock land, Salkum, Abiqua, Waldo, Stayton, Silverton, Santiam, and Witzel soils. Soils of this unit are used mainly for woodland, small grains, orchards, pasture, hay, and grass seed.

3.5.3 Hydric Soil Descriptions

Hydric soils and soils with hydric inclusions and wet spots are indicated in Table 1 and are color coded in Figure 4. The following are descriptions of hydric soils found within the study area.

Concord silt loam 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 heavy silt loam (10YR 4/1) and light silty clay (10YR 5/1) and is about 10 inches thick. The soil is classified as fine, montmorillonitic, mesic. Permeability is slow.

Courtney gravelly silty clay loam consists of poorly-drained soils found on gravelly alluvial terraces, in shallow depressions, and in narrow drainageways. These soils formed in alluvial deposits of varying ages. A representative profile of this series includes a black (10YR 2/1) gravelly silty clay loam surface layer about 4 inches thick; a very dark gray (7.5YR 3/0) gravelly silty clay loam subsurface layer about 8 inches thick; and a dark gray (10YR 4/1) gravelly clay subsoil layer about 12 inches thick. The soil is classified as fine, montmorillonitic, noncalcareous, mesic. Permeability is very slow.

Dayton silt loam, 0-2% slopes, 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) clay and grayish brown (10YR 5/2) clay. The soil is classified as fine, montmorillonitic, mesic. Permeability is very slow.

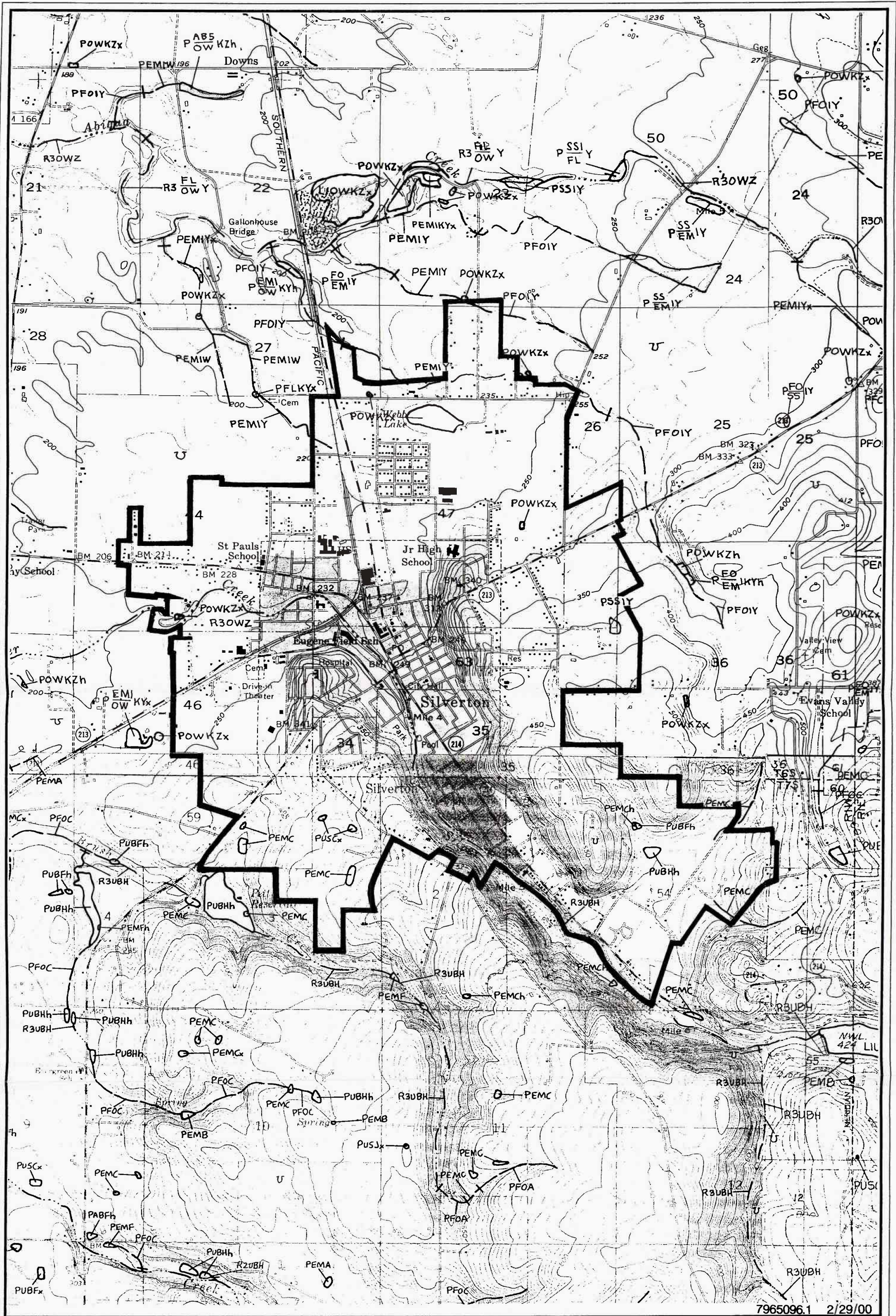
Waldo silty clay loam consists of poorly-drained soils that have formed in alluvium on nearly level strips along streams and drainageways of the Salem, Waldo, and Silverton Hills. The surface layer is very dark grayish brown (10YR 3/2) silty clay loam about 7 inches thick. The subsoil layer, 36 inches thick, is very dark grayish brown (10YR 3/2) silty clay loam in the upper part, dark gray (N 4/0) clay in the middle part, and gray (N 5/0) silty clay in the lower part. The soil is classified as fine, mixed noncalcareous, mesic. Permeability is slow.

Wapato silty clay loam consists of poorly-drained soils occurring in depressions and overflow channels on flood plains formed in mixed alluvium. In a typical profile, the surface layer is very dark brown (10YR 2/2) silty clay loam about 16 inches thick. The subsoil is very dark grayish brown (10YR 3/2) silty clay loam about 20 inches thick. The soil is classified as fine-silty, mixed, noncalcareous, mesic. Permeability is moderately slow.



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

FIGURE
4



National Wetland Inventory designations of the City of Silverton Local Wetlands Inventory study area, Oregon (U.S. Fish and Wildlife Service, Silverton, Scotts Mills, Drake Crossing, and Stayton NE, Oregon, 7.5-minute quadrangles, 1:24000, based on 1981 and 1982 color infrared photography).

FIGURE 5

3.6 Vegetation

3.6.1 Historical Overview

Silverton 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 human modification.

According to Franklin and Dyrness, four major vegetation communities probably existed in the Silverton area before the City was founded: oak woodland, coniferous forest, grassland, and riparian communities. Remnants of oak woodland, coniferous forest, and riparian 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 Silverton is a portion of the Oregon Garden site and land east of the Oregon Garden site.

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 trees on the steep slopes on both sides of Silver Creek are similar to this community type.

Grassland

Franklin and Dyrness published figures showing that grasslands were probably a very minor constituent of the vegetation in the Silverton area at the middle of the 19th century. Further, all grasslands in the Willamette Valley are considered to have been modified by human activities, some of which occurred before Euroamerican settlement. At the present time, the closest approximation to grassland in the inventory area is pasture land, mowed fields, and open areas that support predominantly herbaceous vegetation.

Riparian

Riparian communities were dominated by black cottonwood (*Populus balsamifera*) and Oregon ash (*Fraxinus latifolia*). Various willow (*Salix*) species were common in this association. Cottonwood and ash woodlands are still found in Silverton. Remnant trees of this type are found along Silver Creek in the southeastern and northwestern parts of the City.

Wetland

Vegetation in Silverton's wetlands is diverse, varying from grasses and other herbaceous plants to trees. 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 quite common in wetland areas of the Evans Creek basin. Yellow monkeyflower (*Mimulus guttatus*) grows profusely in the wetlands upstream from the Oregon Garden Project. Nearly all of the wetlands in Silverton are PEM (refer to Section 2.2.5, which explains the Cowardin classification).

In Silverton, the palustrine scrub/shrub (PSS) and forest (PFO) are often found intermingled. Major scrub/shrub species include Pacific willow (*Salix lasiandra*), Scouler willow (*S. scouleriana*), Sitka willow (*S. sitchensis*), and Douglas' hawthorn (*Crataegus douglasii*). Wetland trees are limited to Oregon ash and black cottonwood. Wetlands on the southwestern edge of the inventory area, on the campus of Robert Frost Elementary School, are examples of scrub/shrub and forested wetland.

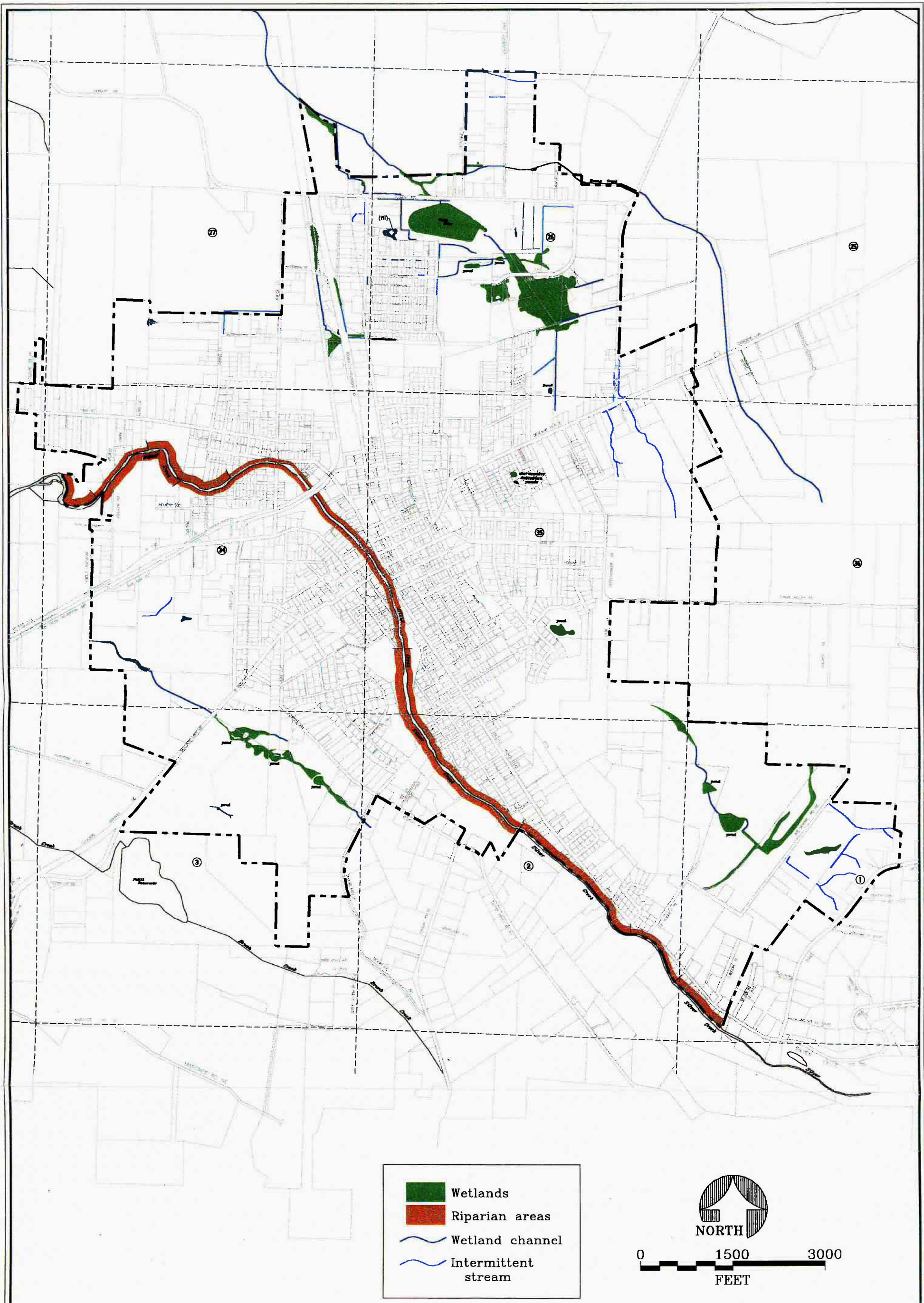
4.0 WETLAND FINDINGS

4.1 Wetland Classification and Location

4.1.1 Wetland Types and Classification

The USFWS, as part of the NWI program, has mapped wetland in the study area (Figure 5). The NWI maps are generated primarily on the basis of interpretation of relatively small-scale, color infrared, aerial photographs (for example, scale of 1" = 4,833' [1:58000]) with limited ground reconnaissance conducted to confirm the interpretations. Cowardin classifications of wetlands identified by the NWI are found in Table 2. A number of wetland areas identified through the LWI within the Silverton study area were not mapped by the NWI program.

The palustrine system encompasses the greatest extent of wetlands in the study area. The largest areas of palustrine wetlands occur in association with the drainages and relatively flat areas in the northern portion of the study area mapped as hydric soils. Perennial and intermittent drainages, such as Silver Creek and Evans Creek, are in this system.



Base map from Marion County, 1998

7965096.1 2/29/00

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

FIGURE 6

Table 2. U.S. Fish and Wildlife Wetland Classes Mapped by the NWI within the Silverton UGB

Code	Cowardin Classification of NWI Mapped Wetlands within the Silverton UGB
PEMC	palustrine, emergent, seasonally flooded
PEMCh	palustrine, emergent, seasonally flooded, diked/impounded
PEM1Y	palustrine, emergent, persistent, saturated/semipermanent/seasonal
POWKZx	palustrine, open water, artificially flooded, intermittently exposed/permanent
PUBFh	palustrine, unconsolidated bottom, semipermanently flooded, diked/impounded
PUBHh	palustrine, unconsolidated bottom, permanently flooded, diked/impounded
PSS1Y	palustrine, scrub/shrub, broad-leaved deciduous, saturated/semipermanent/seasonal
PUSC _x	palustrine, unconsolidated shore, seasonally flooded, excavated
R3UBH	riverine, upper perennial, unconsolidated bottom, permanently flooded
R30WZ	riverine, upper perennial, open water, intermittently exposed/permanent

Source: Cowardin, et al., 1979

Wetlands that are not distinct drainage channels, for example, in agricultural fields or undeveloped open areas make up the majority of wetland acreage mapped in the inventory. These wetlands are vegetated by grasses and other non-woody, low-growing plants. These wetlands may experience flooding during the winter months by ponding, or other inundation by surface water. They may be saturated for all or only a part of the growing season, depending on their proximity to a water source. These wetlands are classified as palustrine emergent (PEM) wetlands.

Vegetated creeks, vegetated excavated ditches, or other distinct vegetated drainage channels make up the second largest category of mapped wetlands. The length of time during which Euroamericans have settled in the Silverton area has resulted in a high degree of modification to the natural drainage of the area. Evans Creek has been excavated and realigned. Numerous drainage ditches have been excavated to modify the drainage in the area, particularly on the northern side of the City. Many of these drainage channels were excavated in hydric soils, hold water long enough, and have been unmaintained for a sufficient period that hydrophytic (wetland) vegetation has become established in them. These wetlands also are classified as palustrine emergent (PEM) wetlands.

Areas adjacent to creeks, ditches, or other water resources that support growths of willows and other shrubby hydrophytes comprise the third category of mapped wetlands. These wetlands are generally found in association with surface water. They are classified as palustrine scrub/shrub (PSS) wetlands.

The inventory area includes six ponds with unvegetated, open water. These ponds are classified as palustrine open water (POW) wetlands.

4.1.2 Location of the Wetlands

Few wetland areas were mapped by NWI within the urbanized areas of Silverton (see Figure 5). This is likely because most wetlands in the project area are associated with drainages and the drainages are filled, drained, or placed in culverts through the most developed portions of the City. Also, smaller wetlands are not readily identifiable at the scale of mapping used in the NWI.

Figure 6 illustrates the 20 wetland areas identified by the LWI. Table 3 lists each wetland with its area, and summarizes the wetland classification. Total wetland acreage is approximately 54.12 acres. Most of the wetlands mapped in the inventory area are in the Evans Creek basin, one of the five small drainage areas described in section 3.4.

One small wetland of approximately 0.15 acre (wetland code BC-1) is located within the Brush Creek drainage, in the southwestern corner of the study area. This hillside seep has been excavated, and a small dam forms a tiny ponded area. This wetland is less than 1% of the wetlands in the inventory area.

Wetlands associated with the Oregon Garden drainage (wetland codes OG-1, OG-2, and OG-3) on the southern side of the inventory area total 6.5 acres, or 12% of the wetlands in the inventory area. This wetland system includes two small ponds and other wetlands in close proximity to the stream.

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

Wetland Code	Drainage Basin	Significant Wetland	USFWS Wetland Classification				Total Area (acres)
			PEM	PFO	PSS	POW	
AC-1	Abiqua Cr.	No	0.19				0.19
BC-1	Brush Cr.	No	0.15				0.15
EC-1	Evans Cr.	No	2.88				2.88
EC-2	Evans Cr.	No	0.50				0.50
EC-3	Evans Cr.	Yes	0.10			11.49	11.59
EC-4	Evans Cr.	Yes	6.32			0.11	6.43
EC-5	Evans Cr.	No		1.03			1.03
EC-6	Evans Cr.	Yes	0.84		0.90		1.74
EC-7	Evans Cr.	No	0.04				0.04
EC-8	Evans Cr.	No	0.24				0.24
EC-9	Evans Cr.	Yes	9.89		1.92	0.51	12.32
OG-1	Silver Cr.	Yes	0.20		0.62		0.82
OG-2	Silver Cr.	No	0.12				0.12
OG-3	Silver Cr.	Yes	4.96			0.60	5.56
SC-1	Silver Cr.	No				0.19	0.19
SC-2	Silver Cr.	No				0.94	0.94
SC-3	Silver Cr.	Yes	1.23			0.59	1.82
SC-4	Silver Cr.	Yes	0.01			2.07	2.08
SC-5	Silver Cr.	No	4.57				4.57
SC-6	Silver Cr.	No	0.91				0.91
TOTALS			33.15	1.03	3.44	16.5	54.12

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

These wetlands form an almost continuous strip in the steeper, upper portions of the drainage. The drainage opens onto flatter ground at the upper end of the Oregon Garden Project. The stream then crosses the Cascade Highway and flows through agricultural fields in excavated and realigned channels. Before leaving the inventory area, the creek channel returns to a more natural state, with meanders and side channels and significant woody vegetation adjacent to it.

The Evans Creek basin on the northern side of the inventory area has wetlands that total 36.8 acres, including Webb Lake. This is 68% of the wetlands in the inventory area. Most of the wetlands in this basin are in the undeveloped portion of Silverton Industrial Park. The remainder are predominantly modified creek channels and excavated drainage ditches.

The basin on the southeastern corner of the inventory area includes two ponds, wetlands in agricultural fields, and an assortment of excavated ditches that combine for a total of 9.38 acres of wetlands, 17% of the total wetlands in the inventory area.

Wetland SC-2 was mapped as an isolated hydrologic feature. It is a small, constructed pond on top of the hill in the southeastern part of Silverton. The pond water drains through a pipe and eventually into Silver Creek. The total area of this wetland is 0.94 acre, or 2% of the mapped total.

One small, agricultural wetland (wetland code AC-1) was located in the Abiqua Creek drainage in the northwestern corner of the inventory area. This wetland is located north of the new Silverton High School, and is approximately 0.19 acre in size (less than 1% of the total wetlands mapped).

4.2 Oregon Freshwater Wetland Assessment Methodology Results

Results of the OFWAM are summarized in Table 4. The functional level of each assessed characteristic for each wetland is shown. 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. Data forms for each wetland are provided in Appendix B. This table is useful primarily for obtaining an overview of the current and potential functional status of each wetland. More detailed information (individual OFWAM data sheets) should be consulted before making decisions regarding any wetland.

4.3 Locally Significant Wetlands

Five wetlands mapped within the inventory area met the locally significant wetland criteria (Table 5). Four wetlands met the criteria by scoring the highest rank on the wildlife habitat assessment (provides diverse wildlife habitat). These wetlands are: EC-3 (Webb Lake); OG-3 (wetlands within and around Oregon Garden); and SC-3 and SC-4 (two excavated ponds located at the eastern end of the inventory area). EC-6 (wetlands in the junction of the railroad in the northwestern portion of the inventory area) scored the highest rank for hydrologic control function.

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

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)
EC-1	Provides Limited	Impacted	N/A	Impacted	Impacted	Potential	Potential	Moderate	Not Pleasing	Moderate
AC-1	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Potential	Low	Moderately Pleasing	Moderate
BC-1	Provides Limited	N/A	N/A	Not Present	Impacted	Potential	Potential	Moderate	Moderately Pleasing	Moderate
EC-2	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Moderate	Moderately Pleasing	Moderate
EC-3	Provides Diverse	N/A	Impacted	Impacted	Impacted	Inappropriate	Inappropriate	N/A	Not Pleasing	Moderate
EC-4/EC-9	Provides Limited	Impacted	N/A	Intact	Intact	Inappropriate	Potential	High	Pleasing	Moderate
EC-5	Provides Limited	N/A	N/A	Impacted	Impacted	Potential	Inappropriate	Moderate	Not Pleasing	Moderate
EC-6	Provides Limited	N/A	N/A	Intact	Intact	Potential	Potential	Moderate	Not Pleasing	Moderate
EC-7	Provides Limited	Impacted	N/A	Impacted	Impacted	Inappropriate	Potential	Low	Moderately Pleasing	Moderate
EC-8	Provides Limited	N/A	N/A	Impacted	Impacted	Inappropriate	Inappropriate	Low	Not Pleasing	Moderate
OG-1	Provides Limited	Intact	N/A	Intact	Impacted	Potential	Potential	Moderate	Moderately Pleasing	Moderate
OG-2	Provides Limited	Impacted	N/A	Impacted	Impacted	Potential	Inappropriate	Moderate	Not Pleasing	Moderate
OG-3	Provides Diverse	Impacted	Impacted	Intact	Impacted	Provides	Provides	N/A	Moderately Pleasing	Moderate
SC-1	Provides Limited	N/A	Impacted	Not Present	Impacted	Provides	Potential	Moderate	Moderately Pleasing	Moderate
SC-2	Provides Limited	N/A	Impacted	Not Present	Impacted	Provides	Potential	Moderate	Moderately Pleasing	Moderate
SC-3	Provides Diverse	N/A	Impacted	Impacted	Impacted	Inappropriate	Inappropriate	N/A	Moderately Pleasing	Moderate
SC-4	Provides Diverse	N/A	Impacted	Impacted	Impacted	Inappropriate	Inappropriate	N/A	Moderately Pleasing	Moderate
SC-5	Provides Limited	N/A	N/A	Not Present	Impacted	Inappropriate	Inappropriate	Moderate	Moderately Pleasing	Moderate
SC-6	Provides Limited	N/A	N/A	Impacted	Not Present	Inappropriate	Inappropriate	Low	Moderately Pleasing	Moderate

Note: N/A = Not applicable for this wetland

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
EC-3	<ul style="list-style-type: none"> • Scored the highest rank (OFWAM) for Wildlife Habitat function 	
EC-4/EC-9	<ul style="list-style-type: none"> • Scored the highest rank (OFWAM) for Water Quality • Scored the highest rank (OFWAM) for Hydrologic Control function 	
EC-6	<ul style="list-style-type: none"> • Scored the highest rank (OFWAM) for Water Quality • Scored the highest rank (OFWAM) for Hydrologic Control function 	
OG-1	<ul style="list-style-type: none"> • Scored the highest rank (OFWAM) for Fish Habitat function • Scored the highest rank (OFWAM) for Water Quality 	
OG-3	<ul style="list-style-type: none"> • Scored the highest rank (OFWAM) for Wildlife Habitat function • Scored the highest rank (OFWAM) for Water Quality • Wetland is specifically protected as a wetland resource in a recognized federal, state, or local management plan, e.g., for a park, refuge, or scenic river 	<ul style="list-style-type: none"> • Oregon Garden
SC-3	<ul style="list-style-type: none"> • Scored the highest rank (OFWAM) for Wildlife Habitat function 	
SC-4	<ul style="list-style-type: none"> • Scored the highest rank (OFWAM) for Wildlife Habitat function 	

5.0 RIPARIAN FINDINGS

The riparian inventory and assessment was conducted on the main stem of Silver Creek, using the procedures in the Riparian Guide. The riparian areas on each side of Silver Creek 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 tree dominating the area. Each segment or riparian reach was coded as to the side of the stream (looking downstream; right side [R] and left side [L]) and its sequential number, with number 1 being the most upstream. The right side of the stream was divided into nine reaches, the left side into five. The longest reach was approximately 3,600 feet long.

The width of each reach was determined by the potential height of the dominant tree species growing in it. Five tree species dominated portions of the riparian area. The species and their potential heights (which are also the width of the riparian area according to this assessment method) are Douglas-fir (120 feet), black cottonwood (120 feet), bigleaf maple (90 feet), red alder (65 feet), and Oregon white oak (60 feet). The assigned widths of the reaches varied, therefore, from 60 feet to 120 feet, depending on the dominant tree species. Actual riparian widths varied from 0 to 120 feet, and were narrowest in the downtown area.

A broad variation in the width and quality of the riparian reaches was recorded during the riparian assessment (Table 6 summarizes the assessment findings). This variation is not surprising because of the extensive historical alteration of the stream corridor from various urban encroachments. The character of the reaches ranges from those that are covered completely with impermeable surface (such as downtown Silverton) to those that are almost completely undeveloped and retain significant natural characteristics (such as the reach upstream from the park, on the left bank).

6.0 SUMMARY

Silverton's Goal 5 wetland resource inventory has been completed in compliance with guidance from the DSL that governs Local Wetland Inventories. The resulting maps are more complete and of greater resolution and accuracy than the NWI maps that were previously used by the City to determine the location of possible wetlands. The inventory is a tool that can be used by the City to make informed planning decisions.

Twenty wetland areas, totaling 54.12 acres, were identified by the LWI. The largest single wetland is 12.32 acres. The majority (61%) of wetland acreage mapped in the inventory is palustrine emergent wetland. Most of these wetlands are not directly associated with streams, ditches, or other discrete drainages. 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. Streams, ditches, or other discrete drainages that support wetland plants make up the second largest category of mapped palustrine emergent wetlands.

Table 6. 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
SC-R-1	120	120	1,050	Med	High	High	High
SC-R-2	80	0	1,200	Low	Low	Low	Low
SC-R-3	120	0	2,500	Med	Low	High	Med
SC-R-4	90	90	3,600	Low	Low	Low	Low
SC-R-5	70	70	3,000	Med	Low	High	Med
SC-R-6	90	50	1,575	Med	Low	High	Med
SC-R-7	N/A	0	1,690	High	Low	High	High
SC-R-8	60	0	1,200	Med	Low	Low	Low
SC-R-9	120	120	1,000+	High	High	Med	High
SC-L-1	90	0	3,300	Low	Low	Low	Low
SC-L-2	120	120	400	Low	Low	Low	Low
SC-L-3	60	60	3,000	Med	Low	High	High
SC-L-4	65	65	2,400	Med	Low	High	High
SC-L-5	120	120	1,875	Med	Low	High	High

Palustrine scrub/shrub and forested wetlands comprise the third category of mapped wetlands. These wetlands generally are found in association with surface water that supports willows, hawthorn, ash, and cottonwood. The inventory also includes six ponds with unvegetated open water. These ponds are classified as palustrine open water (POW) wetlands.

Five wetlands were determined to be locally significant. Four wetlands are significant because they may provide diverse wildlife habitat. One wetland may provide significant hydrologic control in a small part of the inventory area.

Assessment of the riparian corridor along Silver Creek resulted in a determination of 14 riparian reaches, the longest being approximately 3,600 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 Silverton's UGB have been affected significantly by development, whether residential, commercial, industrial, or agricultural. The wetlands and riparian areas within the study area still serve limited but 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.D.A. Soil Conservation Service. 1989. Oregon Hydric Soils by Counties.



Appendix A

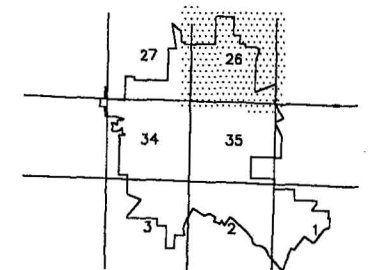
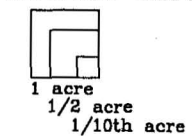
Wetland and Riparian Inventory Section Maps

CITY OF SILVERTON LOCAL WETLAND INVENTORY

LEGEND

- | | | | |
|------------------|------------------------------|---------|-----------------------|
| | Wetlands | | Site access granted |
| EC-6C | Wetland label | 1600 | Parcel number |
| 8. | Sample site | - - - - | Section line |
| | Riparian areas | | Urban Growth Boundary |
| SC-L-5 | Riparian label | | Wetland channel |
| | Wetlands (DSL DET) | | Intermittent stream |
| DSL DET #31-0186 | DSL # | | |
| | Mitigation wetlands (DSL RF) | | |

Wetland acreage



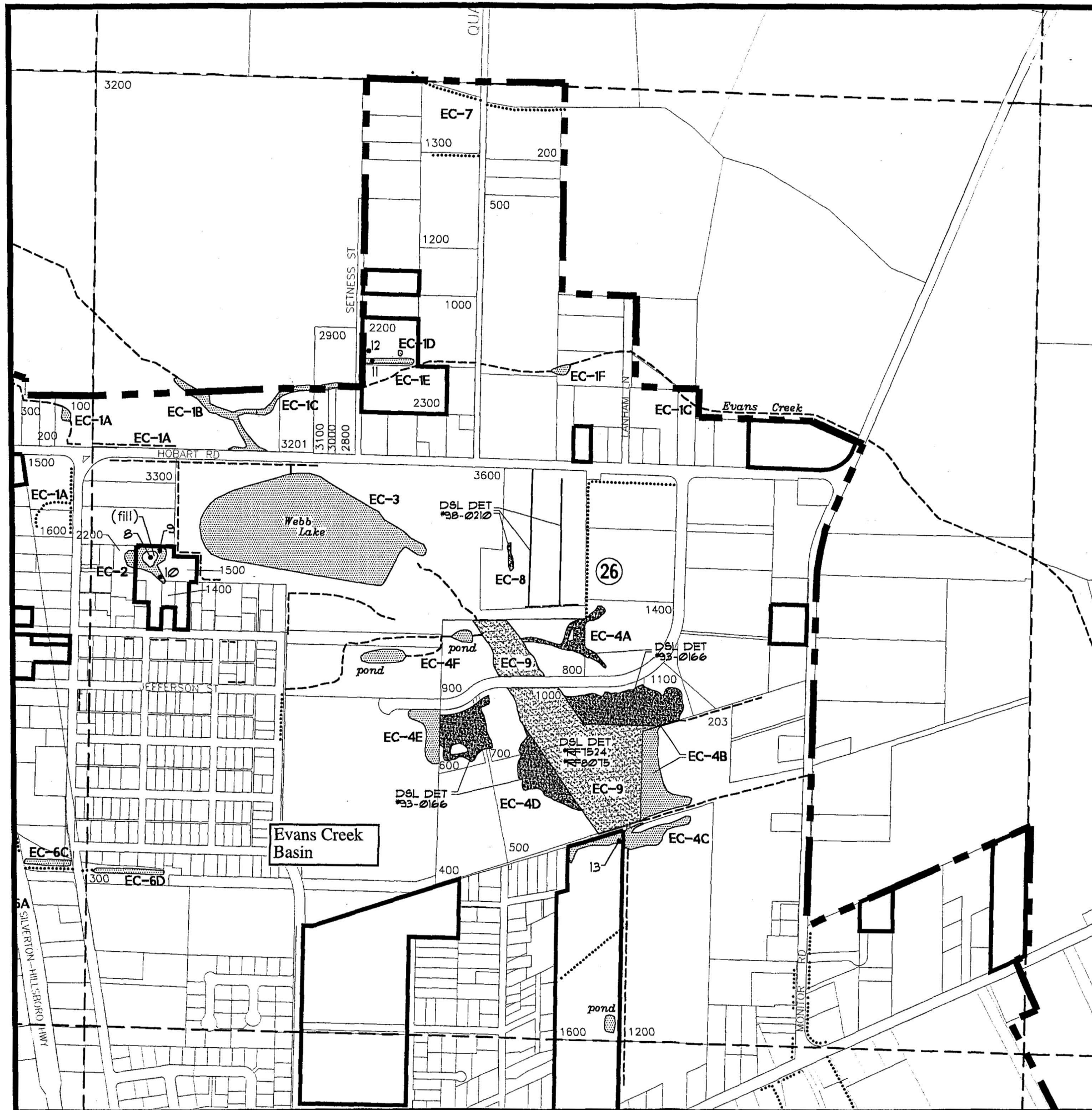
FEBRUARY 2000

WETLAND INFORMATION IS SUBJECT TO CHANGE

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City of Silverton















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Silverton, Oregon 97381






T 6S R 1W Section 27

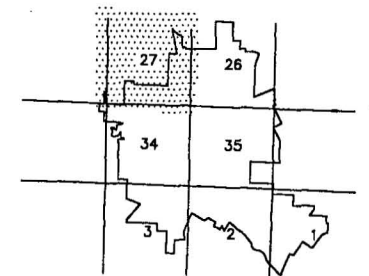
CITY OF SILVERTON LOCAL WETLAND INVENTORY

LEGEND

-  Wetlands
-  EC-6C Wetland label
-  Sample site
-  Riparian areas
-  SC-L-5 Riparian label
-  Wetlands (DSL DET)
-  DSL #
-  Mitigation wetlands (DSL RF)
-  Site access granted
-  Parcel number
-  Section line
-  Urban Growth Boundary
-  Wetland channel
-  Intermittent stream

Wetland acreage

-  1 acre
-  1/2 acre
-  1/10th acre



FEBRUARY
2000

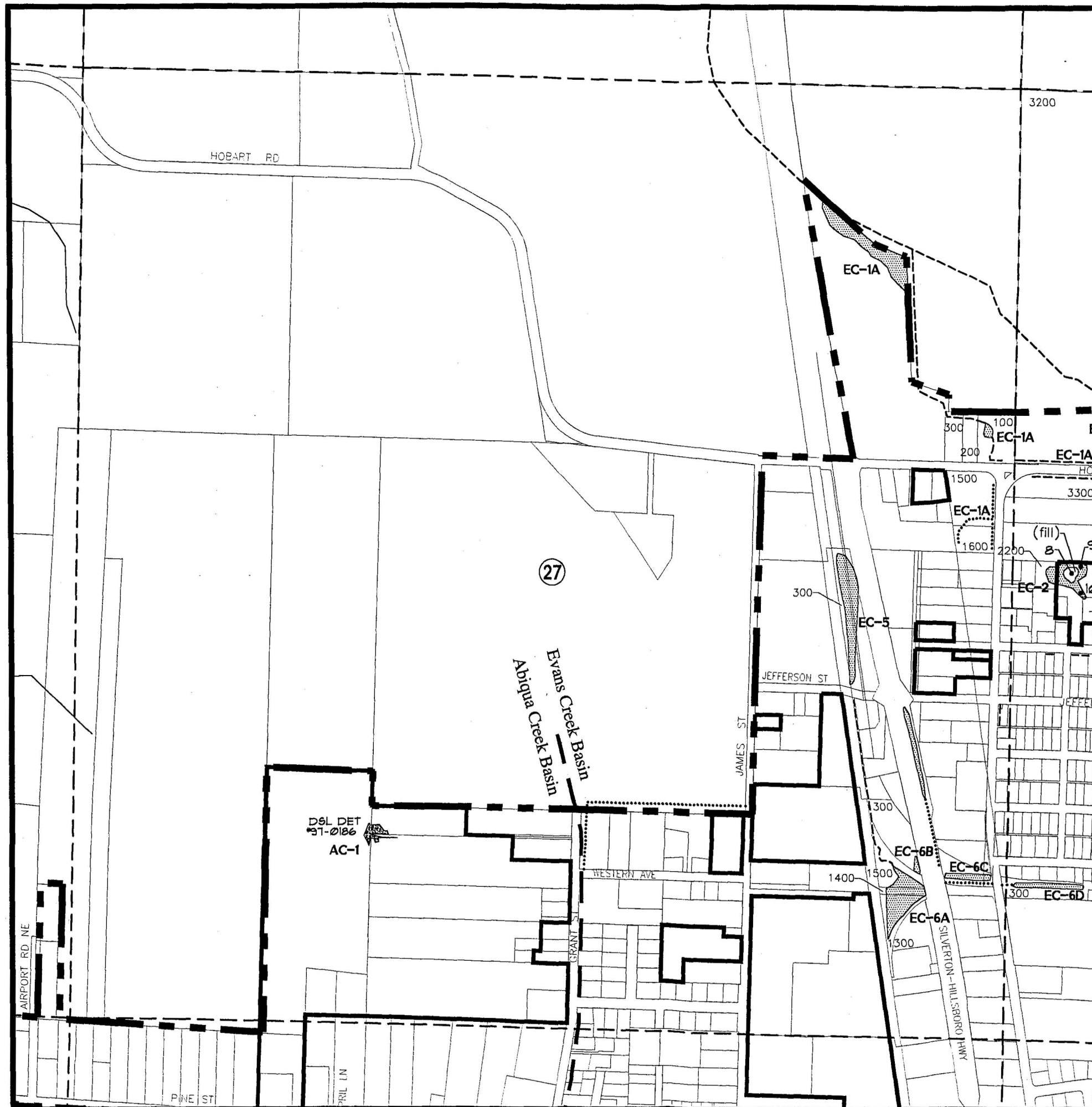
WETLAND INFORMATION IS SUBJECT TO CHANGE

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City of Silverton

306 S. Water Street
Silverton, Oregon 97381










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& ASSOCIATES, INC.



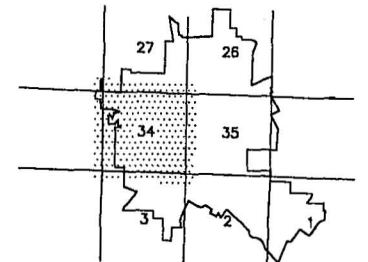
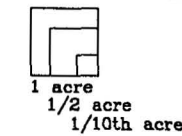
T 6S R 1W Section 34

CITY OF SILVERTON LOCAL WETLAND INVENTORY

LEGEND

- | | | | |
|---|------------------------------|---|-----------------------|
|  | Wetlands |  | Site access granted |
| EC-6C | Wetland label | 1600 | Parcel number |
|  | Sample site | - - - - | Section line |
|  | Riparian areas |  | Urban Growth Boundary |
| SC-L-5 | Riparian label |  | Wetland channel |
|  | Wetlands (DSL DET) |  | Intermittent stream |
| DSL DET #37-0126 | DSL # | | |
|  | Mitigation wetlands (DSL RF) | | |

Wetland acreage



FEBRUARY 2000

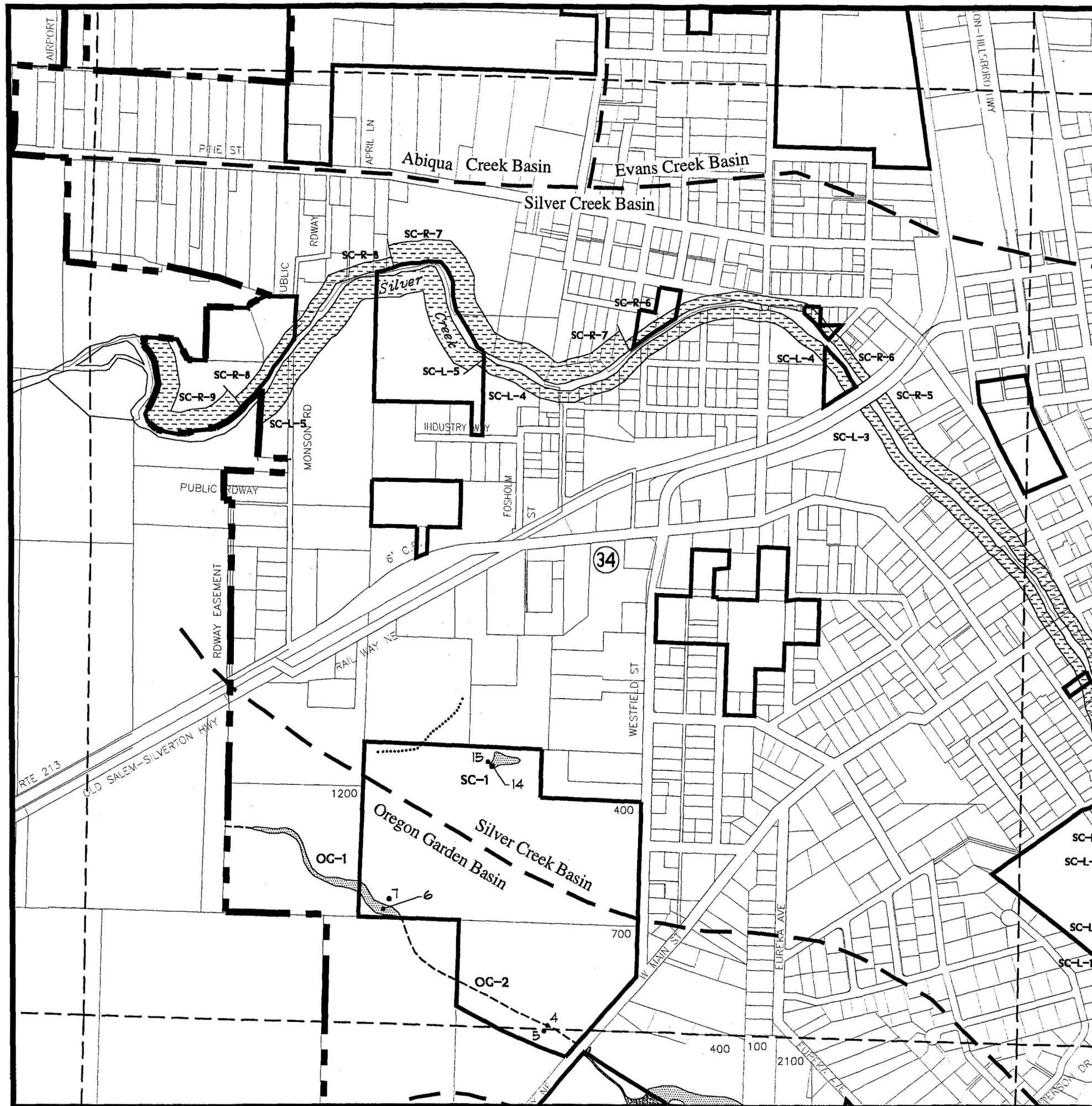
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City of Silverton

306 S. Water Street
Silverton, Oregon 97381














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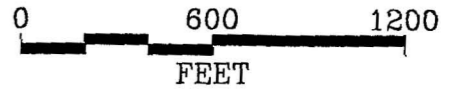
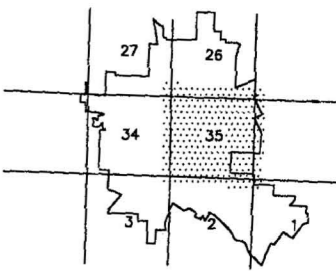
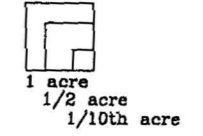
T 6S R 1W Section 35

CITY OF SILVERTON LOCAL WETLAND INVENTORY

LEGEND

-  Wetlands
-  EC-6C Wetland label
-  Sample site
-  Riparian areas
-  sc-L-5 Riparian label
-  Wetlands (DSL DET)
-  Mitigation wetlands (DSL RF)
-  Site access granted
-  Parcel number
-  Section line
-  Urban Growth Boundary
-  Wetland channel
-  Intermittent stream

Wetland acreage



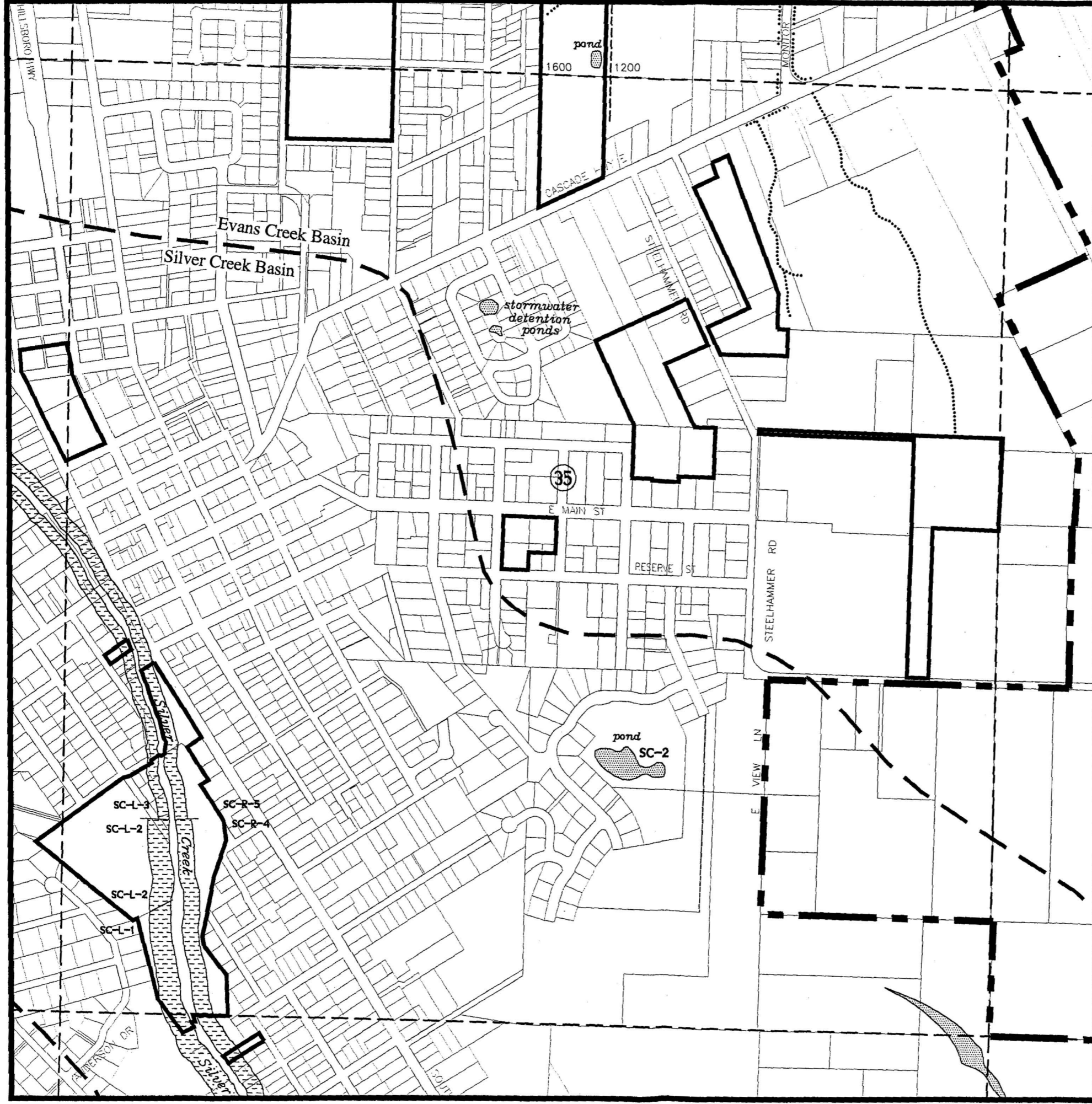
FEBRUARY 2000

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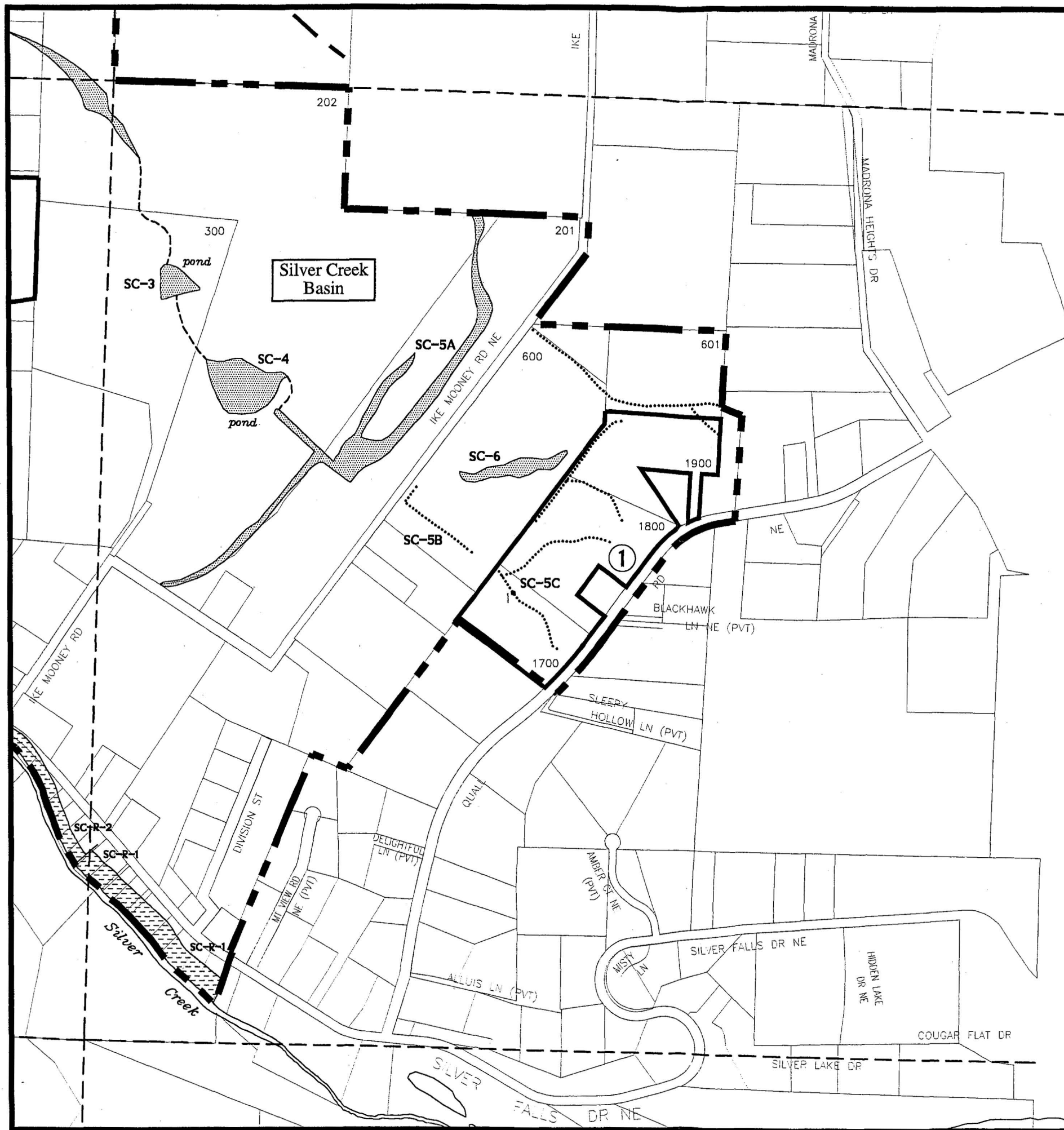
City of Silverton

306 S. Water Street
Silverton, Oregon 97381



T 7S R 1W Section 01

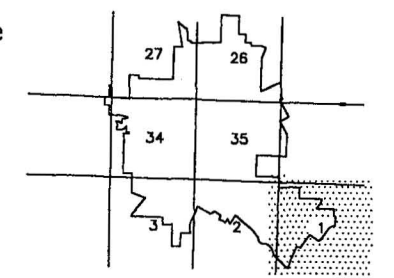
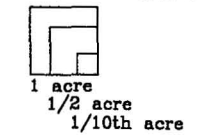
CITY OF SILVERTON LOCAL WETLAND INVENTORY



LEGEND

- Wetlands
- Riparian areas
- Wetlands (DSL DET)
- Mitigation wetlands (DSL RF)
- Site access granted
- Sample site
- Section line
- Urban Growth Boundary
- Wetland channel
- Intermittent stream
- Wetland label (EC-6C)
- Riparian label (SC-L-5)
- DSL # (DSL DET 97-0186)
- Parcel number (1600)

Wetland acreage



FEBRUARY 2000

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City of Silverton











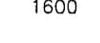


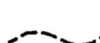
306 S. Water Street
Silverton, Oregon 97381






T 7S R 1W Section 02

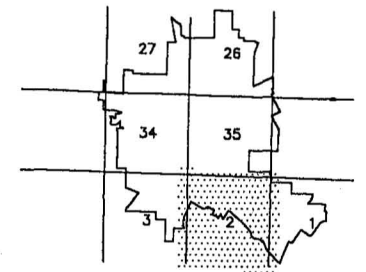
CITY OF SILVERTON LOCAL WETLAND INVENTORY

LEGEND

-  Wetlands
-  EC-6C Wetland label
-  Sample site
-  Riparian areas
-  SC-L-5 Riparian label
-  Wetlands (DSL DET)
-  DSL #
-  Mitigation wetlands (DSL RF)
-  Site access granted
-  1600 Parcel number
-  Section line
-  Urban Growth Boundary
-  Wetland channel
-  Intermittent stream

Wetland acreage

-  1 acre
-  1/2 acre
-  1/10th acre



FEBRUARY
2000

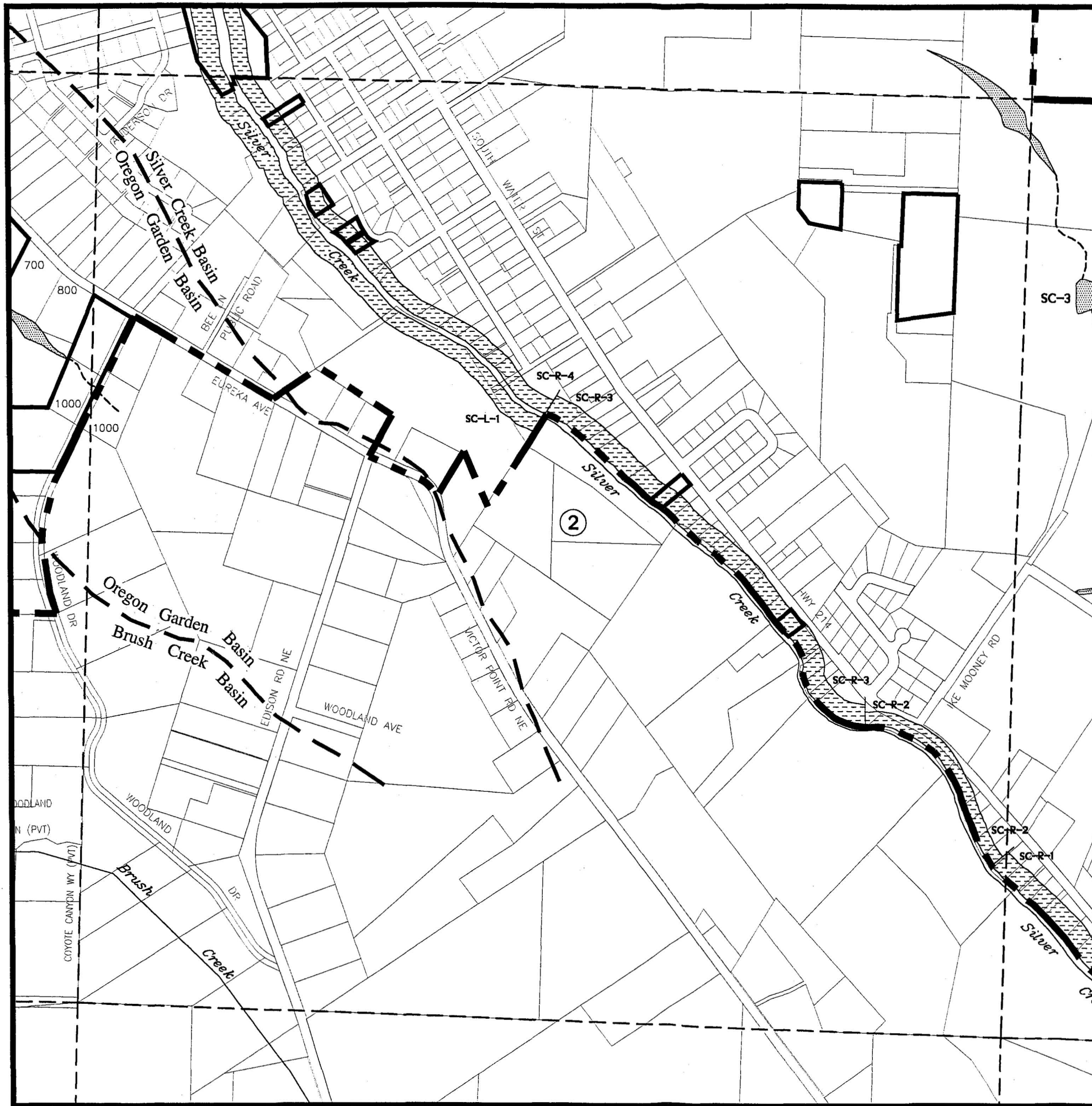
WETLAND INFORMATION IS SUBJECT TO CHANGE

This map is for planning purposes only. Mapped wetland boundaries and riparian study areas were not flagged or surveyed (unless noted as a delineation study). There may be exceptions or unmapped wetlands subject to regulation. In all cases, actual field conditions determined wetland boundaries. All wetland boundaries were mapped in the field on aerial photographs at a scale of 1"=200'. On-site verified (site access granted) wetland boundaries were mapped accurately to within 25' on the aerial photographs. If site alteration work is proposed, you are advised to contact the Oregon Division of State Lands or the U.S. Army Corps of Engineers with regulatory questions. This study was funded by a wetlands planning assistance grant from the U.S. Environmental Protection Agency Region X, administered by the Oregon Division of State Lands.

City of Silverton

306 S. Water Street
Silverton, Oregon 97381

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Appendix B

**Wetland Data and Summary Sheets
(organized by drainage basin and wetland code)**




T 7S R 1W Section 03

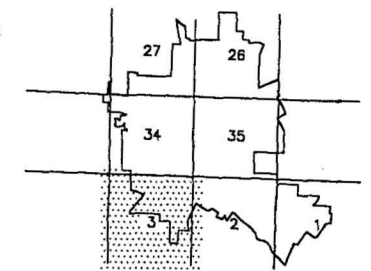
CITY OF SILVERTON LOCAL WETLAND INVENTORY

LEGEND

- | | | | |
|---|------------------------------|---|-----------------------|
|  | Wetlands |  | Site access granted |
| EC-6C | Wetland label | 1600 | Parcel number |
|  | Sample site | --- | Section line |
|  | Riparian areas |  | Urban Growth Boundary |
| SC-L-5 | Riparian label |  | Wetland channel |
|  | Wetlands (DSL DET) |  | Intermittent stream |
| DSL DET #31-0186 | DSL # | | |
|  | Mitigation wetlands (DSL RF) | | |

Wetland acreage

-  1 acre
-  1/2 acre
-  1/10th acre



FEBRUARY 2000

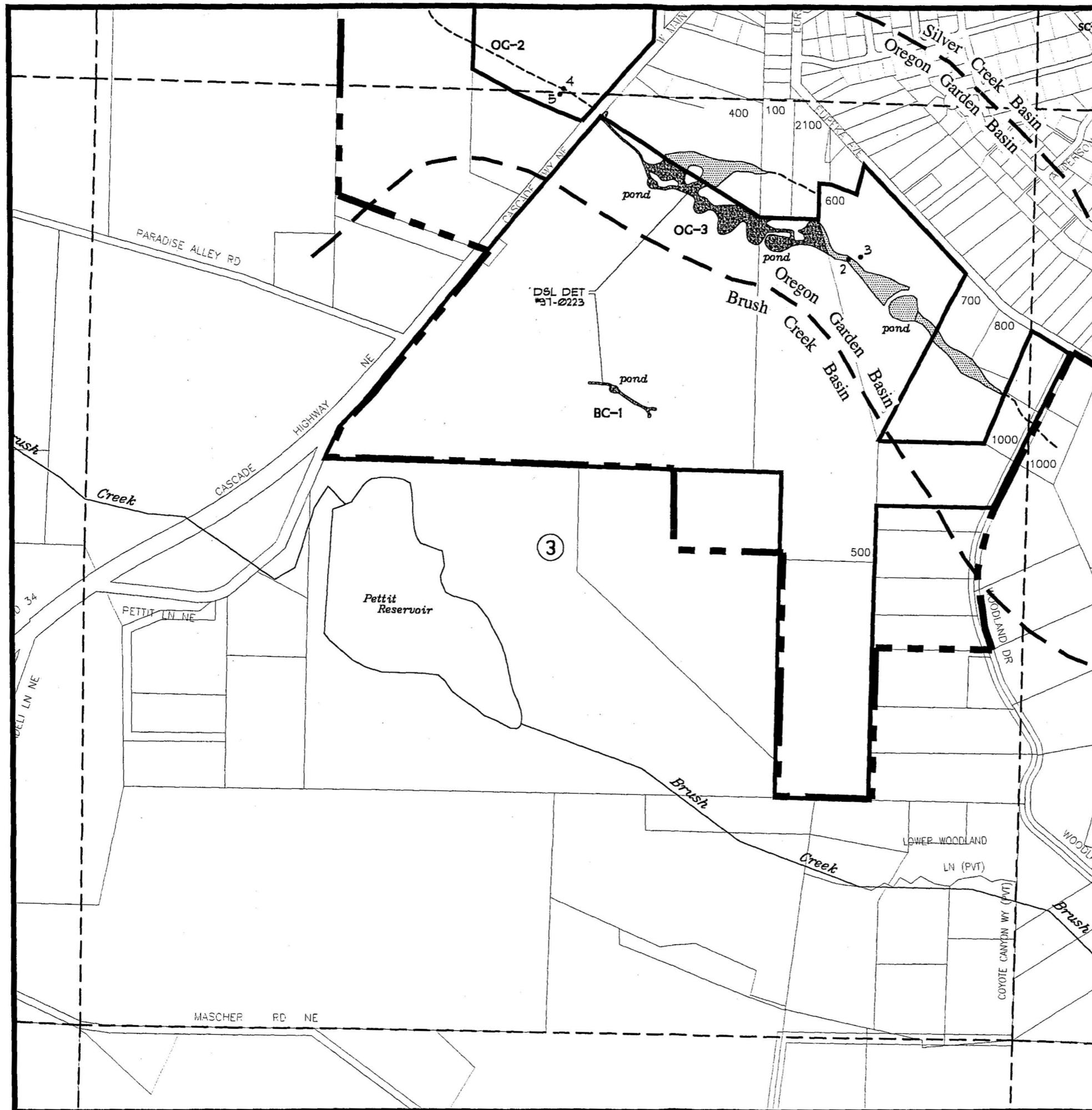
WETLAND INFORMATION IS SUBJECT TO CHANGE

This map is for planning purposes only. Mapped wetland boundaries and riparian study areas were not flagged or surveyed (unless noted as a delineation study). There may be exceptions or unmapped wetlands subject to regulation. In all cases, actual field conditions determined wetland boundaries. All wetland boundaries were mapped in the field on aerial photographs at a scale of 1"=200'. On-site verified (site access granted) wetland boundaries were mapped accurately to within 25' on the aerial photographs. If site alteration work is proposed, you are advised to contact the Oregon Division of State Lands or the U.S. Army Corps of Engineers with regulatory questions. This study was funded by a wetlands planning assistance grant from the U.S. Environmental Protection Agency Region X, administered by the Oregon Division of State Lands.

City of Silverton

306 S. Water Street
Silverton, Oregon 97381

 SHAPIRO
& ASSOCIATES, INC.



SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 06/11/98

Wetland Mapping Code: EC-1 a, b, c, d, e, f, g

Investigator(s): DC/JG

Size (acres): 2.88

Location

Legal: T6S, R1W, S26

100, 200, 300, 500, 700, 1000,
1300, 1500, 1600, 1700, 1800,
1900, 2200, 2300, 2800, 3000,
3100, 3201, 3200

Other: North of Hobart Road, between 2nd St. and Eska
Way

Basin: Evans Creek

Soils

Mapped Series: Amity silt loam, Dayton silt loam, Concord silt loam, Wapato silty clay loam

Hydrology

Hydrologic Source: Ground water, surface drainage

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Alopecurus pratensis

Holcus lanatus

Agrostis tenuis

Comments:

This complex of wetlands consists of drainage ditches excavated in hydric soils; small, modified stream channels; and associated palustrine emergent areas. EC-1a consists of ditches that convey storm water and groundwater along North 2nd Street and Hobart Road, and north through agricultural land. EC-1b is a modified stream channel that flows through a barnyard. Most of the water in the channel is outflow from Webb Lake. EC-1c is a modified stream channel that connects with and contributes water to 1b. EC-1d is a narrow band of palustrine emergent wetland in a grass field. During periods of heavy precipitation, this site may be connected with EC-1e by flood water. EC-1e is a series of ditches that collects groundwater from agricultural areas and conveys it west to EC-1c. Vegetation on this entire wetland network is a mix of grasses and some trees, including poplar, oak, ash, and willow.

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 Silverton Site: 6666 Setness Lane NE Plot: 11
 T 1W R S26 S 6S City: Silverton County: Marion State: OR
 Plot Location; Topography 30' N of fence, 100" E of road, level
 Project #: 7965096.1 Determined by: DC/JG Date: 6/11/98

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:		0	Shrub/Sapling Stratum - % total cover: 0
<i>Alopecurus pratensis</i>	FACW	50	
<i>Holcus lanatus</i>	FAC	40	
<i>Agrostis tenuis</i>	FAC	10	

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)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Amity silt loam

Drainage Class: Somewhat poorly drained
 Taxonomy: Fine, silty, mixed, mesic Agriaquic Xeric Agriabolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	<u>0-10"</u>	<u>10YR 3/1</u>		<u>clayey silt loam</u>
	<u>10-18"</u>	<u>2.5YR 4/2</u>	<u>frequent, fine, 7.5YR 4/4</u>	<u>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 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

Explain:

- Other

Explain: alg mats on soil surface; matted water stained leaves

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Silverton Site: 6666 Setness Lane NE Plot: 12
 T 6S R 1W S 26 City: Silverton County: Marion State: OR
 Plot Location; Topography 60' N of #11, center of field, level
 Project #: 7965096.1 Determined by: DC/JG Date: 6/11/98

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>Holcus lanatus</i>	FAC 80	
	<i>Alopecurus pratensis</i>	FACW 10	
	<i>Festuca arundinacea</i>	FAC- 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)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Amity silt loam

Drainage Class: Somewhat poorly drained
 Taxonomy: Fine, silty, mixed, xeric Agriaquic Xeric Agriabolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	<u>0-13"</u>	<u>10 YR 3/2</u>	<u>fine, few 10 YR 2/2 mottles</u>	<u>silty clay loam</u>
	<u>13-18"</u>	<u>10 YR 4/2</u>	<u>fine, faint 10 YR 4/3 mottles</u>	<u>clay 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 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? 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)
 - Other
 - Local soil survey data
 - FAC-Neutral test
- Explain: _____
- Explain: _____

Hydrology Criterion Met? No

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	6/11/98	Investigator(s):	DC/JG
Project Name:	City of Silverton		
WetlandCode:	EC-1	ProjectNumber:	7965096

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

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: A	Q1: B	Q1: A	Q1: C
Q2: A	Q2: A	Q2: C	Q2: C
Q3: C	Q3: B	Q3: C	Q3: A
Q4: C	Q4: C	Q4: B	Q4: B
Q5a:	Q5: A	Q5: B	Q5: A
Q5b: B	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 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 has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is not pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-1

ProjectNumber: 7965096

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 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. Agricultural 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. Agricultural land use within 500 ft of wetland edge. Salmon, trout, or sensitive 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. 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 less than 0.5 acre. Minor restrictions slow down waterflow out of the wetland. 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 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. only or wet meadow is the dominant cover.
<i>Enhancement Potential</i>	The wetland has moderate potential for enhancement.	One or more of functions for assessment results for wildlife habitat, fish habitat, water

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-1

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		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 and cannot be restored. Wetland's area is less than 0.5 acre. 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 not 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: EC-1

-
- 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**
-

Silverton
Local Wetland Significance Assessment

WetlandCode: EC-1

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 9/23/98

Wetland Mapping Code: AC-1

Investigator(s): JG

Size (acres): 0.19

Location

Legal: T6S, R1W, S27

400

Other: New Silverton High School campus

Basin: Abiqua Creek

Soils

Mapped Series: Dayton silt loam, Concord silt loam

Hydrology

Hydrologic Source: Precipitation, surface runoff, groundwater

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

AC-1 is the remaining wetland of three wetlands delineated by Fishman Environmental Services on the site of the new Silverton High School (DSL #97-018b). Complete information about the site is available in the delineation and mitigation reports.

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):	9/23/98	Investigator(s):	JG
Project Name:	City of Silverton		
WetlandCode:	AC-1	ProjectNumber:	7965096

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: C	Q2:	Q2:	Q2: B	Q2: B	Q2: A
Q3: C	Q3:	Q3:	Q3: B	Q3: C	Q3: C
Q4: C	Q4:	Q4:	Q4: C	Q4: C	Q4: B
Q5: B	Q5:	Q5:	Q5: B	Q5: C	Q5: B
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: A	Q1: A	Q1: C
Q2: C	Q2: C	Q2: C	Q2: A
Q3:	Q3: B	Q3: C	Q3: B
Q4: C	Q4: C	Q4: B	Q4: B
Q5a:	Q5: A	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 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: AC-1

ProjectNumber: 7965096

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. 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). Moderate (approx. 60%) degree of wetland vegetation cover. Less than 0.5 acre and wetland is not connected to other wetland 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 less than 0.5 acre. 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 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. 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: AC-1

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		less than 0.5 acre. 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 open to the public for direct access or observation. More than 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). 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: AC-1

Question 1	B
	<i>List:</i>
Question 2	B
	<i>List:</i>
Question 3	B
	<i>List:</i>
Question 4	B
	<i>List:</i>
Question 5	B
Question 6	B
Question 7	B
	<i>List:</i>
Question 8	B
Question 9	B
Question 10	B

Silverton
Local Wetland Significance Assessment

WetlandCode: AC-1

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 9/23/98

Wetland Mapping Code: BC-1

Investigator(s): JG

Size (acres): 0.15

Location

Legal: T7S, R1W, S3

N/A

Other: Approx. 1/4 mile E of hwy, central on OG site

Basin: Brush Creek

Soils

Mapped Series: Nekia very stony silty clay loam

Hydrology

Hydrologic Source: Groundwater; seep

Wetland Classification(s): PFO

Dominant Vegetation

Trees	Shrubs	Vines	Herbs
<i>Fraxinus latifolia</i>			

Comments:

BC-1 is a small isolated forested wetland around a seep. The site was delineated by Shapiro and Associates (DSL # 97-0223). Complete information about the site is available in the delineation report.

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):	9/23/98	Investigator(s):	JG
Project Name:	City of Silverton		
WetlandCode:	BC-1	ProjectNumber:	7965096

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

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: B	Q1: B	Q1: C
Q2: B	Q2: A	Q2: C	Q2: B
Q3:	Q3: A	Q3: C	Q3: A
Q4: C	Q4: A	Q4: B	Q4: A
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:	N/A
Fish Habitat - Lakes/Ponds:	N/A
Water Quality:	The wetland's water quality function is lost or not present.
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 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: BC-1

ProjectNumber: 7965096

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. 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. Exclusive Forest use or Open Space 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 lost or not present.	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). High (>60%) degree of wetland vegetation cover. Less than 0.5 acre and wetland is not connected to other wetland within a 3 mile radius. Exclusive Forest use or Open Space 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 less than 0.5 acre. Waterflow out of wetland is unrestricted. Woody vegetation is dominant cover type. Exclusive Forest Use or Open Space 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 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 Exclusive Forest use or Open Space. 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: BC-1

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		groundwater, including springs and seeps. Wetland's area is less than 0.5 acre. 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 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. Results of wildlife habitat and fish habitat assessment criteria prove wetland provides diverse Wildlife Habitat, or Fish Habitat function is intact. 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.	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 open or naturally landscaped. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: BC-1

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: BC-1

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 06/11/98

Wetland Mapping Code: EC-2

Investigator(s): DC/JG

Size (acres): 0.5

Location

Legal: T6 S, R1W, S26

1400, 1500, 2200

Other: 503/509 Lincoln Street

Basin: Evans Creek

Soils

Mapped Series: Concord silt loam, Wapato silty clay loam

Hydrology

Hydrologic Source: Precipitation; surface flow

Wetland Classification(s): PEM, PFO

Dominant Vegetation

Trees	Shrubs	Vines	Herbs
<i>Fraxinus latifolia</i>			<i>Alopecurus pratensis</i>
<i>Populus balsamifera</i>			<i>Holcus lanatus</i>
			<i>Phalaris arundinacea</i>
			<i>Agrostis tenuis</i>
			<i>Mentha arvensis</i>

Comments:

This wetland is in the back yard of a residential lot. The site is essentially a flat pasture, with minor depressions and elevated areas. The highest part of the lot is a mound of fill material that supports upland vegetation. Residents in the neighborhood indicate that the area floods seasonally, and during periods of high precipitation is connected by surface water to a system of ditches in the neighborhood. Trees are located along the southern edge of the wetland.

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 Silverton Site: 503/509 Lincoln St. Plot: 8
 T 6S R 1W S 26 City: Silverton County: Marion State: OR
 Plot Location; Topography Central in back field- 100'sds of back fence. 60' E of W fence, on raised fill.
 Project #: 7965096.1 Determined by: DC/JG Date: 6/11/98

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:		55	Shrub/Sapling Stratum - % total cover:	5
<i>Phalaris arundinacea</i>	FACW	30	<i>Rosa pisocarpa</i>	FAC 100
<i>Agrostis tenuis</i>	FAC	30		
<i>Dipsacus sylvestris</i>	FAC	30		
<i>Holcus lanatus</i>	FAC	10		
<i>Alopecurus pratensis</i>	FACW	5		
<i>Carex densa</i>	OBL	5		
Woody Vine Stratum - % total cover:		30	Tree Stratum - % total cover:	0
<i>Rubus discolor</i>	FACU	100		

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 4 of 5 = 80 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Concord silt loam
 Drainage Class: Poorly drained
 Taxonomy: Fine, montmorillonitic, mesic Typic Ochraqualfs

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-6"	2.5 YR 4/1		clay; mixed matrix fill
	6-18"	5 Y 5/2	7.5 YR 5/6 medium, common mottles	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 type="checkbox"/> Gleyed | <input type="checkbox"/> Highly organic surface layer | <input checked="" type="checkbox"/> On hydric soils list |

Remarks: Mixed clay fill. Woody debris mixed in soil. Soil in sample is not native soil.

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
- Explain:
- Other
- Explain:

Hydrology Criterion Met? No

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Silverton Site: 503/509 Lincoln St. Plot: 9
 T 6S R 1W S 26 City: Silverton County: Marion State: OR
 Plot Location; Topography ~50 NE of 9; 50' S of back fence, 75' W of E fence; flat
 Project #: 7965096.1 Determined by: DC/JG Date: 6/11/98

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>Agrostis tenuis</i>		FAC	50	
<i>Mentha arvensis</i>		FACW	20	
<i>Phalaris arundinacea</i>		FACW	20	
<i>Alopecurus pratensis</i>		FACW	10	
<i>Carex aboriginum</i>		OBL	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 3 = 100 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Concord silt loam
 Drainage Class: Poorly drained
 Taxonomy: Fine, Montmorillonitic, Mesic Typic Ochraqualfs

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-12"	10 YR 4/2	frequent medium 7.5 YR 3/4	silt loam
	12-18"	2.5 Y 5/2	frequent, fine 10 YR 4/4	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: | 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: |

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Silverton Site: 503/509 Lincoln St. Plot: 10
 T 6S R 1W S 26 City: Silverton County: Marion State: OR
 Plot Location; Topography -100' ESE of #10 S. end of fence line in center of property. Slight depression
 Project #: 7965096.1 Determined by: DC/JG Date: 6/11/98

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>Phalaris arundinacea</i>		FACW	70		
<i>Agrostis tenuis</i>		FAC	15		
<i>Solanum dulcamara</i>		FAC+	10		
<i>Rumex crispus</i>		FAC+	5		
<i>Holcus lanatus</i>		FAC	5		
Woody Vine Stratum - % total cover:			0	Tree Stratum - % total cover:	
					80
				<i>Fraxinus latifolia</i>	FACW 50
				<i>Populus balsamifera</i>	FAC 50

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 3 of 3 = 100 % (50/20 Rule)

Remarks: Ru di near sample excluded; non representative of association being characterized.

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Concord silt loam
 Drainage Class: Poorly drained
 Taxonomy: Fine, Montmorillonitic, mesic, Typic Ochraqualfs

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-10"	10 YR 3/1	medium, frequent 7.5 YR 3/3	
	10-18"	2.5 YR 4/1	frequent medium 7.5 YR 3/3	

- | | | | |
|--|--|---|--|
| <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: algal mats on soil surface

Hydrology Criterion Met? Yes

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	6/11/98	Investigator(s):	DC/JG
Project Name:	City of Silverton		
WetlandCode:	EC-2	ProjectNumber:	7965096

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: A	Q1:	Q1:	Q1: A	Q1: B	Q1: A
Q2: C	Q2:	Q2:	Q2: B	Q2: B	Q2: B
Q3: C	Q3:	Q3:	Q3: A	Q3: B	Q3: C
Q4: C	Q4:	Q4:	Q4: B	Q4: C	Q4: A
Q5: A	Q5:	Q5:	Q5: A	Q5: C	Q5: A
Q6: A	Q6:	Q6:	Q6: C	Q6: A	Q6: C
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: A	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: 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 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: EC-2

ProjectNumber: 7965096

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. Less than 0.5 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>	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). 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. 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. 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

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-2

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		<p>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.</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. Results of wildlife habitat and fish habitat assessment criteria prove wetland provides diverse Wildlife Habitat, or Fish Habitat function is intact. 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>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 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. Continuous traffic and other intrusive noise and natural sounds are audible at primary viewing location.</p>

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: EC-2

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: EC-2

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification:

Wetland Mapping Code: EC-3

Investigator(s): DC/JG

Size (acres): 11.59

Location

Legal: T6S, R1W, S26

3600

Other: South of Hart Road

Basin: Evans Creek

Soils

Mapped Series: Concord silt loam, Dayton silt loam, Wapato silty clay loam

Hydrology

Hydrologic Source: Water from wetland EC-4

Wetland Classification(s): POW

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. Wetland EC-3 is Webb Lake. This open-water wetland is surrounded by a dam and dike that limits the extent of the wetland to the open water. The embankment around the lake is covered with Himalayan blackberry (*Rubus discolor*). The lake is surrounded on three sides by agricultural land, with residential areas near the southwest edge. Outflow is through a drain in the northern edge of the lake. Water flows out a culvert, into a ditch, and crosses Hobart Road into a series of ditches that eventually flow into Evans Creek, outside the study area.

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): 6/11/98	Investigator(s): DC/JG
Project Name: City of Silverton	
WetlandCode: EC-3	ProjectNumber: 7965096

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

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

Wildlife Habitat:	The wetland provides diverse wildlife habitat.
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 impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	N/A
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 not pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-3

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides diverse wildlife habitat.	One Cowardin wetland class with more than 5 plant species. Emergent veg. & ponding or open water only. Low degree of Cowardin class interspersions. 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. Agricultural 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>	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. Agricultural land use within 500 ft of wetland edge. Salmon, trout, or sensitive species present sometime 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. 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 restricted or no outlet. 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

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-3

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	N/A	
<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. Results of wildlife habitat and fish habitat assessment criteria prove wetland provides diverse Wildlife Habitat, or Fish Habitat function is intact. There is no existing physical public access to other features, but observation of other features can 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 diverse wildlife habitat. 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). 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: EC-3

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: EC-3

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:

- Yes** 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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 06/11/98

Wetland Mapping Code: EC-4 a, b, c, d, e

Investigator(s): DC/JG

Size (acres): 6.43

Location

Legal: T6S, R1W, S26

200, 301, 500, 600, 700, 800, 900,
3601

Other: Silverton Industrial Park, Olson Rhododendron
Farm

Basin: Evans Creek

Soils

Mapped Series: Amity silt loam, Concord silt loam, Dayton silt loam, Wapato silty clay loam

Hydrology

Hydrologic Source: Groundwater, water district reservoir overflow

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

This large wetland complex is in the Silverton Industrial Park and includes a small area on the northern end of the Olson Rhododendron Farm and an adjacent field to the east. Predominant vegetation on the site is herbaceous. Small areas of shrub growth, mostly willows (*Salix* spp.), and a few areas with trees interrupt the otherwise flat and monotonous reed canarygrass (*Phalaris arundinacea*) desert. A system of ditches from the east, west, and south brings water onto the south end of the site. Most of the water is then conveyed north across the site, crossing Eska Way in a culvert. Two mitigation wetlands (EC-9) bisect the EC-4 wetland in the industrial park.

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 Silverton Site: Olson Rhododendron Farm Plot: 13
 T 6S R 1W S 26 City: Silverton County: Marion State: OR
 Plot Location; Topography NE corner of property; 20' S. of ditch, 40' W of fence, level
 Project #: 7965096.1 Determined by: DC/JG Date: 6/11/98

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:		70	Shrub/Sapling Stratum - % total cover: 10	
<i>Holcus lanatus</i>	FAC	60	<i>Sagittaria latifolia</i>	OBL 50
<i>Juncus effusus</i>	FACW	20	<i>Alnus rubra</i>	FAC 50
<i>Agrostis tenuis</i>	FAC	20		
<i>Festuca arundinacea</i>	FAC-	10		
<i>Dactylis glomerata</i>	FACU	5		
<i>Vicia sativa</i>	UPL	5		
		0		
Woody Vine Stratum - % total cover:		5	Tree Stratum - % total cover: 15	
<i>Rubus discolor</i>	FACU	100	<i>Sagittaria latifolia</i>	OBL 70
			<i>Populus balsamifera</i>	FAC 15
			<i>Alnus rubra</i>	FAC 10

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 6 of 7 = 86 % (50/20 Rule)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Dayton silt loam
 Drainage Class: Poorly drained
 Taxonomy: Fine montmorillonitic, mesic Typic Albaquales

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-7"	10 YR 3/2	few, fine, faint 10 YR 3/3 mottles	clay loam
	7-18"	10 YR 3/1	common medium 7.5 YR 3/4 mottles	blocky dense 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: 11" Depth to saturation: 5"

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:
- Other Explain:

Hydrology Criterion Met? Yes

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	6/11/98	Investigator(s):	DC/JG
Project Name:	City of Silverton		
WetlandCode:	EC-4/EC-9	ProjectNumber:	7965096

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

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: A	Q1: C	Q1: A	Q1: A
Q2: A	Q2: A	Q2: C	Q2: A
Q3: A	Q3: B	Q3: C	Q3: A
Q4: A	Q4: C	Q4: B	Q4: B
Q5a:	Q5: A	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 high enhancement potential.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is considered to be pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-4/EC-9

ProjectNumber: 7965096

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. Moderate degree of Cowardin class interspersion. Less than 0.5 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.	More than 75% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains between 10 and 25% 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.	No 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. 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 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

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-4/EC-9

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		veg. only or wet meadow is the dominant cover.
<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 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 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 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 pleasing.	More than two Cowardin classes are 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: EC-4/EC-9

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: EC-4/EC-9

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,

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification:

Wetland Mapping Code: EC-5

Investigator(s): DC/ JG

Size (acres): 1.03

Location

Legal: T6S, R1W, S27

300

Other: Btwn Hillsboro-Silverton Hwy & RR, N of Jefferson

Basin: Evans Creek

Soils

Mapped Series: Woodburn silt loam (WuA)

Hydrology

Hydrologic Source: Surface runoff, precipitation

Wetland Classification(s): PFO

Dominant Vegetation

Trees	Shrubs	Vines	Herbs
<i>Populus balsamifera</i>		<i>Rubus discolor</i>	

Comments:

OFFSITE DETERMINATION. Wetland EC-5 is a strip of forested wetland between the Hillsboro-Silverton Highway and the railroad tracks. The cottonwood trees (*Populus balsamifera*) on the site are mature, approximately 75 feet high, and appear healthy. Old mattresses, tarps, and other debris on the site indicate that the area is used occasionally by homeless people as a camp.

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): 6/11/98	Investigator(s): DC/JG
Project Name: City of Silverton LWI	
WetlandCode: EC-5	ProjectNumber: 7965096

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: B
Q2: A	Q2:	Q2:	Q2: B	Q2: B	Q2: B
Q3: C	Q3:	Q3:	Q3: A	Q3: B	Q3: C
Q4: C	Q4:	Q4:	Q4: B	Q4: B	Q4: A
Q5: B	Q5:	Q5:	Q5: A	Q5: A	Q5: A
Q6: A	Q6:	Q6:	Q6: C	Q6: A	Q6: A
Q7: A				Q7: B	
Q8: C					
Q9a:					
Q9b: C					

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: A	Q1: B	Q1: C	Q1: C
Q2: C	Q2: B	Q2: C	Q2: B
Q3: A	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 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 not pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-5

ProjectNumber: 7965096

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. 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. 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). 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. 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 not 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 moderate potential for enhancement.	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 precipitation or sheet flow. Water flow into

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-5	ProjectNumber: 7965096
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Function	Evaluation Descriptor	Rationale
		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, 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 not 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. 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: EC-5

Question 1	B
	<i>List:</i>
Question 2	B
	<i>List:</i>
Question 3	B
	<i>List:</i>
Question 4	B
	<i>List:</i>
Question 5	B
Question 6	B
Question 7	B
	<i>List:</i>
Question 8	B
Question 9	B
Question 10	B

Silverton
Local Wetland Significance Assessment

WetlandCode: EC-5

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification:

Wetland Mapping Code: EC-6 a, b, c, d

Investigator(s): DC/JG

Size (acres): 1.74

Location

Legal: T6S, R1W, S27

300, 1300, 1400, 1500

Other: Old RR junction W of Hills.-Silv. Hwy, S of Jeff.

Basin: Evans Creek

Soils

Mapped Series: Clackamas gravelly loam, Courtney gravelly silty clay loam, Woodburn silt loam (WuA)

Hydrology

Hydrologic Source: Surface runoff, precipitation

Wetland Classification(s): PEM, PSS

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Solanum dulcamara

Phalaris arundinacea

Agrostis tenuis

Alopecurus pratensis

Mentha arvensis

Rumex crispus

Holcus lanatus

Comments:

This wetland complex is associated with the junction of two railroad grades and drainage ditches adjacent to them. EC-6a is a drainage ditch that conveys water southward along the eastern side of the rail bed and opens into a triangular area at the junction of the two rail lines. Water from this ditch apparently is sufficient to flood portions of the area and maintain enough soil moisture to support a predominance of hydrophytes on the site. EC-6b is a small, isolated wetland in the corner between the rail bed and the highway. This low area apparently has no outlet, so water collects and supports the site. EC-6c and d are small, linear (PSS) wetlands along the northern and southern sides of the east-west rail line. Both sites have footpaths throughout them and have rather dense growth of hydrophytic trees and shrubs.

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): 6/11/98	Investigator(s): DC/JG
Project Name: City of Silverton	
WetlandCode: EC-6	ProjectNumber: 7965096

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

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: A	Q1: A
Q2: A	Q2: A	Q2: C	Q2: A
Q3: A	Q3: B	Q3: C	Q3: C
Q4: B	Q4: C	Q4: B	Q4: C
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: B	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 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 has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is not pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-6

ProjectNumber: 7965096

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. 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 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 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 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. 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

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-6

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		<p>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. 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.</p>
<i>Education</i>	The wetland has potential for educational use.	<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 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>	The wetland has the potential to provide recreational opportunities.	<p>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.</p>
<i>Aesthetic Quality</i>	The wetland is not pleasing.	<p>More than two Cowardin classes are 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. Natural, pleasant odors are present at primary viewing location. Continuous traffic and other intrusive noise and NO natural sounds are audible at primary viewing location.</p>

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: EC-6

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**

Silverton

Local Wetland Significance Assessment

WetlandCode: EC-6

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 9\23\98

Wetland Mapping Code: EC-7

Investigator(s): JG

Size (acres): 0.04

Location

Legal: T6S, R1W, S26

200, 1300, 1400

Other: Quarry Ave. and UGB

Basin: Evans Creek

Soils

Mapped Series: Dayton silt loam

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION: EC-7 is an intermittent stream. The streambed apparently has been excavated and realigned. This stream flows into Abiqua Creek about .5 mile northwest of the UGB.

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): 9/24/98	Investigator(s): JG
Project Name: City of Silverton LWI	
WetlandCode: EC-7	ProjectNumber: 7965096

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: B	Q1: C	Q1:	Q1: A	Q1: B	Q1: A
Q2: C	Q2: B	Q2:	Q2: B	Q2: B	Q2: B
Q3: C	Q3: C	Q3:	Q3: B	Q3: C	Q3: C
Q4: C	Q4: A	Q4:	Q4: B	Q4: C	Q4: B
Q5: A	Q5: B	Q5:	Q5: B	Q5: C	Q5: B
Q6: A	Q6: A	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: B	Q2: A
Q3: A	Q3: B	Q3: B	Q3: A
Q4: C	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:	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 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 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: EC-7

ProjectNumber: 7965096

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. Less than 0.5 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. Agricultural 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. Agricultural land use within 500 ft of wetland edge. Salmon, trout, or sensitive 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. Unable to determine evidence of flooding or ponding during the growing season (or unapplicable). 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. Unable to determine evidence of flooding or ponding during the growing season (or not applicable). Area is less than 0.5 acre. 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 Agricultural land use within 500 feet of wetland's edge. Emergent veg. only or wet meadow is the dominant cover.

Enhancement Potential

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-7	ProjectNumber: 7965096
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Function	Evaluation Descriptor	Rationale
	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 less than 0.5 acre. 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 has the potential to provide recreational opportunities.	There is not an existing access point within 250 feet of the wetland's edge (if existing-hazardous). Boat launch could be developed within 0.5-1 mile. Existing undeveloped trails and viewing areas 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 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: EC-7

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**

Silverton

Local Wetland Significance Assessment

WetlandCode: EC-7

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 9/23/98

Wetland Mapping Code: EC-8

Investigator(s): JG

Size (acres): 0.24

Location

Legal: T6S, R1W, S26

3700

Other: 600 feet S. of Hobart Rd.; 600 ft E. of Webb Lake

Basin: Evans Creek

Soils

Mapped Series: Amity silt loam

Hydrology

Hydrologic Source: Precipitation, groundwater

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. EC-8 is a small, isolated wetland in an actively farmed agricultural field. It was delineated by Pacific Habitat Services. Further information about the site is available in the PHS delineation report.

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):	9/23/98	Investigator(s):	JG
Project Name:	City of Silverton		
WetlandCode:	EC-8	ProjectNumber:	7965096

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: B	Q2: B	Q2: A
Q3: C	Q3:	Q3:	Q3: C	Q3: C	Q3: C
Q4: C	Q4:	Q4:	Q4: C	Q4: C	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: C	Q2: A	Q2: C	Q2: A
Q3:	Q3: B	Q3: C	Q3: C
Q4: C	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 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 oppor
Aesthetic Quality:	The wetland is not pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-8

ProjectNumber: 7965096

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.	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. Less than 0.5 acre and wetland is not connected to other wetland 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 less than 0.5 acre. 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 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.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-8	ProjectNumber: 7965096
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Function	Evaluation Descriptor	Rationale
		Wetland's primary source of water is precipitation or sheet flow. Wetland's area is less than 0.5 acre. 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 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. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: EC-8

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: EC-8

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

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: N/A

Wetland Mapping Code: EC-9

Investigator(s): JG

Size (acres): 12.32

Location

Legal: T6S, R1W, S26

200, 500, 600, 700, 800, 900

Other: Silverton Industrial Park, Olson Rhododendron Farm

Basin: Evans Creek

Soils

Mapped Series: Dayton silt loam

Hydrology

Hydrologic Source: Surface flow

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Salix sp.

Rubus discolor

Phalaris arundinacea

Typha latifolia

Comments:

EC-9 is a wetlands enhancement mitigation project (RF 7524 and RF 8075) in the Silverton Industrial Park. The mitigation site is surrounded by previously existing wetland (EC-4). Water for the wetland is supplied by a flow from the south and west (along the eastern and northern edges of a rhododendron nursery) and the east (along the northern edge of a pasture).

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): 6/11/98	Investigator(s): DC/JG
Project Name: City of Silverton	
WetlandCode: EC-4/EC-9	ProjectNumber: 7965096

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

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: A	Q1: C	Q1: A	Q1: A
Q2: A	Q2: A	Q2: C	Q2: A
Q3: A	Q3: B	Q3: C	Q3: A
Q4: A	Q4: C	Q4: B	Q4: B
Q5a:	Q5: A	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 high enhancement potential.
Education:	The wetland site is not appropriate for educational use.
Recreation:	The wetland has the potential to provide recreational opportunities.
Aesthetic Quality:	The wetland is considered to be pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-4/EC-9	ProjectNumber: 7965096
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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. Moderate degree of Cowardin class interspersion. Less than 0.5 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.	More than 75% of stream shaded by riparian vegetation. Physical character of stream channel extensively modified/piped. Stream contains between 10 and 25% 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.	No 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. 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 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

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: EC-4/EC-9

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		veg. only or wet meadow is the dominant cover.
<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 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 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 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 pleasing.	More than two Cowardin classes are 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: EC-4/EC-9

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: EC-4/EC-9

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,
- 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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 06/10/98

Wetland Mapping Code: OG-1

Investigator(s): DC/ JG

Size (acres): 0.82

Location

Legal: T6S, R1W, S34

400, 1700

Other: SW corner of Robert Frost Elem. Sch. Grounds

Basin: Oregon Garden

Soils

Mapped Series: Amity silt loam

Hydrology

Hydrologic Source: Surface flow in stream

Wetland Classification(s): RUB perennial; PFO; PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Holcus lanatus

Galium aparine

Comments:

Wetland OG-1 is a stream and associated palustrine wetland/riparian complex. Data point 6 was located in the stream channel, with very little vegetation. Plants on the margin of the stream include *Fraxinus latifolia* (Oregon ash), *Oemleria cerasiformis* (Indian plum), *Rosa pisocarpa* (clustered rose) *Rubus laciniatus* (evergreen blackberry), *Rubus ursinus* (trailing blackberry), *Solanum dulcamara* (climbing nightshade), *Symphoricarpos albus* (snowberry), *Quercus garryana* (Oregon white oak) and *Rhamnus purshiana* (cascara). The stream channel is about 5 feet wide, shallow (3 inches of water at the time of investigation), and has a low gradient and braided side channels. A palustrine emergent wetland about 20 feet wide is adjacent to the northern bank of the stream.

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 Silverton Site: Robert Frost Elem. Sch. Plot: 6
 T 6S R 1W S 34 City: Silverton County: Marion State: OR
 Plot Location; Topography S.W. corner of Robert Frost Elem Sch. grounds; in stream channel
 Project #: 7965096.1 Determined by: DC/JG Date: 6/10/98

DETERMINATION: IS THIS PLOT IN A WETLAND?: Yes

Comments: Wetland meadow along N edge of channel, ~20' wide.

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: 0
	<i>Holcus lanatus</i>	FAC 80	
	<i>Galium aparine</i>	FACU 20	

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 2 = 50 % (50/20 Rule)

Remarks: channel unvegetated. Surrounding veg. is; Fraxinus latifolia; Oemleria cerasiformis; Rosa pisocarpa; Rubus laciniatus, Rubus ursinus; Solanum dulcamara; Suvularia Aquatica; Quercus garryana; Cascara

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Amity silt loam
 Drainage Class: Somewhat poorly drained
 Taxonomy: Fine, Silty, Mixed, Mesic Agriaquic Xeric Agriabolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0-10"	10 yr 3/2		clayey silt loam
	10-18"	7.5 yr 3/2		silty clay 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: Sloping thin soils, over a relatively impermeable sublayer, that stays saturated without showing strong reducing conditions.

Soil Criterion Met? No

HYDROLOGY

Depth of inundation 2"-3" Depth to water table: 0" Depth to saturation: 0"-10"

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: _____

Remarks: Saturation in top 10" only. Channel 4'-5' wide; some broided side channels.

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Silverton Site: Robert Frost Elem. Sch. Plot: 7
 T 6S R 1W S 34 City: Silverton County: Marion State: OR
 Plot Location; Topography In field N of plot C#6; SW corner RF Elem. Gentle slope
 Project #: 7965096.1 Determined by: DC/JG Date: 6/10/98

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:	
<i>Holcus lanatus</i>	FAC	60		
<i>Galium aparine</i>	FACU	40		
<i>Vicia sativa</i>	UPL	10		
<i>Cirsium arvense</i>	FACU	1		
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 2 = 50 % (50/20 Rule)

Vegetation Criterion Met? No

SOILS Mapped Unit Name: Amity silt loam
 Drainage Class: Somewhat poorly drained
 Taxonomy: Fine, silty, mixed, mesic Agriaquic Xeric Agriabolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	<u>0-18"</u>	<u>7.5 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 type="checkbox"/> On hydric soils list	

Soil Criterion Met? No

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

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	6/10/98	Investigator(s):	DC/JG
Project Name:	City of Silverton		
Wetland Code:	OG-1	Project Number:	7965096

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

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: B	Q1: B	Q1: B
Q2: A	Q2: A	Q2: C	Q2: C
Q3: A	Q3: B	Q3: B	Q3: A
Q4: A	Q4: B	Q4: B	Q4: B
Q5a:	Q5: B	Q5: B	Q5: A
Q5b: B	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 intact.
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 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: OG-1

ProjectNumber: 7965096

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. Less than 0.5 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. Agricultural 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 intact.	More than 75% of stream shaded by riparian vegetation. Stream channel natural/returning to natural physical character. Stream contains more than 25% of instream structures. Upstream not listed as water quality limited. Agricultural land use within 500 ft 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. 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. Emergent veg. and ponding, or open water only are the dominant cover types.

Enhancement Potential

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: OG-1

ProjectNumber: 7965096

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 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 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, but observation of other features can 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. 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.	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 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: OG-1

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: OG-1

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,
- Yes** 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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 06/10/98

Wetland Mapping Code: OG-2

Investigator(s): DC/JG

Size (acres): 0.12

Location

Legal: T6S, R1W, S34

Other: 300 feet west of Cascade Highway

Basin: Silver Creek

Soils

Mapped Series: Amity silt loam, McAlpin silty clay loam

Hydrology

Hydrologic Source: Stream from O.G.C.

Wetland Classification(s): RUB perennial

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Mimulus guttatus

Cirsium vulgare

Holcus lanatus

Agrostis stolonifera

Comments:

Wetland OG-2 is an apparently perennial stream flowing in an excavated, straightened channel through an agricultural field used by the Silverton High School Future Farmers of America program. The channel is about 18-24 inches deep and 5 feet wide. At the time of the study, maximum depth of water in the ditch was approximately 6 inches. The field the ditch is in did not present wetland vegetation characteristics. Vegetation listed above was within the banks of the ditch. The tops of the banks were dominated by *Festuca arundinaceae* (Kentucky fescue), *Rosa pisocarpa* (clustered rose), and *Symphoricarpos albus* (snowberry). Vegetation in the surrounding field consisted primarily of a variety of grasses and thistles.

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 Silverton Site: Robert Frost Elm Sch. Plot: 4
 T 6S R 1W S 34 City: Silverton County: Marion State: OR
 Plot Location; Topography ~300' W of Cascade Highway on School FFA land; in ditch
 Project #: 7965096.1 Determined by: DC/JG Date: 6/10/98

DETERMINATION: IS THIS PLOT IN A WETLAND?: Yes

Comments: Ditch excavated - 1.5'-2' deep, 5' wide. Sloping thin soils, where downslope groundwater keeps soils saturated long enough to produce anaerobic conditions and reduced soils.

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>Mimulus guttatus</i>	OBL	60	
<i>Agrimonia striata</i>	FACU	20	
<i>Holcus lanatus</i>	FAC	20	
<i>Cirsium vulgare</i>	FACU	1	
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)

Remarks: Veg. in ditch, not surrounding. Veg. on bank dominated by Festuca arundinacea and Rosa pisocarpa + Symphoricarpos albus.

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: McAlpin silty clay loam
 Drainage Class: Moderately well drained + somewhat poorly drained
 Taxonomy: Fine, mixed, mesic Cumulic Ultic Haploxerolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0 -	10 YR 3/2	N/A	silty clay 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: Sloping thin soils, over a relatively impermeable sublayer, that stays saturated without showing strong reduction conditions

Soil Criterion Met? No

HYDROLOGY

Depth of inundation 3"-6" Depth to water table: 0" 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
 - Other
- Explain: _____
- Explain: _____

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Silverton Site: Robert Frost Elem. Sch. Plot: 5
 T 6S R 1W S 34 City: Silverton County: Marion State: OR
 Plot Location; Topography 20' S of plot 4, in ag field - level
 Project #: 7965096.1 Determined by: DC/JG Date: 6/10/98

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>Holcus lanatus</i>	FAC	60	
<i>Festuca arundinacea</i>	FAC-	15	
<i>Cirsium arvense</i>	FACU	15	
<i>Rubus acaulis</i>	FAC+	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)

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: McAlpin Silty Clay Loam

Drainage Class: Moderately well drained + somewhat poorly drained

Taxonomy: Fine mixed mesic Cumlulic Ultic Haploxerolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	<u>0-5"</u>	<u>10 YR 3/2</u>		<u>silty clay loam</u>
	<u>5-18"</u>	<u>7.5 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 type="checkbox"/> On hydric soils list |

Soil Criterion Met? No

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
- Explain:
- Other
- Explain:

Hydrology Criterion Met? No

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	6/10/98	Investigator(s):	DC/JG
Project Name:	City of Silverton		
WetlandCode:	OG-2	ProjectNumber:	7965096

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

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: B	Q1: C	Q1: C
Q2: A	Q2: A	Q2: C	Q2: C
Q3: A	Q3: B	Q3: C	Q3: A
Q4: B	Q4: B	Q4: B	Q4: B
Q5a:	Q5: B	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 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 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 oport
Aesthetic Quality:	The wetland is not pleasing.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: OG-2	ProjectNumber: 7965096
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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 interspersion. Less than 0.5 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. Agricultural 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. Agricultural land use within 500 ft 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. Evidence of flooding or ponding during part of the growing season. Low (<60%) degree of wetland vegetation cover. Less than 0.5 acre and wetland is not connected to other wetland 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 less than 0.5 acre. 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 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	Wetland has lost one or more functions or

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: OG-2	ProjectNumber: 7965096
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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. 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, but observation of other features can 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 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). 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: OG-2

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: OG-2

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 06/03/98

Wetland Mapping Code: OG-3

Investigator(s): DC/JG

Size (acres): 5.56

Location

Legal: T7S, R1W, S3

600, 700, 900, 1000

Other: 200 yards west of Eureka Way

Basin: Silver Creek

Soils

Mapped Series: McAlpin silty clay loam, Witzel very stoney silt loam

Hydrology

Hydrologic Source: Surface drainage (stream) from south

Wetland Classification(s): PEM, RUB perennial

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Rubus discolor

Mimulus guttatus

Agrostis tenuis

Conium maculatum

Holcus lanatus

Veronica americana

Epilobium watsonii

Asclepias sp.

Comments:

Wetland OG-3 is a small, perennial stream, pond, and associated palustrine emergent wetland in the bottom of a small drainage that flows into the eastern part of the Oregon Garden. The pond was formed by construction of an earthen dam across the stream. Vegetation (including wetland plants) has been removed mechanically from a broad area on both sides of the stream and pond. The area was used for many years as a horse pasture. The cleared upland area is being revegetated by opportunistic, generally weedy species. The stream channel has been altered by operation of heavy equipment. The channel in many places is shallow, braided, and heavily silted. Soil in this wetland is problematic; it does not develop or present typical hydric indicators.

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 Silverton Site: Eureka Ave. Plot: 2
 T 7S R 1W S 3 City: Silverton County: Marion State: OR
 Plot Location; Topography 200 yds. W of Eureka Way; E of O.G.C. in drainage swale
 Project #: 7965096.1 Determined by: DC/JG Date: 6/3/98

DETERMINATION: IS THIS PLOT IN A WETLAND?: Yes

Comments: Sloping thin soils, where downslope groundwater keeps soils saturated long enough to produce anaerobic conditions and reduced soils.

Do Normal Circumstances exist on the site? No

Explanation: Area has been cleared with in last year.

Are Soils Vegetation Hydrology significantly disturbed? Yes

Explanation: Soil has been scraped.

VEGETATION	Dominant Plant Species	Ind.	% Cover:		Ind.	% Cover:
Herb Stratum	- % total cover:		90	Shrub/Sapling Stratum	- % total cover:	0
	<i>Agrostis tenuis</i>	FAC	40			
	<i>Mimulus guttatus</i>	OBL	40			
	<i>Conium maculatum</i>	FAC+	10			
	<i>Holcus lanatus</i>	FAC	5			
Woody Vine Stratum	- % total cover:		10	Tree Stratum	- % total cover:	0
	<i>Rubus discolor</i>	FACU	100			

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

Remarks: Area has been cleared w/in last year. Other minor species present include *Asclepias speciosa*, *Epilobium watsonii*, *Veronica americana*.

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Witzer very stony silt loam
 Drainage Class: Well drained
 Taxonomy: Loamy - skeletal, mixed, mesic, Lithic Ultic Haploxerolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	0 - 12"	7.5 YR 3/2		
	12 -	7.5 YR 3/4		

- | | | | |
|--|--|---|---|
| <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: Sloping thin soils, over a relatively impermeable sublayer, that stays saturated without showing strong reduction conditions

Soil Criterion Met? No

HYDROLOGY

Depth of inundation 1" Depth to water table: 0" 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
- Other Explain:

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Silverton Site: Eureka Ave. Plot: 3
 T 7S R 1W S 3 City: Silverton County: Marion State: OR
 Plot Location; Topography 20 yds N of #2 - 5' higher
 Project #: 7965096.1 Determined by: DC/JG Date: 6/3/98

DETERMINATION: IS THIS PLOT IN A WETLAND?: No

Comments: Sloping thin soils, downslope GW keeps soils sat. enough to prod. anaerobic cond. & reduced soils.

Do Normal Circumstances exist on the site? No

Explanation: Site cleared w/in last year.

Are Soils **Vegetation** **Hydrology** **significantly disturbed?** Yes

Explanation: Soil has been scraped.

VEGETATION	Dominant Plant Species	Ind.	% Cover:		Ind.	% Cover:
Herb Stratum - % total cover:			40	Shrub/Sapling Stratum - % total cover:		0
	<i>Agrostis tenuis</i>	FAC	30			
	<i>Conium maculatum</i>	FAC+	20			
	<i>Cirsium vulgare</i>	FACU	10			
	<i>Festuca arundinacea</i>	FAC-	5			
	<i>Dactylis glomerata</i>	FACU	1			
	<i>Epilobium watsonii</i>	FACW	1			
	<i>Vicia sativa</i>	UPL	1			
Woody Vine Stratum - % total cover:			60	Tree Stratum - % total cover:		0
	<i>Rubus discolor</i>	FACU	100			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 2 of 4 = 50 % (50/20 Rule)

Remarks: Mustard sp. - very open, fine growth to ~ 2 m; 5%

Vegetation Criterion Met? No

SOILS Mapped Unit Name: Witzel very stony silt loam
 Drainage Class: Well drained
 Taxonomy: Loamy - skeletal, mixed, mesic Lithic Ultic Haploxerolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	<u>0-8"</u>	<u>7.5 YR 3/2</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 type="checkbox"/> On hydric soils list |

Remarks: Refus. at 8"; rocks. Sloping thin soils, over a rel. imperm. sublayer, stays sat. w/o strong reduct. cond.

Soil Criterion Met? No

HYDROLOGY

Depth of inundation N/A Depth to water table: >8" Depth to saturation: >8"

- | | |
|---|--|
| 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: |

Hydrology Criterion Met? No

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	6/10/98	Investigator(s):	DC/JG
Project Name:	City of Silverton		
WetlandCode:	OG-3	ProjectNumber:	7965096

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

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

Wildlife Habitat:	The wetland provides diverse wildlife habitat.
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 impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	N/A
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

WetlandCode: OG-3

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides diverse wildlife habitat.	Two or more Cowardin wetland classes. Emergent veg. & ponding or open water only. 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. Upstream not listed as water quality limited. Exclusive Forest use or Open Space 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.	More than 75% of stream shaded by riparian vegetation. Stream channel natural/returning to natural physical character. Stream contains less than 10% of instream structures. Upstream not listed as water quality limited. Exclusive Forest use or Open Space within 500 ft 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.	More than 75% 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. Exclusive Forest use or Open Space within 500 ft 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. Exclusive Forest use or Open Space 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 more than 5 acres. Waterflow out of wetland is unrestricted. Emergent veg. and ponding, or open water only is dominant cover type. Exclusive Forest Use or Open Space within 500 ft of wetland on downstream or down-slope edge of wetland. Forested or natural area land use upstream.
<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

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: OG-3

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		the or adjacent to the wetland. Exclusive Forest use or Open Space 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>	N/A	
<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. Results of wildlife habitat and fish habitat assessment criteria prove wetland provides diverse Wildlife Habitat, or Fish Habitat function is intact. 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 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 diverse wildlife habitat. 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 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: OG-3

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 **A**
List: Oregon Gardens

Question 8 **B**

Question 9 **B**

Question 10 **B**

Silverton
Local Wetland Significance Assessment

WetlandCode: OG-3

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:

Yes 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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 07/01/98

Wetland Mapping Code: SC-1

Investigator(s): DC/CM

Size (acres): 0.19

Location

Legal: T6S, R1W, S34

400

Other: Northwest of Robert Frost Elem. Sch.

Basin: Silver Creek

Soils

Mapped Series: Amity silt loam, Silverton silt loam (SuC)

Hydrology

Hydrologic Source: Groundwater and surface flow from seep

Wetland Classification(s): POW

Dominant Vegetation

Trees	Shrubs	Vines	Herbs
<i>Populus trichocarpa</i>	<i>Salix scouleriana</i>	<i>Rubus discolor</i>	<i>Festuca arundinacea</i>
<i>Salix sitchensis</i>			<i>Agrostis stolonifera</i>
			<i>Holcus lanatus</i>
			<i>Mimulus guttatus</i>
			<i>Veronica americana</i>
			<i>Ranunculus recurvatus</i>
			<i>Myosotis arvensis</i>
			<i>Rumex crispus</i>
			<i>Juncus effusus</i>

Comments:

Wetland SC-1 is a small pond on the northern edge of the Robert Frost Elementary School grounds. It is surrounded by a narrow band of wetland trees and shrubs. Soil conditions indicate that the pond may have been excavated at some time in the past for use as an irrigation or stock pond.

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 Silverton Site: Robert Frost School Plot: 14
 T 6S R 1W S 34 City: Silverton County: Marion State: OR
 Plot Location; Topography NW of Robert Frost Elem. Edge of pond in flowing seep.
 Project #: 7965096.1 Determined by: DC/DG Date: 7/1/98

DETERMINATION: IS THIS PLOT IN A WETLAND?: Yes

Comments: Possible historic irrigation pond. Pond area appears to be excavated below the seep.

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:		<u>0</u>	Shrub/Sapling Stratum - % total cover: <u>40</u>
			<i>Salix scouleriana</i> FAC 100
Woody Vine Stratum - % total cover:		<u>10</u>	Tree Stratum - % total cover: <u>60</u>
<i>Rubus discolor</i> FACU 100			<i>Salix sitchensis</i> FACW 80
			<i>Populus trichocarpa</i> FAC 20

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: Amity silt loam
 Drainage Class: Somewhat poorly drained
 Taxonomy: Fine, silty, mixed, mesic Agriaquil Xeric Agriabolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	<u>0-5</u>	<u>10 YR 3/1</u>		<u>Silty muck</u>
	<u>5-10</u>	<u>7.5 YR 4/3</u>		<u>silty clay loam - High clay content</u>
	<u>10-14</u>	<u>10 YR 3/2</u>		<u>silty clay loam</u>
		<u>7.5 YR 3/2</u>		<u>silty clay loam - high clay content</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 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: Soil horizons appear to have been layered due to excavation.

Soil Criterion Met? Yes

HYDROLOGY

Depth of inundation <1" Depth to water table: >18" Depth to saturation: surface-5"

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: Plot located in flowing broad seep approximately 10 ft. wide. 1/2 - 1 inch inundation. Seep flows into pond (2+ ft depth) 15' from seep. Plot 15 feet S of pond.

Hydrology Criterion Met? Yes

WETLAND DETERMINATION DATA SHEET - 1987 MANUAL

Client/Applicant: City of Silverton Site: Robert Frost School Plot: 15
 T 6S R 1W S 34 City: Silverton County: Marion State: OR
 Plot Location; Topography West of Baptist church and Robert Frost Elem. 25 feet W of pond.
 Project #: 7965096.1 Determined by: DC/ DG Date: 7/1/98

DETERMINATION: IS THIS PLOT IN A WETLAND?: No

Comments: Field becoming overgrown with shrubs

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: 15		
<i>Festuca arundinacea</i>	FAC-	90	<i>Rhamnus purshiana</i>	FAC-	100
<i>Galium aparine</i>	FACU	10			
Woody Vine Stratum - % total cover:		10	Tree Stratum - % total cover: 0		
<i>Rubus laciniatus</i>	FACU	40			
<i>Rubus ursinus</i>	FACU	30			
<i>Rubus discolor</i>	FACU	30			

Percent of Dominant Species that are OBL, FACW, or FAC (excluding FAC-) 0 of 5 = 0 % (50/20 Rule)

Vegetation Criterion Met? No

SOILS Mapped Unit Name: Amity silt loam
 Drainage Class: Somewhat poorly drained
 Taxonomy: Fine, silty, mixed, mesic Agriaquic Xeric Agriabolls

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 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 type="checkbox"/>	On hydric soils list

Soil Criterion Met? No

HYDROLOGY

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

- | | | |
|---|--|--|
| 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

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	7/1/98	Investigator(s):	DC/DG
Project Name:	City of Silverton		
Wetland Code:	SC-1	Project Number:	7965096

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

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: B	Q1: C
Q2: B	Q2: A	Q2: C	Q2: B
Q3:	Q3: B	Q3: B	Q3: A
Q4: C	Q4: B	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:	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 lost or not present.
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: SC-1	ProjectNumber: 7965096
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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. 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 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. 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>	The wetland's fish habitat function is impacted or degraded.	Less than 50% of stream shaded by riparian vegetation. Stream channel natural/returning to natural physical character. Stream contains more than 25% 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 lost or not present.	Groundwater (including seeps and springs) 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. Less than 0.5 acre and wetland is not connected to other wetland 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 less than 0.5 acre. Minor restrictions slow down waterflow out of the wetland. 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 not 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: SC-1

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		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 groundwater, including springs and seeps. Wetland's area is less than 0.5 acre. 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 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. Existing undeveloped trails and viewing areas 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). 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 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: SC-1

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: SC-1

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification:

Wetland Mapping Code: SC-2

Investigator(s): DC/ JG

Size (acres): 0.94

Location

Legal: T6S, R1W, S35

400

Other: Shelokum Drive

Basin: Silver Creek

Soils

Mapped Series: Nekia silty clay loam (NeB)

Hydrology

Hydrologic Source: Surface water from seep, groundwater

Wetland Classification(s): POW

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. Wetland SC-2 is a constructed, open-water wetland in a developing residential area. The banks of the pond are fairly steep, with what appears to be poor quality soil. A very narrow (approximately 1 to 3 feet) band of vegetation is on the pond margin. A few large trees (Douglas-fir (*Pseudotsuga menziesii*) and Oregon white oak (*Quercus garryana*)) remain near the pond, with three or four close enough to shade perhaps 15% of the surface at various times of the day. Herbaceous vegetation near the pond is primarily weedy species colonizing a disturbed site. Water for the pond comes from a seep at the eastern end. The outlet for the pond is a drain system that conveys water downslope to the west. The water then flows through street-side ditches and storm drains into Silver 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):	6/26/98	Investigator(s):	JG
Project Name:	City of Silverton		
WetlandCode:	SC-2	ProjectNumber:	7965096

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

Enhancement Potential	Education	Recreation	Aesthetic Quality
Q1: B	Q1: A	Q1: A	Q1: C
Q2: B	Q2: A	Q2: C	Q2: A
Q3:	Q3: B	Q3: C	Q3: A
Q4: B	Q4: A	Q4: B	Q4: B
Q5a:	Q5: A	Q5: B	Q5: A
Q5b: B	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:	The wetland's fish habitat function is impacted or degraded.
Water Quality:	The wetland's water quality function is lost or not present.
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: SC-2	ProjectNumber: 7965096
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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 interspersed. 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. Exclusive Forest use or Open Space 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>	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. Exclusive Forest use or Open Space within 500 ft of wetland edge. No fish species present during the year.
<i>Water Quality</i>	The wetland's water quality function is lost or not present.	Groundwater (including seeps and springs) 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. Exclusive Forest use or Open Space 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.	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 restricted or no outlet. Emergent veg. and ponding, or open water only is dominant cover type. Exclusive Forest Use or Open Space within 500 ft of wetland on downstream or down-slope edge of wetland. Forested or natural area land use upstream.
<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. Exclusive Forest use or Open Space within 500 feet of wetland's edge. Dominant

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-2

ProjectNumber: 7965096

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 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 groundwater, including springs and seeps. 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 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 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). 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: SC-2

-
- 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**
-

Silverton
Local Wetland Significance Assessment

WetlandCode: SC-2

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification:

Wetland Mapping Code: SC-3

Investigator(s): DC/JG

Size (acres): 1.82

Location

Legal: T7S, R1W, S1

300

Other: West of Ike Mooney Road

Basin: Silver Creek

Soils

Mapped Series: Nekia silty clay loam (NeC)

Hydrology

Hydrologic Source: Intermittent stream

Wetland Classification(s): POW

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. Wetland SC-3 is an open-water wetland. The pond appears to have been formed by excavation in a small streambed or construction of an earthen dam across the stream, or a combination of both. The stream supplying water to the pond is probably seasonally intermittent and drains a small basin northwest of the pond. A majority of the basin was used as pasture at the time of the study. Shrubs grow on all sides of the pond. They are not of sufficient size or proximity to shade the pond. Water leaving this pond apparently flows into wetland SC-4.

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): 6/26/98	Investigator(s): DC/JG
Project Name: City of Silverton	
WetlandCode: SC-3	ProjectNumber: 7965096

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

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

Wildlife Habitat:	The wetland provides diverse wildlife habitat.
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 impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	N/A
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: SC-3	ProjectNumber: 7965096
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Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides diverse wildlife habitat.	One Cowardin wetland class with more than 5 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 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. Agricultural 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>	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. Agricultural land use within 500 ft of wetland edge. Salmon, trout, or sensitive species present sometime 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. 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 restricted or no outlet. 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 not 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.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-3	ProjectNumber: 7965096
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Function	Evaluation Descriptor	Rationale
		Emergent veg. and ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	N/A	
<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. Results of wildlife habitat and fish habitat assessment criteria prove wetland provides diverse Wildlife Habitat, or Fish Habitat function is intact. 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 diverse wildlife habitat. 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 open or naturally landscaped. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: SC-3

Question 1	B
	<i>List:</i>
<hr/>	
Question 2	B
	<i>List:</i>
<hr/>	
Question 3	B
	<i>List:</i>
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Question 4	B
	<i>List:</i>
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Question 5	B
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Question 6	B
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Question 7	B
	<i>List:</i>
<hr/>	
Question 8	B
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Question 9	B
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Question 10	B
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Silverton
Local Wetland Significance Assessment

WetlandCode: SC-3

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:

Yes 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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification:

Wetland Mapping Code: SC-4

Investigator(s): DC/JG

Size (acres): 2.08

Location

Legal: T7S, R1W, S1

202

Other: West of Ike Mooney Road

Basin: Silver Creek

Soils

Mapped Series: Nekia silty clay loam (NeB, NeC)

Hydrology

Hydrologic Source: Intermittent stream

Wetland Classification(s): POW

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. Wetland SC-4 is an open-water wetland. The pond appears to have been formed by excavation in a small streambed or construction of an earthen dam across the stream, or a combination of both. The stream supplying water to the pond is probably seasonally intermittent, drains a small basin northwest of the pond, and flows out of wetland SC-3 into SC-4. A majority of the basin was used as pasture at the time of the study. Most of the vegetation around the pond is low herbaceous, with approximately 15% shrubs. Evergreen trees grow along part of the northern shore of the pond. Water flows out of the wetland into wetland complex SC-5a, and eventually into Silver 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): 6/26/98	Investigator(s): JG
Project Name: City of Silverton	
WetlandCode: SC-4	ProjectNumber: 7965096

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

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

Wildlife Habitat:	The wetland provides diverse wildlife habitat.
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 impacted or degraded.
Sensitivity to Impact:	The wetland is potentially sensitive to future impacts.
Enhancement Potential:	N/A
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: SC-4

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
<i>Wildlife Habitat</i>	The wetland provides diverse wildlife habitat.	One Cowardin wetland class with more than 5 plant species. Emergent veg. & ponding or open water only. Low degree of Cowardin class interspersions. 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. Agricultural 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>	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. Agricultural land use within 500 ft of wetland edge. Salmon, trout, or sensitive species present sometime 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. 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 restricted or no outlet. 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.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-4	ProjectNumber: 7965096
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Function	Evaluation Descriptor	Rationale
		Emergent veg. and ponding, or open water only are the dominant cover types.
<i>Enhancement Potential</i>	N/A	
<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. Results of wildlife habitat and fish habitat assessment criteria prove wetland provides diverse Wildlife Habitat, or Fish Habitat function is intact. 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 diverse wildlife habitat. 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 open or naturally landscaped. Natural, pleasant odors are present at primary viewing location. Some traffic and other similar sounds and natural sounds are audible at primary viewing locations.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: SC-4

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: SC-4

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:

- Yes** 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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification: 06/03/98

Wetland Mapping Code: SC-5a, b, c

Investigator(s): DC/JG

Size (acres): 4.57

Location

Legal: T7S, R1W, S1

201, 202, 600, 1700

Other: West and east of Ike Mooney Road

Basin: Silver Creek

Soils

Mapped Series: McAlpin silty clay loam, Nekia silty clay loam (NeB)

Hydrology

Hydrologic Source: Surface runoff

Wetland Classification(s): PEM, RUB intermittent

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

Wetland complex SC-5 consists of a swale and drainage ditches in agricultural land between Ike Mooney Road and Quall Road. Access was granted only to SC-5c. SC-5c is a network of ditches in a cultured evergreen tree plantation. The main channel flows northwest across the field from Quall Road. A smaller channel joins it near the western edge of the field. A third ditch brings water southwest along the western boundary of the field. Water from all of these ditches flows through a culvert under a barnyard and enters SC-5b. The location and appearance of the ditch indicate that it is not a perennial stream. The surrounding field is largely devoid of vegetation, with the exception of the cultured evergreen trees in the plantation. The water flows out the bottom (western) side of the field in a culvert. Upon leaving the culvert, water enters SC-5b, a drainage ditch through a field. Water flowing through the ditch passes under Ike Mooney Road in a culvert and then through a ditch along the bottom (southern) end of SC-5a. SC-5a is a swale in a grassy field west of Ike Mooney Road. This wetland is apparently supported by precipitation and groundwater. No surface water was visible in the field at the time of the study.

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 Silverton Site: 15095 Ouall Rd. Plot: 1
 T 7S R 1W S 1 City: Silverton County: Marion State: OR
 Plot Location; Topography West of Quall Road ; in ditch, well defined; in broad swale.
 Project #: 7965096.1 Determined by: DC/JG Date: 6/3/98

DETERMINATION: IS THIS PLOT IN A WETLAND?: Yes

Comments: Ditch is excavated, well defined. It is considered a wetland despite the lack of indicators in the soil due to presence of hydrophytic vegetation and inundation.

Do Normal Circumstances exist on the site? Yes

Are Soils Vegetation Hydrology significantly disturbed? Yes

Explanation: Excavated ditch/ ag. Field

VEGETATION	Dominant Plant Species	Ind.	% Cover:	Ind.	% Cover:
Herb Stratum - % total cover:			100	Shrub/Sapling Stratum - % total cover:	
	<i>Festuca arundinacea</i>	FAC-	30		
	<i>Agrimonia striata</i>	FACU	30		
	<i>Holcus lanatus</i>	FAC	30		
	<i>Juncus effusus</i>	FACW	2		
	<i>Mimulus guttatus</i>	OBL	2		
	<i>Veronica americana</i>	OBL	2		
Woody Vine Stratum - % total cover:			0	Tree Stratum - % total cover:	

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

Remarks: * Vegetation in ditch; others adjacent

Vegetation Criterion Met? Yes

SOILS Mapped Unit Name: Mc Alpin silty clay loam A
 Drainage Class: Moderately well drained + somewhat poorly drained
 Taxonomy: Fine, mixed, mesic Cumulic Ultic Haplo Xerolls

FIELD SOIL CHARACTERISTICS:

Horizon	Depth	Matrix Color	Redox Abundance, Size, Color	Texture, Structure, Other
	<u>0-18"</u>	<u>10 YR 3/2</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 type="checkbox"/> On hydric soils list	

Soil Criterion Met? No

HYDROLOGY

Depth of inundation 20" Depth to water table: >18" Depth to saturation: 0"

- | | |
|--|--|
| <p>Primary Indicators:</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> Inundated <input checked="" type="checkbox"/> Saturated in upper 12" <input type="checkbox"/> Water marks <input type="checkbox"/> Drift lines <input type="checkbox"/> Sediment deposits <input checked="" type="checkbox"/> Drainage patterns | <p>Secondary Indicators (2 or more required):</p> <ul style="list-style-type: none"> <input type="checkbox"/> Oxidized rhizospheres <input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Recorded data (aerials, groundwater data) <input type="checkbox"/> Local soil survey data <input type="checkbox"/> FAC-Neutral test <p>Explain: _____</p> <p><input type="checkbox"/> Other</p> <p>Explain: _____</p> |
|--|--|

Remarks: adjacent to inundated ditch (20" water); ~ 3' wider, flow to west

Hydrology Criterion Met? Yes

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s): 6/26/98	Investigator(s): JG
Project Name: City of Silverton	
WetlandCode: SC-5	ProjectNumber: 7965096

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: B	Q1:	Q1:	Q1: C	Q1: B	Q1: B
Q2: C	Q2:	Q2:	Q2: C	Q2: C	Q2: B
Q3: C	Q3:	Q3:	Q3: B	Q3: B	Q3: C
Q4: A	Q4:	Q4:	Q4: B	Q4: C	Q4: B
Q5: A	Q5:	Q5:	Q5: C	Q5: C	Q5: A
Q6: A	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: B	Q2: A	Q2: C	Q2: A
Q3:	Q3: B	Q3: C	Q3: A
Q4: B	Q4: B	Q4: B	Q4: B
Q5a:	Q5: C	Q5: B	Q5: A
Q5b: C	Q6: B	Q6: B	Q6: B
Q6: A			

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 lost or not present.
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 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: SC-5

ProjectNumber: 7965096

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. 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 lost or not present.	Groundwater (including seeps and springs) 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. Exclusive Forest use or Open Space 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. 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 not 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. Wetland's primary source of water is groundwater, including springs and seeps. Wetland's area is between 0.5 and 5 acres.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-5

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		Less than 10% of wetland's edge is bordered by a vegetative buffer 25 or more feet wide. Wetland is not 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, but observation of other features can 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: SC-5

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: SC-5

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.

SILVERTON LOCAL WETLANDS INVENTORY

- Wetland Summary Sheet -

Date(s) of Field Verification:

Wetland Mapping Code: SC-6

Investigator(s): DC/JG

Size (acres): 0.91

Location

Legal: T7S, R1W, S1

600

Other: Between Ike Mooney Road and Quall Road

Basin: Silver Creek

Soils

Mapped Series: Nekia silty clay loam (NeB)

Hydrology

Hydrologic Source: Precipitation, surface runoff

Wetland Classification(s): PEM

Dominant Vegetation

Trees

Shrubs

Vines

Herbs

Comments:

OFFSITE DETERMINATION. Wetland SC-6 is an isolated wetland in an agricultural field. Vegetation at the time of the study was primarily grasses. No water was visible in the wetland at the time of the study. No surface drainage was visible. Water from this wetland apparently percolates into the 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

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Date(s):	6/26/98	Investigator(s):	JG
Project Name:	City of Silverton		
WetlandCode:	SC-6	ProjectNumber:	7965096

Wildlife Habitat	Fish Habitat Streams	Fish Habitat Lakes/Ponds	Water Quality	Hydrologic Control	Sensitivity to Impact
Q1: B	Q1:	Q1:	Q1: C	Q1: B	Q1: B
Q2: C	Q2:	Q2:	Q2: C	Q2: C	Q2: B
Q3: C	Q3:	Q3:	Q3: B	Q3: C	Q3: A
Q4: C	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: B	Q2: A	Q2: C	Q2: A
Q3:	Q3: B	Q3: C	Q3: A
Q4: C	Q4: B	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 lost or not present.
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: SC-6

ProjectNumber: 7965096

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. 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.	Groundwater (including seeps and springs) 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 lost or not present.	No part of wetland located within 100-year floodplain or enclosed basin. No evidence of flooding or ponding during the growing season. Area is less than 0.5 acre. 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 not 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. 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. Wetland's primary source of water is groundwater, including springs and seeps.

OREGON FRESHWATER WETLAND ASSESSMENT METHODOLOGY

Function and Condition Summary Sheet for the Oregon Method

WetlandCode: SC-6

ProjectNumber: 7965096

Function	Evaluation Descriptor	Rationale
		Wetland's area is less than 0.5 acre. 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, but observation of other features can 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.

Silverton
Wetlands of Special Interest for Protection Assessment
Answer Sheet

WetlandCode: SC-6

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**

Silverton
Local Wetland Significance Assessment

WetlandCode: SC-6

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.

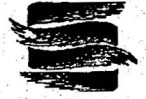
No Contains one or more rare wetland plant communities including those listed in the Oregon Natural Heritage Program's CLASSIFICATION AND CATALOG OF NATIVE WETLAND PLANT COMMUNITIES IN OREGON as G1-G3 and S1-S3.

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.



Appendix C

Riparian Data and Summary Sheets

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-1

Riparian Width Determination

Date: 6/26/98 Investigators: CM/JG

Dominant tree species: Acer macrophyllum

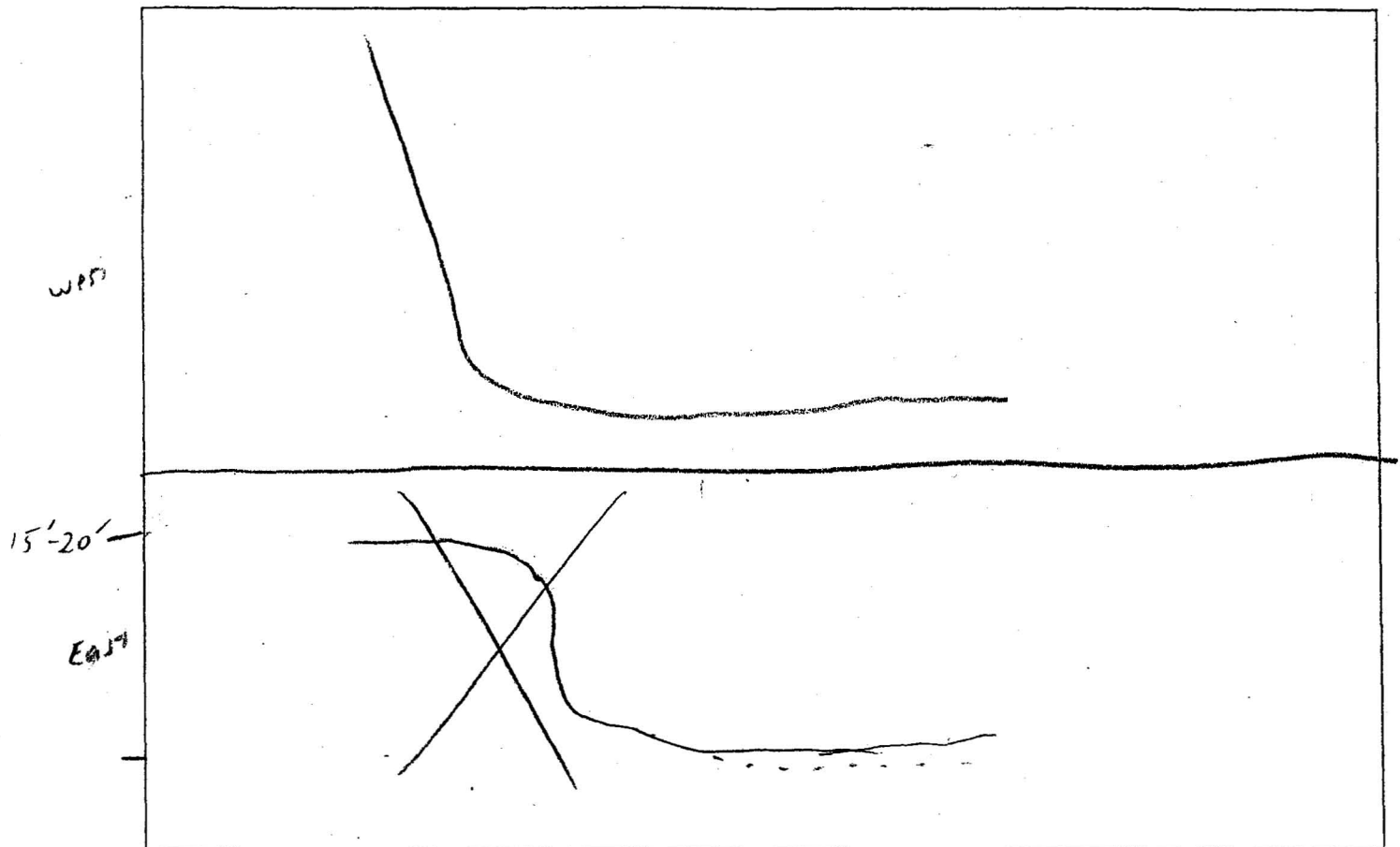
Potential tree height (PTH)/Width of Riparian Area: 90/90

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Data from E. end of Pk and central park. Reach from E. end of UGB to mid-park.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-1

Riparian Characterization Form

Part 1

General Information

Date: 6/26/98

On-site Office

Reach Length: 3,300

Investigators: CM/JG

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 50

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: NeF, MaA

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

ACER MACROPHYLLUM
FRAXINUS LATIFOLIA
ALNUS RUBRA
HOLODISCUS DISCOLOR
CORYLUS CORNUTA
HEDERA HELIX
RUBUS PARVIFLORUS
CYTISUS SCOPARIUS
ROSA PISOCARPA

Herbaceous Vegetation

HOLODISCUS DISCOLOR
RUBUS DISCOLOR
AMELANCHIER ALNIFOLIA
TELLIMA GRANDIFLORA
SONCHUS ASPER
AGROSTIS TENUIS
GERANIUM SP.
BELLIS PERENNIS

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-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: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-1

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 1
Question 2: 3
Question 3: 3
Question 4: 3
Question 5: 1
Total Points: 11

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: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 2
Question 13: 3
Question 14: 2
Question 15: 1
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 3
Total Points: 18

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-2

Riparian Width Determination

Date: 6/20/98 Investigators: JG/CM

Dominant tree species: Psuedotsuga menzesii

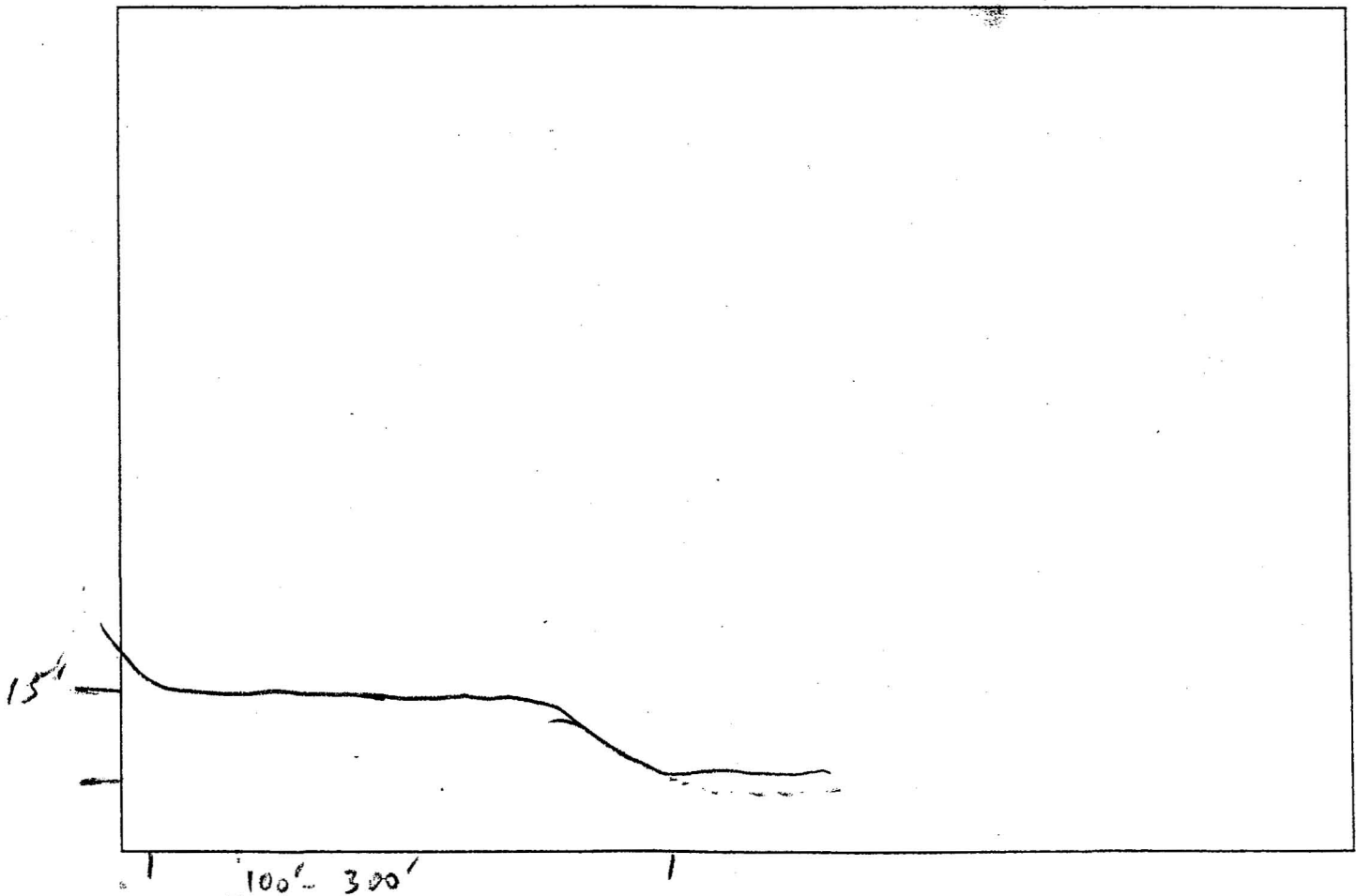
Potential tree height (PTH)/Width of Riparian Area: 120/120

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: West section, S bank in park.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-2

Riparian Characterization Form

Part 1

General Information

Date: 6/20/98

On-site Office

Reach Length: 400

Investigators: JG/CM

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 50

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: AbA

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

PSEUDOTSUGA MENZIESII

ARMERIA MARITIMA

FRAXINUS LATIFOLIA

CORYLUS CORNUTA

HOLODISCUS DISCOLOR

SALIX SP.

HEDERA HELIX

TSUGA HETEROPHYLLA

SYMPHORICARPOS ALBUS

RUBUS URSINUS

RHUS DIVERSILOBA

Herbaceous Vegetation

RANUNCULUS RECURVATUS

BELLIS PERENNIS

DACTYLIS GLOMERATA

AGROSTIS TENUIS

GALIUM APARINE

SONCHUS ASPER

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-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: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-2

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 2
Question 2: 3
Question 3: 3
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: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 1
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 3
Total Points: 19

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-3

Riparian Width Determination

Date: 7/1/98

Investigators: DC/DG

Dominant tree species: *Quercus garyana*

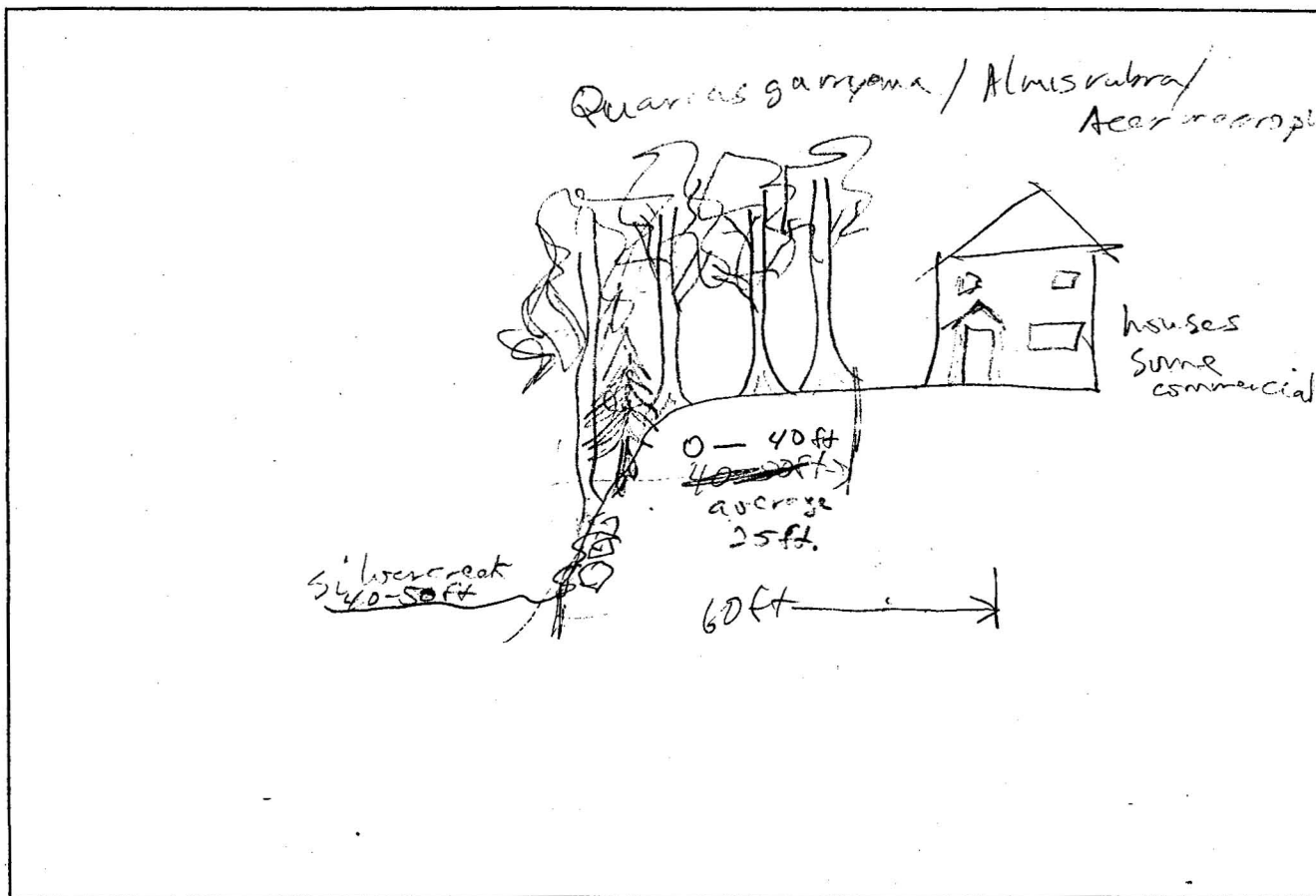
Potential tree height (PTH)/Width of Riparian Area: 60/25

(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: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-3

Riparian Characterization Form

Part 1

General Information

Date: 7/1/98

On-site Office

Reach Length: 3,000

Investigators: DC/DG

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 50

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: AbA

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

ACER MACROPHYLLUM
FRAXINUS LATIFOLIA
QUERCUS GARRYANA
POPULUS BALSAMIFERA
RUBUS DISCOLOR
ALNUS RUBRA
THUJA PLICATA

Herbaceous Vegetation

PHALARIS ARUNDINACEA
FESTUCA ARUNDINACEA
SPIRAEA DOUGLASII
HEDERA HELIX

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-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: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-3

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 1
Question 2: 3
Question 3: 3
Question 4: 2
Question 5: 2
Total Points: 11

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: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 2
Question 13: 3
Question 14: 2
Question 15: 1
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 2
Total Points: 17

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-4

Riparian Width Determination

Date: 7/9/98 Investigators: DG/CM

Dominant tree species: *Alnus rubra*

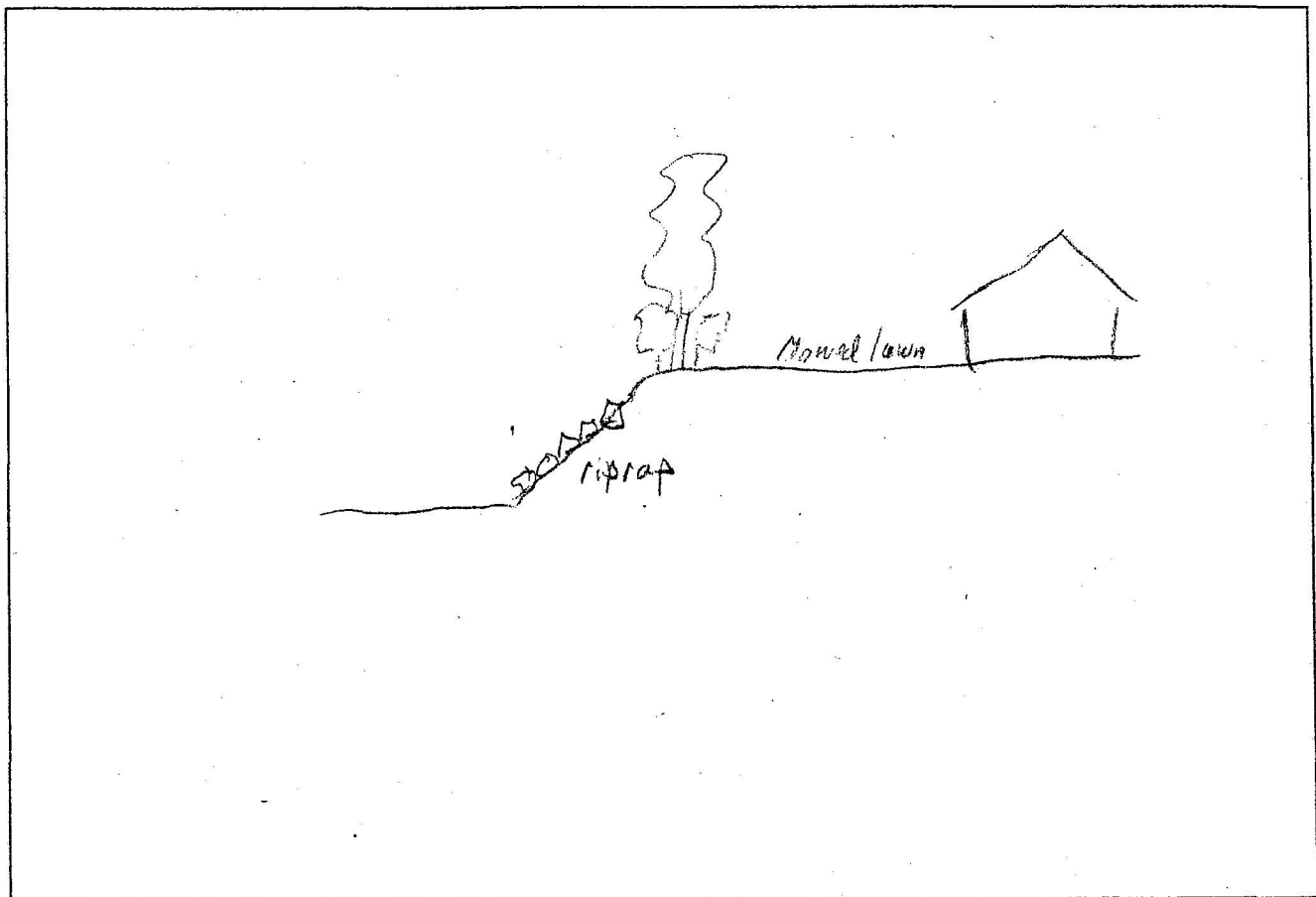
Potential tree height (PTH)/Width of Riparian Area: 65/20

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Entire length of stream segment is abutted by homes and yards. Only a narrow strip (20-40 ft.) of riparian vegetation present. Mostly trees.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-4

Riparian Characterization Form

Part 1

General Information

Date: 7/9/98

On-site Office

Reach Length: 2,400

Investigators: DG/CM

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 45

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: AbA, MaA, Wa, Sa, Nw

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

ACER MACROPHYLLUM
FRAXINUS LATIFOLIA
POPULUS BALSAMIFERA
RUBUS DISCOLOR
ALNUS RUBRA
SALIX LASIANDRA
CORNUS STOLONIFERA
THUJA PLICATA

Herbaceous Vegetation

SPIRAEA DOUGLASII
PHALARIS ARUNDINACEA
HEDERA HELIX
POLYSTICHUM MUNITUM
DACTYLIS GLOMERATA
LOTUS CORNICULATUS
SOLANUM DULCAMARA

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-4

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: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-4

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 1
Question 2: 3
Question 3: 3
Question 4: 2
Question 5: 2
Total Points: 11

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: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 2
Question 13: 3
Question 14: 2
Question 15: 1
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 2
Total Points: 17

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-5

Riparian Width Determination

Date: 7/9/98 Investigators: DG/CM

Dominant tree species: Populus balsamifera

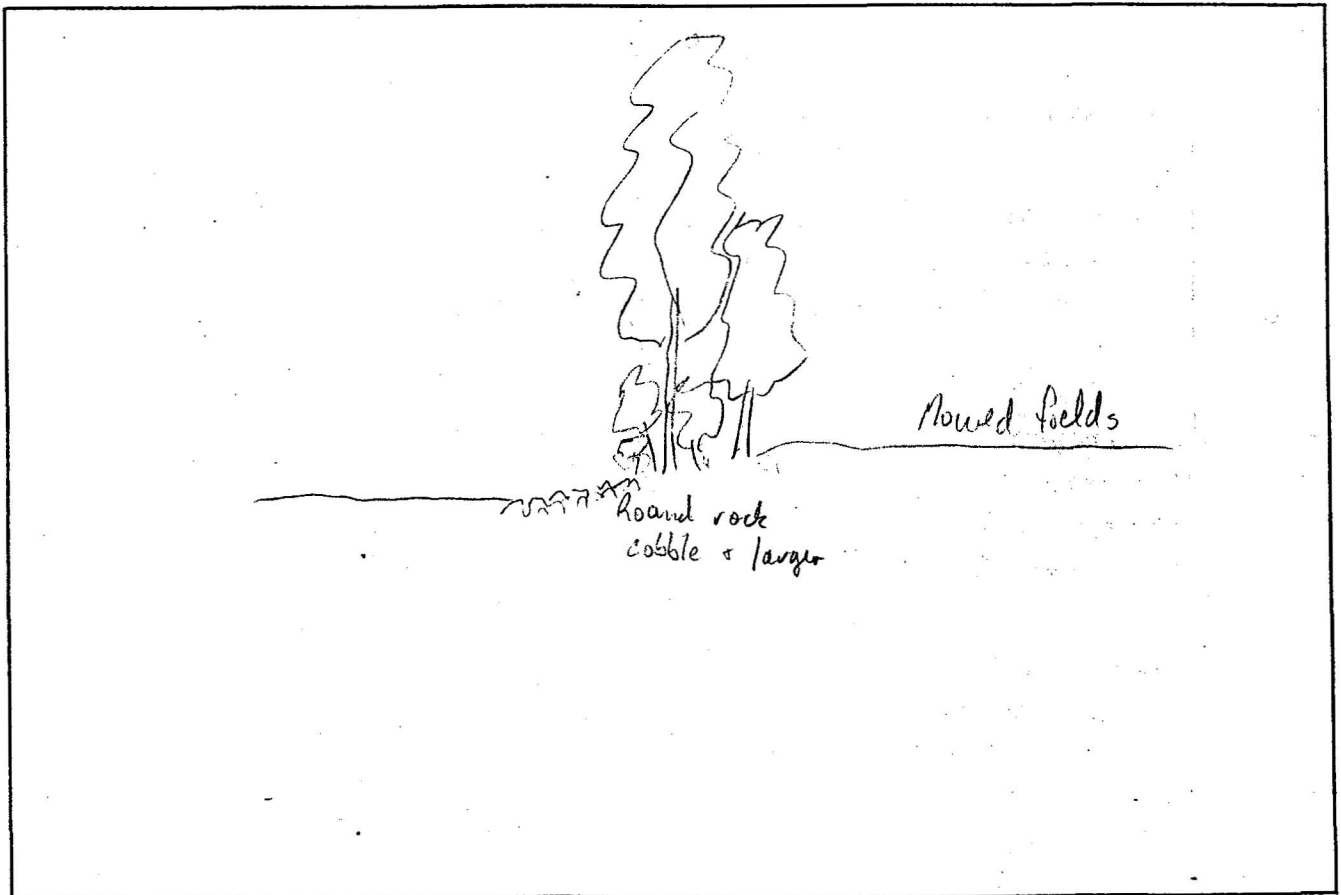
Potential tree height (PTH)/Width of Riparian Area: 120/80

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Reach begins at NE corner of Silver Creek Fellowship Property and ends at western UGB.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-5

Riparian Characterization Form

Part 1

General Information

Date: 7/9/98

On-site Office

Reach Length: 1,875

Investigators: DG/CM

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 35

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Nu, Nw

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

POA BULBOSA

RUBUS DISCOLOR

FRAXINUS LATIFOLIA

CORNUS STOLONIFERA

ACER MACROPHYLLUM

ACER CIRCINATUM

Herbaceous Vegetation

PHALARIS ARUNDINACEA

SOLANUM DULCAMARA

SALIX SCOULERIANA

EPILOBIUM WATSONII

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-5

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: 7965096.1

Project Name: Silverton

Riparian Code: SC-L-5

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 2
Question 2: 3
Question 3: 3
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: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 2
Question 13: 3
Question 14: 2
Question 15: 3
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 2
Total Points: 19

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-1

Riparian Width Determination

Date: 6/24/98 Investigators: JG/CM

Dominant tree species: Populus balsamifera

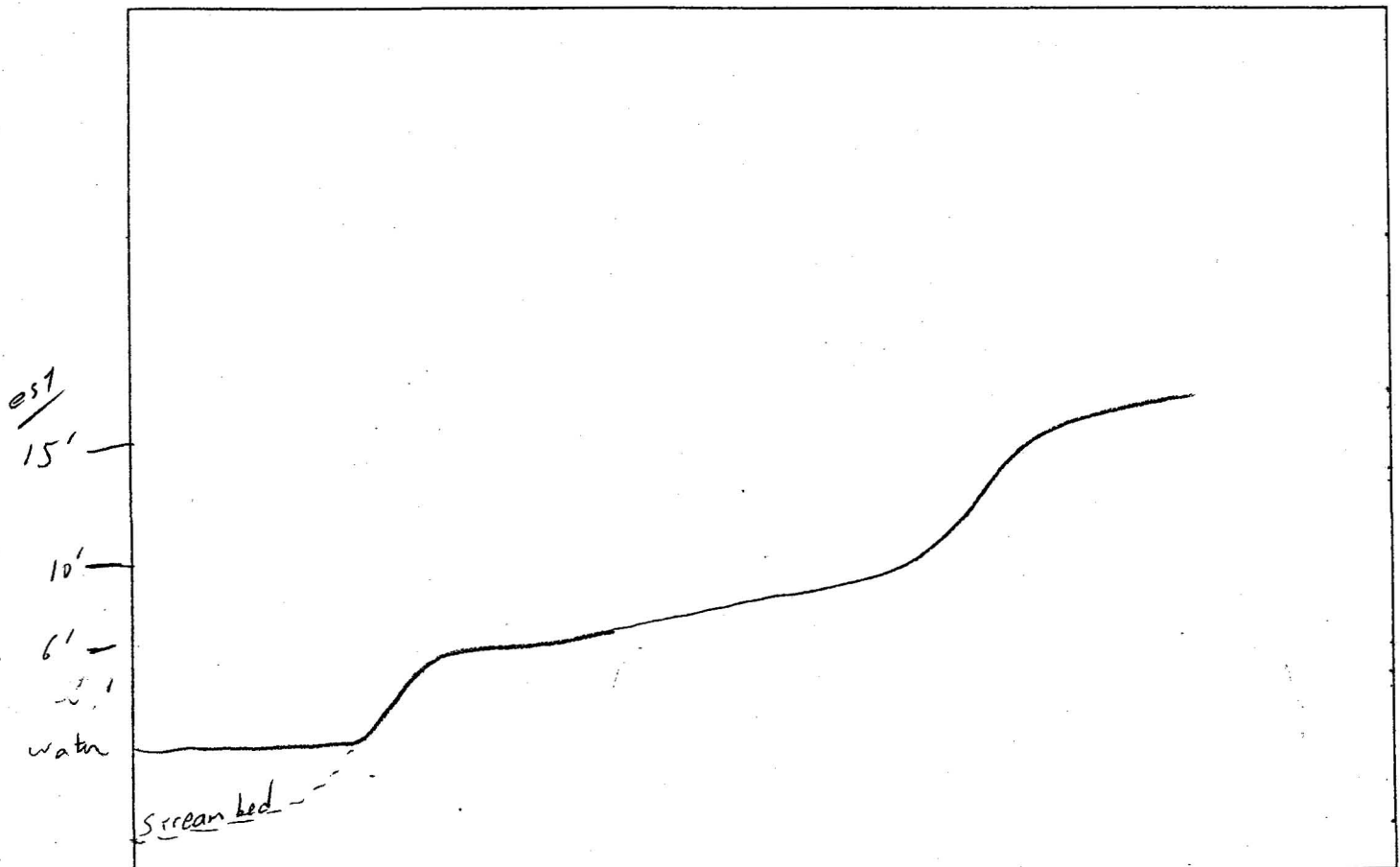
Potential tree height (PTH)/Width of Riparian Area: 120/15

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Reach bordered by ridge, family housing.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-1

Riparian Characterization Form

Part 1

General Information

Date: 6/24/98

On-site Office

Reach Length: 1,050

Investigators: JG/CM

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 50

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Ca

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

POPULUS BALSAMIFERA

FRAXINUS LATIFOLIA

ACER MACROPHYLLUM

QUERCUS GARRYANA

THUJA PLICATA

RUBUS DISCOLOR

Herbaceous Vegetation

PHALARIS ARUNDINACEA

GLYCERIA ELATA

RANUNCULUS REPENS

EPILOBIUM WATSONII

DIGITALIS PURPUREA

RUMEX CRISPUS

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-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: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-1

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 2
Question 2: 3
Question 3: 3
Question 4: 1
Question 5: 2
Total Points: 11

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: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 3
Question 16: 2
Question 17: 3
Question 18: 1
Question 19: 1
Total Points: 18

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-2

Riparian Width Determination

Date: 6/26/98 Investigators: JG/CM

Dominant tree species: Quercus garryana

Potential tree height (PTH)/Width of Riparian Area: 60/50

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Water sheet is not on top of back. Reach about roadway.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-2

Riparian Characterization Form

Part 1

General Information

Date: 6/26/98

On-site Office

Reach Length: 1,200

Investigators: JG/CM

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 50

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Ca, Sa

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

FRAXINUS LATIFOLIA
QUERCUS GARRYANA
ACER MACROPHYLLUM
ALNUS RUBRA
POPULUS BALSAMIFERA
PHYSOCARPUS CAPITATUS
AMELANCHIER ALNIFOLIA
CORYLUS CORNUTA
RUBUS URSINUS

Herbaceous Vegetation

PHALARIS ARUNDINACEA
SYMPHORICARPOS ALBUS
RANUNCULUS RECURVATUS
SONCHUS ASPER
GALIUM APARINE
URTICA DIOICA
MIMULUS GUTTATUS
POLYSTICHUM MUNITUM
BERBERIS NERVOSA
STACHYS COOLEYAE

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-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: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-2

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 1
Question 2: 3
Question 3: 3
Question 4: 1
Question 5: 2
Total Points: 10

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: 3
Question 10: 3
Question 11: 3
Total Points: 9

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 2
Question 13: 3
Question 14: 2
Question 15: 3
Question 16: 2
Question 17: 3
Question 18: 1
Question 19: 1
Total Points: 17

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-3

Riparian Width Determination

Date: 6/26/98 Investigators: CM/JG

Dominant tree species: Cottonwood

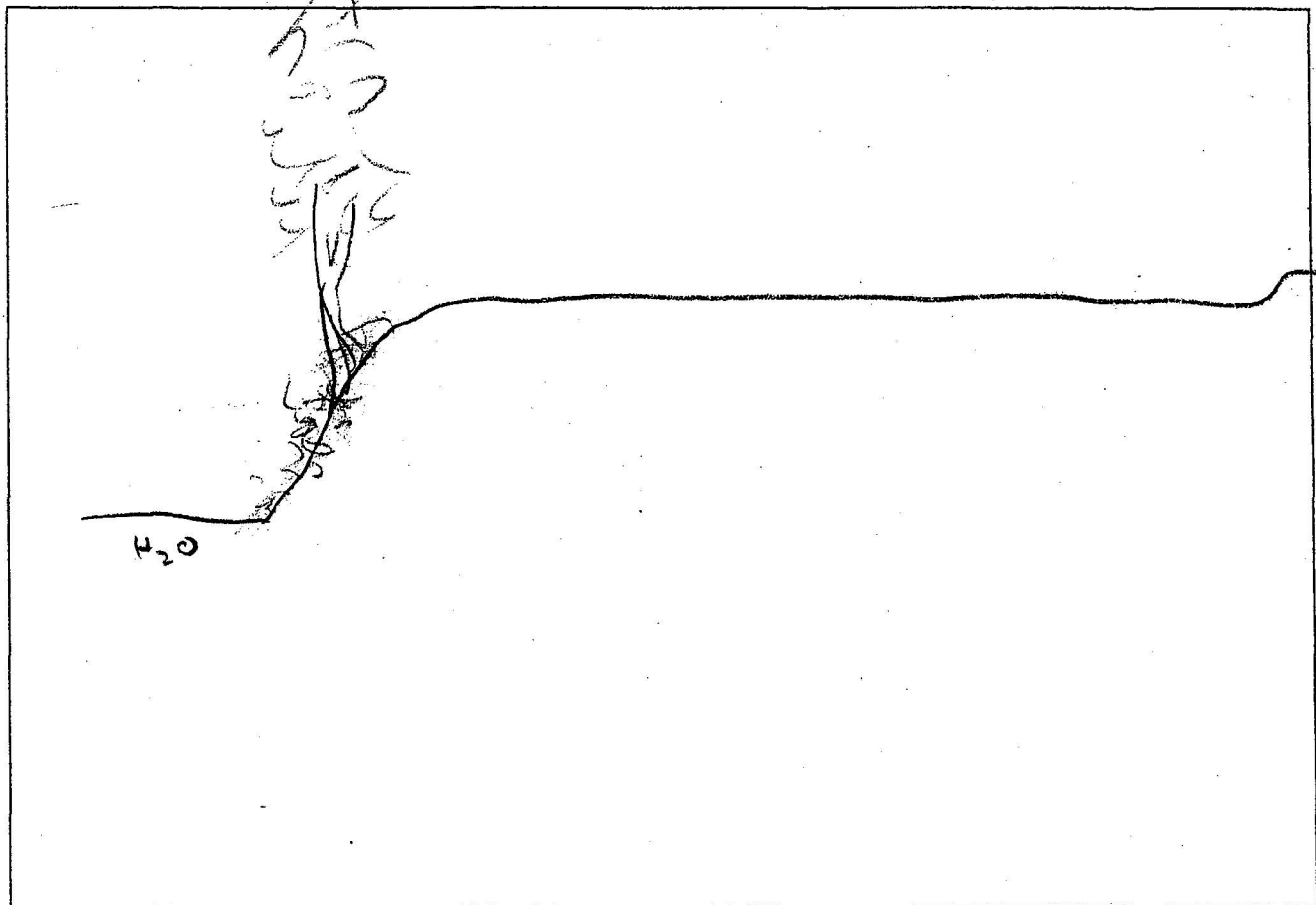
Potential tree height (PTH)/Width of Riparian Area: 120/40

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Bordered by single family residences. Snags near institution.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-3

Riparian Characterization Form

Part 1

General Information

Date: 6/26/98

On-site Office

Reach Length: 2,500

Investigators: CM/JG

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 50

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Sa

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

POPULUS BALSAMIFERA

FRAXINUS LATIFOLIA

QUERCUS GARRYANA

ACER MACROPHYLLUM

THUJA PLICATA

PSEUDOTSUGA MENZIESII

MALUS SP.

ALNUS RUBRA

CORNUS STOLONIFERA

Herbaceous Vegetation

RUBUS DISCOLOR

PHALARIS ARUNDINACEA

SCIRPUS MICROCARPUS

GLYCERIA ELATA

CORNUS STOLONIFERA

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-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: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-3

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 1
Question 2: 3
Question 3: 3
Question 4: 1
Question 5: 2
Total Points: 10

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: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 1
Question 16: 2
Question 17: 3
Question 18: 1
Question 19: 1
Total Points: 16

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-4

Riparian Width Determination

Date: 6/26/98 Investigators: JG/CM

Dominant tree species: Acer macrophyllum

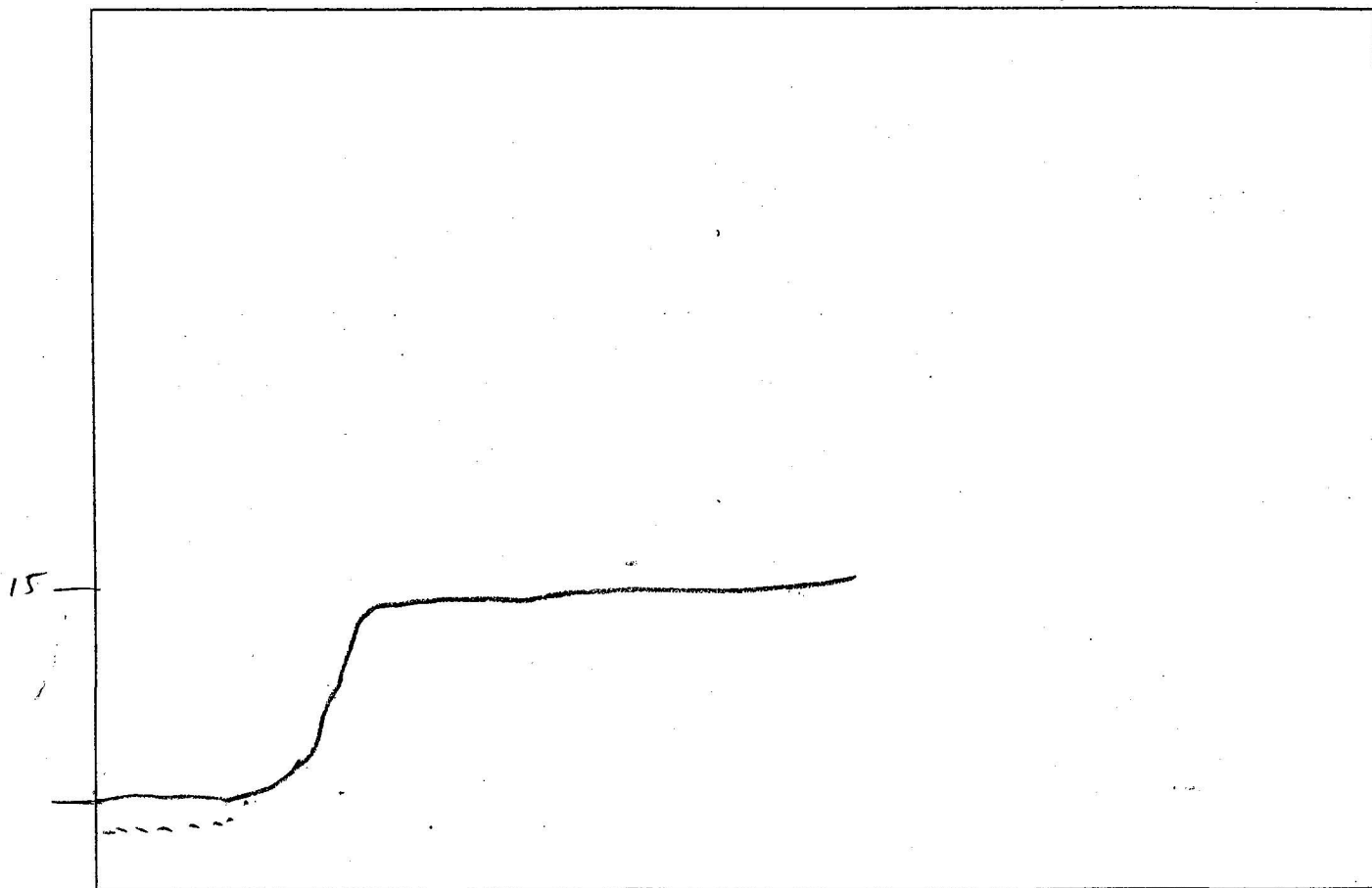
Potential tree height (PTH)/Width of Riparian Area: 90/60

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Data from E. end of park and central park.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-4

Riparian Characterization Form

Part 1

General Information

Date: 6/26/98

On-site Office

Reach Length: 3,600

Investigators: JG/CM

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 60

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Sa

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

PSEUDOTSUGA MENZIESII

QUERCUS GARRYANA

FRAXINUS LATIFOLIA

ACER MACROPHYLLUM

ALNUS RUBRA

RUBUS DISCOLOR

HEDERA HELIX

HOLODISCUS DISCOLOR

Herbaceous Vegetation

EPILOBIUM WATSONII

PHALARIS ARUNDINACEA

LACTUCA SERRIOLA

CAREX SP.

SYMPHORICARPOS ALBUS

POLYSTICHUM MUNITUM

SONCHUS ASPER

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-4

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: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-4

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 2
Question 2: 3
Question 3: 3
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: 2
Total Points: 6

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 1
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 2
Total Points: 18

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-5

Riparian Width Determination

Date: 7/9/98 Investigators: DC/DG

Dominant tree species: Acer macrophyllum/ Quercus garryana

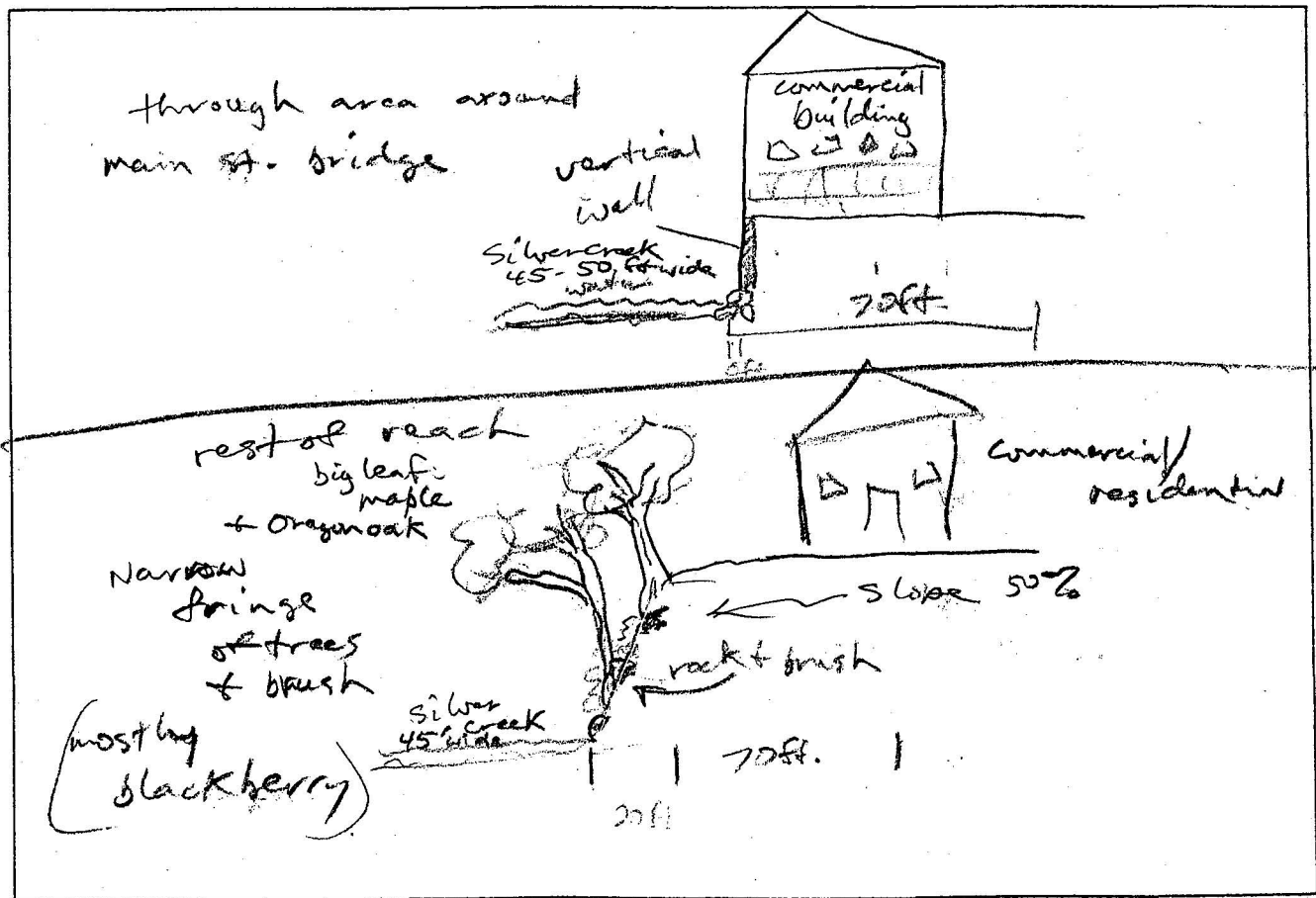
Potential tree height (PTH)/Width of Riparian Area: 90/20

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Reach is from bridge in city park to second bridge down stream at railroad bridge.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-5

Riparian Characterization Form

Part 1

General Information

Date: 7/9/98

On-site Office

Reach Length: 3,000

Investigators: DC/DG

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 50

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: AbA

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

ACER MACROPHYLLUM
FRAXINUS LATIFOLIA
QUERCUS GARRYANA
POPULUS BALSAMIFERA
RUBUS DISCOLOR
ALNUS RUBRA
CONVOLVULUS SEPIUM

Herbaceous Vegetation

PHALARIS ARUNDINACEA
FESTUCA ARUNDINACEA
SPIRAEA DOUGLASII
SOLANUM DULCAMARA
CONVOLVULUS SP.

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-5

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: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-5

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 1
Question 2: 3
Question 3: 3
Question 4: 1
Question 5: 2
Total Points: 10

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: 3
Total Points: 7

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 2
Question 13: 3
Question 14: 2
Question 15: 1
Question 16: 2
Question 17: 3
Question 18: 1
Question 19: 2
Total Points: 16

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-6

Riparian Width Determination

Date: 7/9/98 Investigators: CM/DG

Dominant tree species: Acer macrophyllum

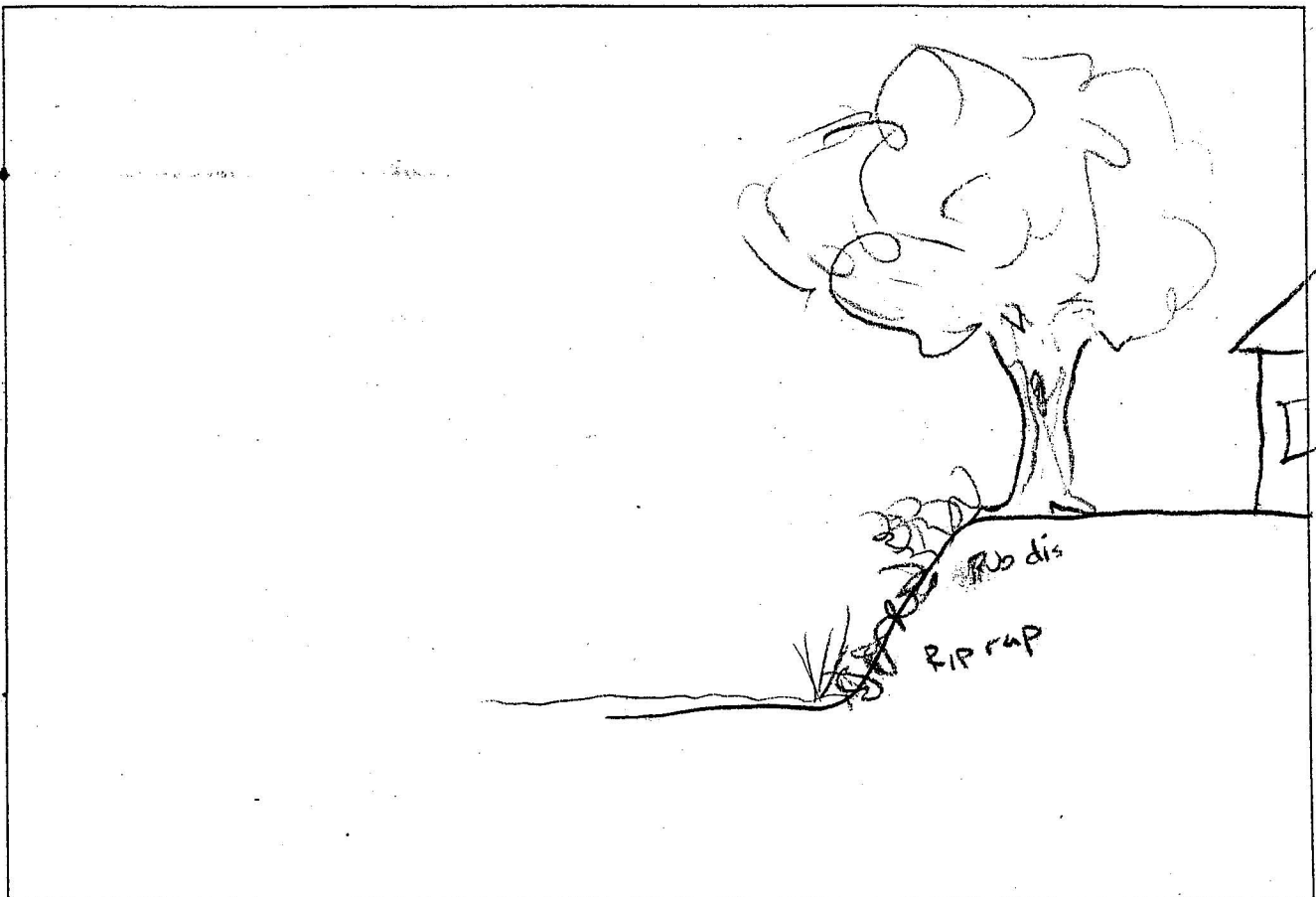
Potential tree height (PTH)/Width of Riparian Area: 90/20

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Urban setting with yards up to lip of bank. Many ornamental trees.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-6

Riparian Characterization Form

Part 1

General Information

Date: 7/9/98

On-site Office

Reach Length: 1,575

Investigators: CM/DG

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 50

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: AbA

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

ACER MACROPHYLLUM
POPULUS BALSAMIFERA
RUBUS DISCOLOR
HOLODISCUS DISCOLOR
ALNUS RUBRA
FRAXINUS LATIFOLIA
PSEUDOTSUGA MENZIESII

Herbaceous Vegetation

BERBERIS NERVOSA
CAREX SPECTABILIS
LAPSANA COMMUNIS
PHALARIS ARUNDINACEA
SOLANUM DULCAMARA
CONVOLVULUS SEPIUM

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-6

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: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-6

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 1
Question 2: 3
Question 3: 3
Question 4: 1
Question 5: 2
Total Points: 10

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: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 2
Question 13: 3
Question 14: 2
Question 15: 1
Question 16: 2
Question 17: 3
Question 18: 1
Question 19: 1
Total Points: 15

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-7

Riparian Width Determination

Date: 7/9/98 Investigators: CM/DG

Dominant tree species: Populus balsamifera

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: Noted 18" lamprey (dead). Bottom varies between cobbles & cemented gravels, across bolder. Noted dead beaver.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-7

Riparian Characterization Form

Part 1

General Information

Date: 7/9/98

On-site Office

Reach Length: 1,690

Investigators: CM/DG

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 45

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Nu, Te

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

POPULUS BALSAMIFERA
FRAXINUS LATIFOLIA
ALNUS RUBRA
CORALLORRHIZA STRIATA
PHYSOCARPUS CAPITATUS
SALIX SITCHENSIS
PSEUDOTSUGA MENZIESII
HOLODISCUS DISCOLOR

Herbaceous Vegetation

SOLANUM DULCAMARA
CONVOLVULUS SEPIUM
SCIRPUS MICROCARPUS
PHALARIS ARUNDINACEA
CAREX SPECTABILIS
JUNCUS TENUIS
LONICERA CONJUGIALIS
CYTISUS SCOPARIUS
EPILOBIUM WATSONII
LACTUCA SERRIOLA
POLYGONUM SACHALINENSE

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-7

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: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-7

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: 3
Total Points: 9

Function:

- High
 Medium
 Low

Thermal Regulation

Question 9: 3
Question 10: 3
Question 11: 2
Total Points: 8

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 1
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 2
Total Points: 18

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-8

Riparian Width Determination

Date: 7/9/98 Investigators: CM/DG

Dominant tree species: Quercus garryana

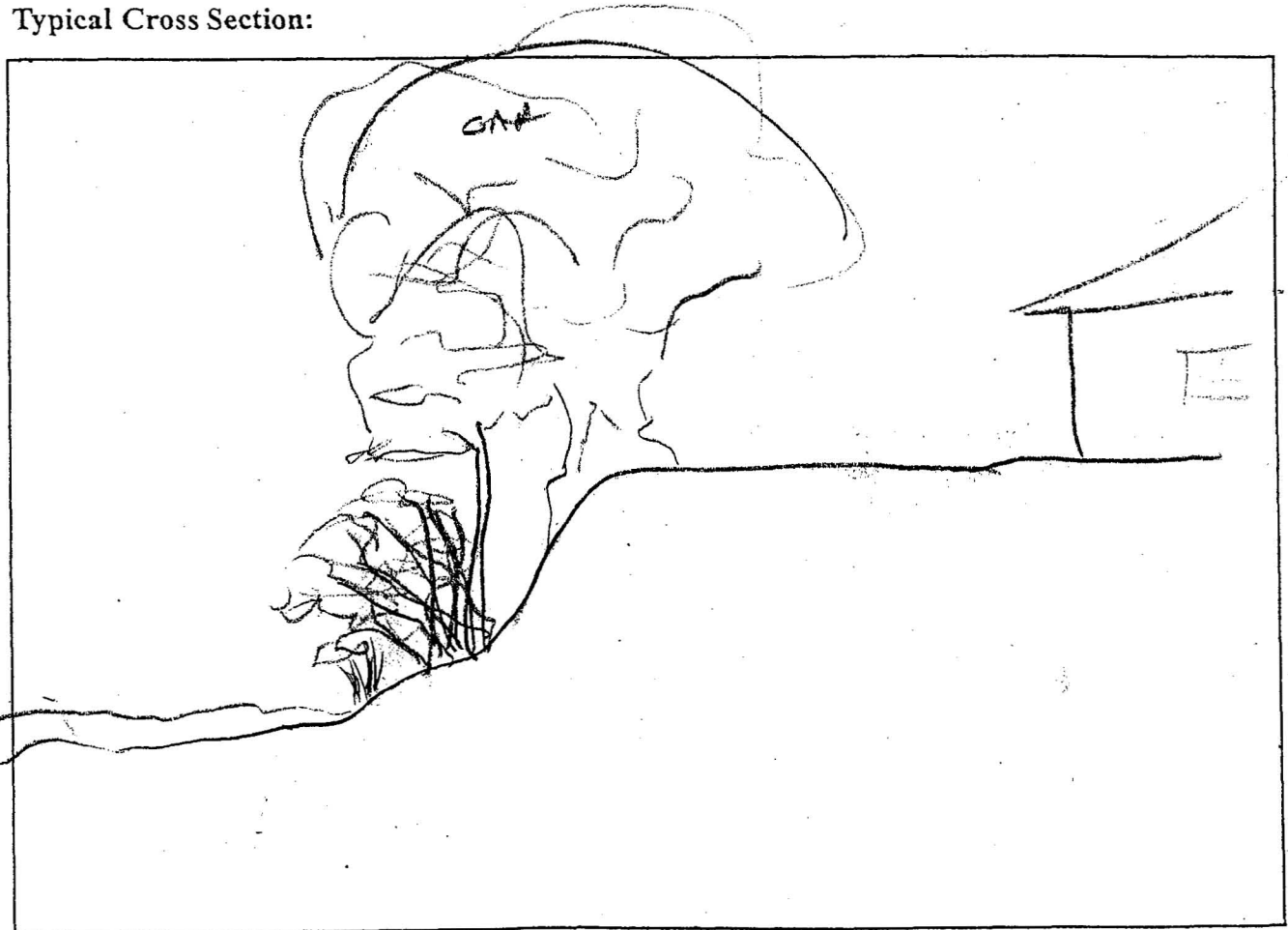
Potential tree height (PTH)/Width of Riparian Area: 60/35

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Mix of riparian shore & vegetation. Lined banks

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-8

Riparian Characterization Form

Part 1

General Information

Date: 7/9/98

On-site Office

Reach Length: 1,200

Investigators: CM/DG

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 45

Lake/Pond Width: 0

Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Te, Cm

Adjacent Land Uses?

Agriculture Residential Undeveloped

Commercial Roads Forestry

Woody Vegetation

QUERCUS GARRYANA
ACER MACROPHYLLUM
ALNUS RUBRA
RUBUS DISCOLOR
CORYLUS CORNUTA
CORALLORRHIZA STRIATA
FRAXINUS LATIFOLIA
POPULUS BALSAMIFERA
PSEUDOTSUGA MENZIESII

Herbaceous Vegetation

LACTUCA SERRIOLA
CARDAMINE SP.
PHALARIS ARUNDINACEA
SOLANUM DULCAMARA

Urban Riparian Inventory and Assessment

Project Number: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-8

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: 7965096.1

Project Name: Silverton

Riparian Code: SC-R-8

Riparian Function Assessment Answer Sheet

Water Quality

Question 1: 2
Question 2: 3
Question 3: 3
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: 3
Question 10: 3
Question 11: 3
Total Points: 9

Function:

- High
 Medium
 Low

Wildlife Habitat

Question 12: 3
Question 13: 3
Question 14: 2
Question 15: 1
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 2
Total Points: 18

Function:

- High
 Medium
 Low

Urban Riparian Inventory and Assessment

Project Number: 7965096.1
Project Name: City of Silverton LWI
Riparian Code: SC-R-9

Riparian Width Determination

Date: 7/9/98 Investigators: CM/PG

Dominant tree species: Populus balsamifera

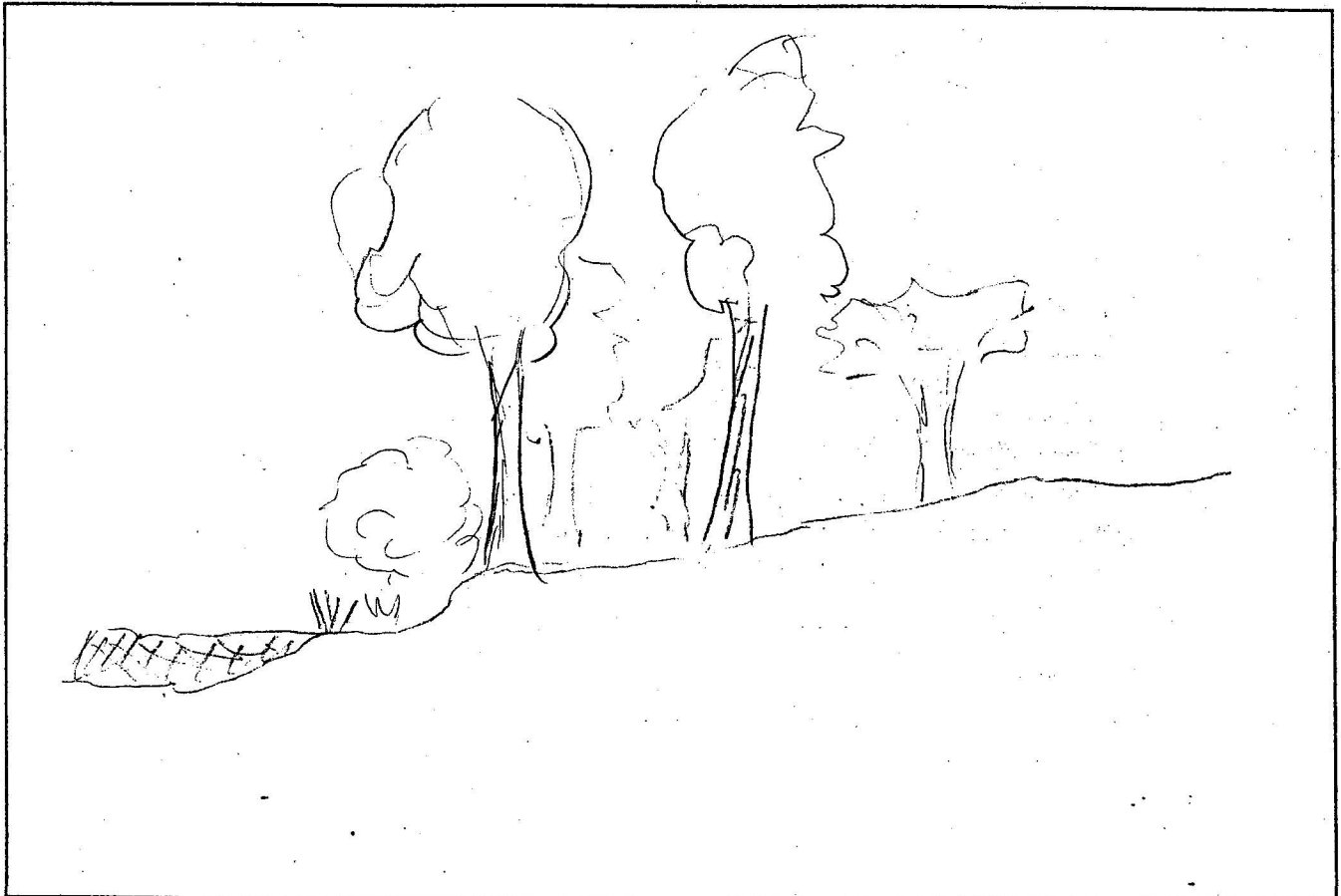
Potential tree height (PTH)/Width of Riparian Area: 120/120

(Width measured horizontally from edge of water resource)

PTH determined by: On-site vegetation Reference site Code:

Comments: Quiet, deep stretch. Riparian area undeveloped and dominated by mature cottonwood trees.

Typical Cross Section:



Urban Riparian Inventory and Assessment

Project Number: 7965096.1
Project Name: City of Silverton LWI
Riparian Code: SC-R-9

Riparian Characterization Form

Part 1

General Information

Date: 7/9/98

On-site Office

Reach Length: 1,000

Investigators: CM/PG

Hydrologic Basin: Silver Creek

Water Resource Information

Water Resource: Stream/River Width: 45
Lake/Pond Width: 0
Wetland Width: 0

LWI Wetland Code: Silver Creek

Water present year-round: Yes

Are salmonids present in the adjacent water resource: Yes

Is the water resource listed for temperature on DEQ's 303(d) list: Yes

Within FEMA-mapped 100-year floodplain: Yes

Mapped soil series: Cm

Adjacent Land Uses?

Agriculture Residential Undeveloped
Commercial Roads Forestry

Woody Vegetation

POPULUS BALSAMIFERA
QUERCUS GARRYANA
ACER MACROPHYLLUM
FRAXINUS LATIFOLIA
SALIX SP.
CORNUS SERICEA
PHYSOCARPUS CAPITATUS

Herbaceous Vegetation

PHALARIS ARUNDINACEA
HYPERICUM PERFORATUM
SOLANUM DULCAMARA
JUNCUS TENUIS

Urban Riparian Inventory and Assessment

Project Number: 7965096.1
Project Name: City of Silverton LWI
Riparian Code: SC-R-9

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: 7965096.1
Project Name: City of Silverton LWI
Riparian Code: SC-R-9

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: 3
Total Points: 9

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: 1
Question 16: 3
Question 17: 3
Question 18: 1
Question 19: 3
Total Points: 19

Function:
 High
 Medium
 Low



Appendix D

DSL OFWAM Manual

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.



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 F

Water Quality and Fish Presence Data

Water Quality Limited Streams and Fish Presence Data for Silverton LWI

Stream	Reach	Water Quality Limited (1)	Fish Presence*(2)
Silver Creek	Mouth to above Silverton	Yes	A
Brush Creek	N/A	No	RB
Evans Creek	N/A	No	CT
Abiqua Creek	N/A	No	A, CT

*A = anadromous; CT = cutthroat; RB = rainbow

(1) Oregon Department of Environmental Quality, 1998.

(2) Baker and Forsberg, 1994.