Inventory Summary Report

WETLAND INVENTORY, CLASSIFICATION, EVALUATION AND MAPPING (WIM)

Okanagan Basin WATER BOARD

Ducks Unlimited Canada
CANADA'S CONSERVATION COMPANY

City of Kelowna

ECOSCAPE
Environmental Consultants Ltd.

Prepared For:
City of Kelowna, Environment Division

Prepared By:
Ecoscape Environmental Consultants Ltd.

May, 2009
File No.: 07-151

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EXECUTIVE SUMMARY

Introduction

A wetland is defined as land that is saturated long enough to promote wetland or aquatic processes indicated by poorly drained soils, hydrophytic (water-loving plants) vegetation (>50 composition) and various kinds of biological activity, which are adapted to a wet environment.

It is estimated that about 84% percent of low elevation wetlands (including marsh, shrub swamp, saline meadow, and shallow open water) have been lost in the Okanagan and Similkameen Valleys (Lea 2008). Percentage losses of certain ecosystem types have been estimated to be higher in the Kelowna area than for the whole Okanagan valley (Lea, 2008). Many of the remaining water-dependent communities are highly fragmented and in poor functioning condition.

Studies have shown that about 80 percent of wildlife are either directly-dependent upon wetland and riparian ecosystems, or use them more frequently than most other habitat types. Yet despite community, local and provincial government recognition of the critical importance of wetland and riparian ecosystems, these ecologically significant areas continue to be lost to land use practices.

Within Kelowna, it was acknowledged that many watercourses and critical wetland and riparian communities were not previously identified /mapped and in some cases did not fall within Natural Environment Development Permit Areas. Furthermore, some watercourse information that existed was spatially inaccurate (not in the right location).

Objective

The objective of this project was to provide a more definitive information base for future planning, particularly where urban development could potentially impact natural wetland areas, and to provide policies that will enhance protection of significant wetland features. By combining resource information from a variety of sources, the goal of this project was to provide a comprehensive GIS baseline inventory of wetland communities for improving integrated resource management and planning within the City of Kelowna.

Technical Approach

The Wetland Inventory and Mapping (WIM) project identifies and provides scientific information on remaining wetlands and closely associated sensitive ecosystems and important wildlife habitats with the Kelowna city limits. It addresses a variety of values (biodiversity, fish, wildlife, and hydrology) and creates a baseline for several different variables such as wetland size and extents, wetland quality, and level of biodiversity, expressed in the number of wetland types, distinct vegetation communities within, and the variety of vegetation forms present. The detailed GIS-based information is a comprehensive baseline tool intended for use in a variety of land-use planning processes and decisions.

Data collection and processing methods adapted current standards implemented through Sensitive Habitat Inventory and Mapping (SHIM) (Mason and Knight, 2001). The SHIM data dictionary was revamped to include more comprehensive wetland community classification elements (e.g., wetland site associations, biodiversity indices, soils/substrates).

Classification methods adapted both the Canadian Wetland Classification System and the BC Wetland Classification System. Additionally, inventory and evaluation components adapted protocols established by the National Wetlands Working Group 1994). Wetland and floodplain communities were described using the Canadian Wetland Classification System (Warner and Rubec, 1997) and the Guide to Identification of Wetlands of British Columbia (MacKenzie and Moran, 2004). Together these community variables are directly transferable to provincial TEM (Terrestrial Ecosystem Mapping) systems and standard best practices for mapping and identifying environmentally sensitive and important habitat areas.

Biodiversity of wetlands were considered based on taxonomic and ecosystem variety. Wetlands containing more habitats will contain more plant varieties and will in turn attract more fauna than wetlands containing more uniform vegetation communities. The three (3) main factors for assessing biodiversity were:

1. Number of vegetation communities within a wetland unit
2. Total number of vegetation forms (physical structure or shape of a plant**)** within a wetland unit.
3. Wetland Open Water Type (of the wetland unit) as per the National Wetlands Working Group (1994).

Wetland and surrounding habitat condition was recorded based on riparian class (eg. natural, modified, urban), wetland functional rating (Proper Functioning Condition, Functional At Risk, and Non Functioning Condition), and overall level of impact (0=Nil – 6=Extreme).

Summary of Results

The total number of wetlands included in the inventory database is 278. Remaining wetlands and shallow open water environments cover about 1% (~260Ha) of the Kelowna land base. Natural condition sites have a combined wetland area totaling about 24% of the total wetland aerial coverage. Modified and constructed sites account for about 74% and 2% of the total wetland aerial coverage respectively.

Geographically isolated basins are the predominant wetland sites and account for nearly 44% of total wetland area coverage within the City. These sites occur in depressions and other topographic low points and are often associated with small waterbodies (e.g. ponds and kettle lakes) where the watertable is near or at the surface. The majority of these geographically isolated and link basins occur throughout the Glenmore and Black Mountain / Ellison area in upland bedrock controlled sites and in grasslands (often as saline meadows).

Riverine (fluvial) and riparian sites, being closely associated with flowing water and typically subject to flooding and deposition, account for nearly 22% of the total wetland area coverage. Palustrine slope and spring wetlands (sites with near-surface groundwater springs or seepages) also account for nearly 22% of the total wetland area coverage. These sites were most often encountered on the lower slopes above the Mission Creek floodplain where a single point source or diffuse groundwater discharge results in persistently saturated soil, often resulting in drainage channels and pools.

Within Kelowna, Type 1 wetlands, that have less than 5% open water, accounted for over 40% of total wetland area coverage. These sites were typically tall rush marshes and were often monoculture reed canary grass marshes or very moist meadows. Type 6 and Type 8 wetlands (with open water accounting for over 75% of the wetland area) together accounted for nearly 37% of total wetland area coverage in the City. These sites were most prevalent in the palustrine group of basins, hollows, ponds, and potholes throughout the Glenmore, Ellison, and Black Mountain areas. These sites were often assessed as very dynamic and alkaline because of strong vertical watertable fluctuations through mineral soils.

Over 55% of remaining wetlands are At Risk (Functionally) from land development, fragmentation (from upland habitats and other functionally connected wetlands), contamination, alteration of hydrology, and invasive plants and animals etc.

Discussion

Recognizing the imperiled state of wetland ecosystems in Kelowna, those that remain should have high conservation priority irrespective of current ecologic functional condition. This rationale is premised simply on the fact that the hydrologic conditions support wetland development and that these disturbed/modified sites have a moderate to high capability of regeneration. In short, wetlands occur in areas where the nature and topography of the site are conducive to supporting this unique habitat type.

Transitional wetlands and very moist riparian sites were often included in the wetland area boundaries since, from an ecological perspective it makes sense to include these sites with wetland sites and treat them as a larger ecological unit or wetland mosaics (Banner and MacKenzie, 2000). It is important to appreciate the dynamic nature of wetlands and how they may change with fluctuations in climatic conditions. Many of these communities have poorly defined boundaries and, coupled with anthropogenic disturbance and hydrologic alteration, are transitional between wetland and upland associations. While it is recognized that during the 2007-2008 inventory and assessment that some of these basins were currently transitional and considered “non wetlands”, the dynamic condition of many of these sites may again result in a shift back to a ‘wetland’ in conjunction with increased periods of precipitation. Dry years have a marked impact on the size, boundaries, and plant communities of wetlands. Successive dry years, which have been more typical over the past decade or so, may lead to some wetlands disappearing, being replaced by moist to very moist sites such as saline meadows, only to reappear following successive wet periods. Banner and Mackenzie (2000) note that this dynamic cycle is favourable to many marsh species. In addition, these small open water and vernal communities may provide critical reproductive habitats for species of conservation concern such as the Great Basin Spadefoot and tiger salamander.

The high net primary productivity of many wetland communities creates large amounts of biomass on an annual cycle. In urban wetlands, the process of natural succession may result in the eventual in-filling of wetlands as organic material and sediments accumulate. Under some circumstances, wetland community enrichment may benefit biodiversity values for a particular wetland. Wetland community enrichment could involve the creation of additional community types such as open water pockets that would dramatically increase a wetlands site potential. However, such works must be carefully considered and assessed on a case by case basis.

Additional considerations that warrant stronger Policy direction include:

- Carefully consider the hydrodynamic position of all wetlands, particularly dynamic/transitional sites, in land use planning because of their potential importance for species at risk and other biodiversity values;

- Maintain predevelopment drainage patterns to ensure a continued and stable hydrological regime, without compromising or impacting the wetland communities from the potentially harmful effects of stormwater run-off (i.e., prevent direct discharge of untreated storm water to a natural wetland);

- Emphasize the functional connections between wetlands, especially those that occur within 750 m of another wetland or that are considered linked basins, to maintain the biodiversity and complex wetland characteristics that occur in these diverse sites;

- Establish and preserve buffers around wetlands;

- Prioritize the retention or restoration of wetlands, rather than their creation;

- Clearly articulate performance standards in policy and bylaw documents that reflect the structural and functional objectives of any project;

- Require long term monitoring and management responsibilities for created or restored wetlands;

- Where mitigation is used, its focus will be on maintaining the functionality of the wetland;

- Develop compensation ratios that reflect the high failure rate of certain types of wetland compensation projects, and;

- Develop a wetland adaptive management strategy for wetland community enrichment to mitigate the loss of wetlands in urban/suburban areas from biomass accumulation absent other natural processes.

INFORMATION DISCLAIMER

The results contained in this report are based upon data collected during a brief one year inventory. Biological systems respond differently both in space and time. For this reason, the assumptions contained within the text are based upon field results, previously published material on the subject, and airphoto interpretation. The material in this report attempts to account for some of the variability between years and in space by using safe assumptions and a conservative approach because the information is primarily intended as a flagging tool. Due to the inherent problems of brief inventories (e.g., property access, GPS/GIS accuracies, air-photo interpretation concerns, etc.), professionals should complete their own detailed assessments of a wetland to understand, evaluate, classify, and reach their own conclusions regarding it. Data in this assessment was not analyzed statistically and no inferences about statistical significance are made if the word significant is used. Use of or reliance upon biological conclusions made in this report is the responsibility of the party using the information. Neither Ecoscape Environmental Consultants Ltd., nor the authors of this report, are liable for accidental mistakes, omissions, or errors made in preparation of this report because best attempts were made to verify the accuracy and completeness of data collected and presented.

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1.0 INTRODUCTION

It is estimated that about 84% percent of low elevation wetlands (including marsh, shrub swamp, saline meadow, and shallow open water) have been lost in the Okanagan and Similkameen Valleys (Lea, 2008). Many of the remaining water-dependent communities are highly fragmented and in poor functioning condition. Studies have shown that about 80 percent of wildlife are either directly-dependent upon wetland and riparian ecosystems, or use them more frequently than most other habitat types. Despite community, local and provincial government recognition of the critical importance of wetland and riparian ecosystems, these ecologically significant areas continue to be lost to land use practices. For instance, a review of historical wetland habitats along Okanagan Lake within the City of Kelowna found that this shoreline type has decreased from approximately 20% prior to 1950 to only 2% in 2004 (Schleppe and Arsenault, 2006). Lea (2008) also estimated that the percentage losses of certain ecosystem types have been estimated to be higher in the Kelowna area than for the whole Okanagan valley (Lea, 2008).

Recognizing the imperiled state of these ecosystems, those that remain should have high conservation priority irrespective of current ecologic functional condition. This rationale is premised simply on the fact that the hydrologic conditions support wetland development and that these disturbed/modified sites have a moderate to high capability of regeneration. In short, wetlands occur in areas where the nature and topography of the site are conducive to supporting this unique habitat type.

2.0 BACKGROUND

Urban Systems (1998)[1] identified 81 wetlands and 57 potential unconfirmed wetland features within City of Kelowna boundaries in the Wetland Habitat Management Strategy. The purpose of this document was to provide a more definitive information base for future planning, particularly where urban development could potentially impact natural wetland areas. Other objectives were to provide policies intended to enhance protection of significant wetland features. Although this report identified several wetland communities, not all wetland, riparian, and transitional communities were inventoried and mapped. Furthermore, the spatial accuracy, size, and boundaries of some identified wetlands appear inconsistent with the actual natural condition or location. Since that time it has been acknowledged that these inconsistencies and knowledge gaps are compromising the ability of City Planning and Environment staff to make informed decisions under the framework of the current Wetland Management Strategy. An update of this wetland inventory that incorporates newer technologies, such as GIS mapping, would provide more accurate and reliable data for City staff for planning and flagging purposes.

A complete wetland inventory and habitat analysis will promote better awareness of the natural values intrinsic of wetland ecosystems. Furthermore, increased spatial accuracy of wetland locations, boundaries, and biophysical attributes (delineated in the field), will

[1] Urban Systems. 1998. Wetland Habitat Management Strategy. Prepared on Behalf of the City of Kelowna. 74pp.

support more informed decision making by City of Kelowna staff and Council, thus helping to realize the principles and objectives of the Wetland Management Strategy.

3.0 OBJECTIVE

The objective of Wetland Inventory Mapping (WIM) was to:

- Identify, inventory, and map all wetlands and closely associated communities and habitat features within the Kelowna city limit using an adapted data dictionary;
- Provide the basis for accurately mapped baseline data that can be integrated into City of Kelowna mapping and planning initiatives; and,
- Augment and potentially enhance local land use planning maps and/or specific site or detailed planning surveys.

The primary functions of WIM were to:

- Identify wetland resources not previously catalogued within the Kelowna city limit;
- Integrate property boundaries, land parcels, and road networks with locations of wetlands to facilitate the Kelowna Official Community Plan (OCP) and Development Permit application review processes;
- Work within an interactive Geographical Information System (GIS) to provide useful map products for analysis and effective communication; and,
- Establish partnerships with provincial and municipal governments, stakeholders, and the public to protect and manage wetlands and associated functions (i.e. riparian communities and linear corridors etc.).

With the delivery of this information it is the intent that the WIM will provide a more complete baseline to:

- Monitor changes in habitat resulting from known disturbances, such as development, agriculture, recreation, etc.;
- Help guide management decisions and priorities with respect to wetland habitat restoration and enhancement projects;
- Identify sensitive habitats for fish and wildlife;
- Provide baseline mapping data for future monitoring activities;
- Map and identify the spatial extent of wetland and floodplain associations; and,

- Assess respective wetland status under the Riparian Areas Regulation (RAR).

By combining resource information from a variety of sources, the goal of this project was to provide a more robust baseline inventory of wetland communities for improving integrated resource management and planning within the City of Kelowna.

4.0 WORK PLAN

4.1 Work Scope

The primary scope of work was to first carry out field inventories of the 57 identified priority wetland sites (not previously inventoried) and, secondly, revisit the 81 sites that had been previously assessed (Urban Systems, 1998) to fill in data gaps and where possible, update spatial information for these sites. It should be noted that as field inventories proceeded, additional unmapped wetland sites were identified. As previous recorded information was unavailable for these sites, they too were considered as priority wetlands. Hence the initial 57 priority sites that had been included in the scope of work increased accordingly. As a result, some second priority sites were not revisited during the 2007 field season in the interest of focusing field efforts on identifying new sites. Having done this however, the same intensity of field work was carried out as per the initial scope – only more priority sites were inventoried and fewer second priority sites were revisited. More detailed aspects of the work included the following elements:

- Identify and obtain existing information and sources about wetlands within the City boundaries and identify local knowledge through discussion and documentation from regional and local professionals.

- Complete WIM surveys within a generally modified urban and rural context adapting both national and provincially recognized wetland inventory, classification, and evaluation methods;

- Process field data and meet GPS data collection accuracies adapting methods of the Sensitive Habitat Inventory and Mapping (SHIM) standards; and,

- Provide WIM data (in a modified data base), conforming to SHIM Data Deliverable Standards (for accuracy and GIS/GPS standards), to the City of Kelowna and subsequently to the Community Mapping Network (CMN) for publication in the SHIM Atlas.

4.2 Background Review and Data Compilation

Commencement of the work program involved the collection and compilation of detailed watercourse and terrestrial information collected during Sensitive Habitat Inventory and Mapping (Ecoscape 2005 and 2007), Foreshore Inventory and Mapping (RDCO, 2006), the

Sensitive Ecosystem Inventory (SEI), and the Wetland Habitat Management Strategy (Urban Systems, 1998). In addition, Ecoscape consulted other resource professionals and technical reports to identify the approximate spatial location of wetlands that occur throughout Kelowna.

4.3 Public Consultation/Review

In conjunction with City Environment Division staff, a public open house was coordinated by City of Kelowna, Ducks Unlimited, and Ecoscape to identify additional potential wetland locations (not previously known). Participants of the open house completed a simple descriptive form identifying the location of a wetland(s), inherent natural and social values, and subsequently placed a location marker on large wall maps for reference. The location and feature information of respective wetlands identified at the open house were incorporated into the field survey plan for ground truthing.

4.4 Air Photo Interpretation

Prior to and throughout the field inventory phase, high resolution digital imagery (ortho photos) and 1-m contour information were closely reviewed to spatially locate potential unknown wetlands. Additional sites were highlighted on the map for ground truthing.

4.5 Wetland Inventory

The primary goal of the 2007 wetland inventory was to focus on priority wetlands – those not previously identified on local and/or provincial maps and presumed to be more imperiled by existing or future land development.

The scope of field inventories involved ground truthing of 138 potential and previously surveyed wetland sites. A total of 57 *priority sites* had been identified for ground truthing and represented '*potential*' wetland locations that had been previously identified (Urban Systems (1998). These potential wetland sites had previously not been accurately inventoried, delineated or, classified. Second priority sites totaled 81 wetlands and represented those that had been previously identified by Urban Systems (1998). The goal of this project was to revisit these sites and to provide an update on the condition of these sites and furthermore to consolidate all wetland community information into a common GIS data base. As indicated above (Section 3.2) additional wetland sites, which had not been previously identified, were also recognized as priority sites.

4.6 Technical Approach

The general technical approach was based upon mapping and data collection standards developed for the Sensitive Habitat Inventory and Mapping http://www.shim.bc.ca/methods/SHIM_Methods.html (Mason and Knight, 2001), which involves the use of a digital data dictionary operating on a GPS platform. The SHIM standards for mapping include accuracy targets, GPS settings, and a variety of other factors. Aside from technical collection and GPS/GIS mapping requirements/standards, no

other SHIM methodologies were employed (i.e., the data collected was not based on the SHIM data dictionary).

Within an urban and rural context, disturbance regimes often result in a departure of some wetland sites from those described by standard classification systems (i.e., non-conforming to a particular wetland class). Typically, classification systems are developed from extensive field inventories of representative *natural sites* and subsequent ordination of sites into a comprehensible arrangement of separate elements, forming the classification system. For this reason, strict adherence to the provincial classification system and standards in an urban setting can pose significant challenges and could result in overlooking or negating the importance of smaller, fragmented communities that still remain. Therefore, a specific data dictionary was developed for this project that adapted the classification and inventory methods of both the Canadian Wetland Classification System (Warner and Rubec, 1997) and the BC Wetland Classification System (Mackenzie and Moran, 2004) and, furthermore, included wetland community evaluation criteria developed by the National Wetlands Working Group (1994). The complete data dictionary can be found in Appendix A.

Detailed wetland ecosystem attributes including Wetland Class (BC Classification), Form/Sub-Form (Canadian Classification), and function were collected. Additionally, inventory and evaluation components have been adapted based upon protocols established by the National Wetlands Working Group (1994), which assess wetland communities from an ecological and biodiversity perspective.

4.6.1 Wetland Boundary Delineation

Ecoscape employed a sub-metric GPS data logger (Trimble GeoXT) to delineate wetland boundaries and input various community and habitat attributes into the Wetland Inventory data dictionary during field inventories. All wetland attributes collected are detailed below and boundary accuracies followed the standards of the SHIM.

The scope of this project did not involve field inventory of all wetlands occurring in the Kelowna city limit but focused on potential sites and those more imperiled by continued changes in land use. While not all wetland sites were field inventoried, Ecoscape endeavoured to include all wetland units and associated communities within the GIS database. Data was collected for wetlands that were not field inventoried by reviewing previous studies and inventories, through review of high resolution imagery and topographic information, and using professional judgment to best describe the wetland site. In recognition of the fact that not all wetlands units were inventoried, the wetland database also included Location and Feature Information summary data for respective wetlands to describe how the wetland boundaries were delineated (i.e., Location Information) and how the data was collected (i.e., Feature Information). Sites relying exclusively on field GPS (FDG) and Inventory (INV) for location and feature information contain the highest degree of confidence with respect to wetland area boundaries and community information. Given that different methods were employed, when reviewing the attached Photo-data plates for respective sites, it is imperative that the Location and Feature Information collection

methods be considered as not all sites were field inventoried since it was beyond the project scope.

Table 1. Key to data / information collection methods for wetlands.

Location Information		Feature Information	
Detail	Map Code	Detail	Map Code
Field GPS	FDG	Inventory	INV
Air Photo Estimate	APE	Air Photo Estimate	AP
Other	OTH	Other	OTH

4.6.1.1 Wetland Mosaics

On occasion, low and mid bench flood sites and riparian associations were included in the wetland boundary as *mosaics*. These adjacent moist to very moist sites (not considered true wetlands) often occur as a gradual transition from wetland to upland communities. In these situations the wetland boundary was often poorly defined and further obscured by a dynamic hydrologic regime (vertical fluctuations of the watertable). Recognizing this and in the interest of adequately identifying these sites (from a conservation perspective), low-flood and mid-flood bench riparian sites were often included in the wetland area boundaries. From an ecological perspective, it often makes sense to include these transitional and low-bench flood sites with wetland sites and treat them as a larger ecological unit or wetland mosaics (Banner and MacKenzie, 2000) since the ecologic function of the wetland itself is intimately tied to these adjacent sites, in terms of hydrology and wildlife habitat.

4.6.2 Classification and Evaluation

A wetland is defined as land that is saturated long enough to promote wetland or aquatic processes indicated by poorly drained soils, hydrophytic vegetation and various kinds of biological activity which are adapted to a wet environment. As indicated above, wetland and floodplain associations were described using the Canadian Wetland Classification System (Warner and Rubec, 1997) and the Guide to Identification of Wetlands of British Columbia (MacKenzie and Moran, 2004). An overview of wetland and habitat attributes that were collected is presented in Table 2 with the complete data dictionary included in Appendix A. A data dictionary / database key is provided in Appendix B, which defines the various classification and evaluation methods included in the data dictionary.

During field inventories soil/sediment cores were obtained, using a Russian Peat Borer, from the central area of the basin of each of the wetland areas where possible. Soil pits were excavated on drier sites, where coring was not possible. Soil pits were excavated to 1-m depth or to where the groundwater table occurred. The soil/sediment profile was documented identifying the soil order, soil texture, depth to water, drainage and hydric conditions (indicated by presence of mottling/gleying), organic class and depth, and scale of organic decomposition (Organic Class).

Field water chemistry measurements were recorded using a Hanna HI98129 multimeter. Parameters included pH, Conductivity (µS/s), Temperature, and Total Dissolved Solids (TDS) (mg/L).

In addition to the general hydrologic regime of a potential wetland site, wetland/aquatic vegetation species (hydrophytes) and their relative abundance were also recorded. Hydrophyte composition was another factor used to determine the status of a site as a wetland. Wetland plant indictors are defined by MacKenzie and Moran (2004) are as follows:

Obligate hydrophytes:
Plants occur almost always under natural conditions in wetlands (more than 99% of the time).

Facultative Hydrophytes – Wetland Affiliated:
Plants usually occur primarily in wetlands (67-99 % of the time) but are occasionally found in non-wetlands.

Facultative Hydrophytes – Upland Affiliated:
Plants usually occur in non-wetlands, but are occasionally found in wetlands (1-33 % of the time).

Obligate Upland:
Plants almost always occur (more than 99 percent of the time) in uplands.

In field inventories, the list of hydrophytes provided by MacKenzie and Moran (2004), was considered and simplified within the data base as the % Hydrophyte Composition (i.e., estimated total cover of Obligate and Facultative Hydrophytes). Total cover estimates were categorized into the following ranges:

1-20%
21-40%
41-70%
71-90%
>90%

Each wetland assessed in the field (i.e., Feature information = INV) was assigned a generalized Functional Rating (based on current condition) based on criteria outlined in Bridges *et al* (1994) and Prichard *et al.* (1993) (See Appendix B). This metric considers the interaction of vegetation, landform/soils, and hydrology in defining the capability and potential of an area. The assessment generally considers existing conditions, potential conditions, and the minimum conditions required for an area to function properly. The results of the metric indicate whether subject wetlands are one of three categories:

- **Proper Functioning Condition (PFC)***:* Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris are present to: (1) determine whether adequate vegetation is present to dissipate wind and wave energies, thereby reducing erosion and improving water quality; (2) filter sediment, and aid floodplain development; (3) improve floodwater retention and groundwater recharge; (4) develop root masses that stabilize shorelines and banks; (5) support diverse vegetation to provide within

water habitat diversity; overhead shade to maintain water temperatures, and understorey cover to support waterfowl and other wildlife.(6) support greater biodiversity.

- **Functional-At Risk (FAR)***:* These riparian-wetland areas are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation. For example, a wetland that is being grazed (by cattle) may have the attributes of a properly functioning system, but it may be poised to suffer severe erosion and degradation.

- **Non-functional (NFC)***:* Riparian-wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream or wetland wave energy associated with high flows and winds and thus are not reducing erosion, improving water quality, etc., as already described, are nonfunctional. The absence of certain physical attributes such as a floodplain where one should exist are indicators of nonfunctioning conditions.

Table 2. Overview of wetland and habitat attributes collected using a Trimble Geo XT GPS and Wetland Inventory Mapping Data Dictionary. The complete data dictionary can be found in Appendix A and a key to the respective data fields is provided in Appendix B.

o	Wetland Area (Based on wetland boundary – delineated with GPS/Air Photo estimate/topographic interpretation)
o	Primary Character (Natural / Modified / Disturbed / Constructed
o	Hydro geomorphic Setting
o	Wetland Category
o	Wetland Type
o	Canadian Wetland Class
o	Wetland Form (Canadian wetland class. system)
o	Wetland Sub-form (Canadian wetland class. system)
o	BC Wetland Class (Class codes from Mackenzie and Moran, 2004)
o	Surface Water Temperature
o	pH
o	Conductivity
o	Total Dissolved Solids
o	Mean wetted depth
o	Depth to water (if no surface water present i.e., presently dry basin or swamp / riparian association)
o	Substrate Texture (sand-silt-clay)
o	Organic Depth
o	Organic Class (Fibric / Mesic / Humic)
o	Depth to Mottles
o	Depth to Gley
o	Number of Wetland Units
o	Number of Vegetation Forms
o	Number of vegetation Types
o	% hydrophyte composition
o	Interspersion (wetland edge/ecotone abundance biodiversity measure)
o	Dominant Vegetation species within each form
o	Level of Impairment
o	Functional Condition
o	Potential Riparian Areas Regulation (RAR) Status (Fish presence or connected by surface water to fish bearing watercourse)

4.6.3 Biodiversity

The biodiversity of wetlands were considered based on taxonomic and ecosystem variety. Wetlands containing more habitats will contain more plant varieties and will in turn attract more fauna than wetlands containing more uniform vegetation communities (National Wetlands Working Group, 1994). Biodiversity of wetland units was considered based on three main factors:

1. Number of vegetation communities with a wetland unit;
2. Total number of vegetation forms within a wetland unit; and,
3. Wetland Open Water Type (of the wetland unit) as per the National Wetlands Working Group (1994).

4.6.4 RAR Applicability / Fish Habitat Status

Determining the potential status of respective wetlands under the Riparian Areas Regulation (RAR) is important because there are a variety of legislated requirements under the RAR. Thus, Ecoscape endeavoured to identify whether or not individual or linked wetlands are themselves frequented by fish or connected by surface water flows to fish bearing watercourses. This information can be found in the Photo-Data Plates and is included in the GIS data base for respective wetlands. This data field was not confirmed by a fisheries inventory or other methods as required by the Riparian Areas Regulation, rather, this information was based on visual observation during field inventories, background review, and desk-top interpretation of aerial and topographic imagery. The intent of including this field in the data was *to flag wetlands that have the potential to be frequented by fish or be connected by surface waters to fish bearing watercourses* so that appropriate studies could be undertaken to determine their status under the RAR and the Fisheries Act. Thus, this information does not absolve the need for more detailed field work by an environmental professional to determine whether the RAR or Federal Fisheries Act applies to a particular wetland.

4.7 Data and Mapping Limitations

Inventories such as the Sensitive Habitat Inventory and Mapping (SHIM), Sensitive Ecosystem Inventory (SEI), Kelowna Shorezone Fisheries and Wildlife Habitat Assessment, and Foreshore Inventory and Mapping (FIM) are designed primarily as descriptive flagging tools to ensure that sensitive communities are not overlooked during landuse planning exercises. As flagging tools, it is still imperative that any professional utilizing these tools provide their own, more detailed assessments to support projects they undertake. For instance, detailed legal surveys are required for any fish bearing watercourse to accurately delineate the high water level as per the requirements of the Riparian Areas Regulation. Given that the target accuracy of GPS/GIS assessments is typically 2 to 5 m, a professional should not rely exclusively upon wetland boundaries from

this study for RAR wetlands and that professional should undertake or advise their client to undertake a legal survey as required under the RAR legislation.

The user of the data must clearly recognize the challenges inherent with projects such as SHIM, FIM, SEI, etc., and the *limitations* of field inventories, particularly given that budgets are often limited, property access is often denied, or ground conditions simply prevent practical ground surveys (for example; cliffs, very dense thickets, and deep water). Ecoscape has attempted to describe and classify wetlands for this study to the best of our abilities given the budget available, access concerns, etc. Any professional should rely upon this work as a baseline description and should undertake any assessments necessary to more accurately define or classify wetlands for projects they undertake.

5.0 INVENTORY SUMMARY

Field inventories in 2007/08 identified 129 wetlands and transitional sites. Additional 'potential' wetland sites that had been identified by Urban Systems (1998) and field truthed by Ecoscape were deemed to be neither wetland nor transitional sites - or - had since been filled or lost by land development. As a result, these polygons were removed from the map files, which have subsequently been provided to the City. In addition to the 129 sites identified in the 2007/08 survey period, previous wetland information collected during SHIM mapping in 2005 and 2006, was updated using the adapted wetland classification and evaluation data dictionary. Thus, a total of 43 previously SHIM surveyed wetlands were included and updated to reflect methodology outlined in this assessment. Finally, 106 wetland communities previously identified by Urban Systems (1998) and additional sites (not previously identified), were delineated and further refined (spatially) from a combination of air photo and topographic interpretation. Feature information for these sites was derived from a combination of information collected by others and through air photo interpretation. Therefore, the total number of wetlands included in the inventory database is 278 sites.

5.1 Overview of Primary Wetland Character

Within the Kelowna city limits, wetlands cover about 1% (~254 hectares) of the total municipal land base. Nearly all wetlands remaining within Kelowna are minerogenous. Minerogenous wetlands are generally found in areas where an excess of water collects on the surface and for geomorphic, hydrologic, biotic, edaphic, climatic reasons, and often anthropogenic reasons (young, disturbed/modified sites) contain or produce little or no organic matter or peat. Of the wetlands that were sampled, gleysolic soils or peaty phases of these soils were predominate. Organic wetlands that contained more than 40cm of peat accumulation on which organic soils develop, were uncommon and found to be restricted to palustrine slope / spring sites only. No peatlands (fens or bogs) were identified within the Kelowna city limits.

Based on field inventories and review of existing information, it is estimated that nearly 75% of the combined area of wetland and transitional sites (saline meadows) within Kelowna have been modified to some degree by human development ranging from agricultural practices (crop farming and livestock grazing) to urbanization (Table 3). It is estimated that close to 20% of remaining sites are natural – not having been recently disturbed or modified.

Table 3. Summary of the primary character of Kelowna Wetlands and transitional sites.

Primary Character	Cumulative Area (m^2)	Percent of Total Wetland Area
Constructed	140613	5.53%
Ditched	7770	0.31%
Modified	1890060	74.33%
Natural	504305	19.83%

5.2 Hydrogeomorphic Setting

Geographically isolated basins are the predominant wetland sites and account for nearly 44% of total wetland area coverage within the City (Table 4). These sites occur in depressions and other topographic low points and are often associated with small waterbodies (e.g. ponds and kettle lakes) where the watertable is near or at the surface. These isolated basin sites receive water mainly from groundwater discharge and precipitation. Evaporation of the mineral rich water results in an accumulation of salts in these wetlands thereby creating more alkaline conditions, which are prevalent in may of these sites in Kelowna. The majority of these geographically isolated and link basins occur throughout the Glenmore and Black Mountain / Ellison area in upland bedrock controlled sites and in grasslands (often as saline meadows).

Riverine (fluvial) and riparian sites, being closely associated with flowing water and typically subject to flooding and deposition, account for nearly 22% of the total wetland area coverage. Palustrine slope and spring wetlands (sites with near-surface groundwater springs or seepages) also account for nearly 22% of the total wetland area coverage. These sites were most often encountered on the lower slopes above the Mission Creek floodplain where a single point source or diffuse groundwater discharge results in persistently saturated soil, often resulting in drainage channels and pools.

Table 4. Distribution and relative abundance of wetland sites based on their source of origin (hydrogeomorphic group).

Hydrogeomorphic Group	Total Wetland Area (m^2)	Percent of Total Wetland Area
Lacustrine	278487	11.95%
Other	39112	1.54%
Palustrine Discharge Basin	469015	18.45%
Palustrine Isolated Basin	381045	14.99%
Palustrine Linked Basin	263166	10.35%
Palustrine Slope/Spring	558251	21.95%
Riverine/Riparian	553672	21.77%

5.3 Biodiversity Overview

Wetlands were considered based on taxonomic and ecosystem variety. Wetlands containing more habitats will contain more plant varieties and will in turn attract more fauna than wetlands containing more uniform vegetation communities (National Wetlands Working Group, 1994).

5.3.1 Vegetation Communities and Forms

Vegetation communities provide the most important measure of biodiversity. Within Kelowna, wetlands containing just two (2) distinct vegetation communities (e,g., tall rush marsh (Wm05) and transitional grass – herb transitional communities (Gs00) were predominant and these sites accounted for over 32% of the total wetland area coverage in the City (Figure 1). Combined, lower diversity wetlands, containing three (3) or fewer vegetation communities, accounted for over 75% of the total wetland area coverage within the City. Higher diversity sites, accounting for about 25% of the total wetland area coverage, were most prevalent on the lower slopes within palustrine slope / spring wetlands and riparian / riverine (fluvial) sites.

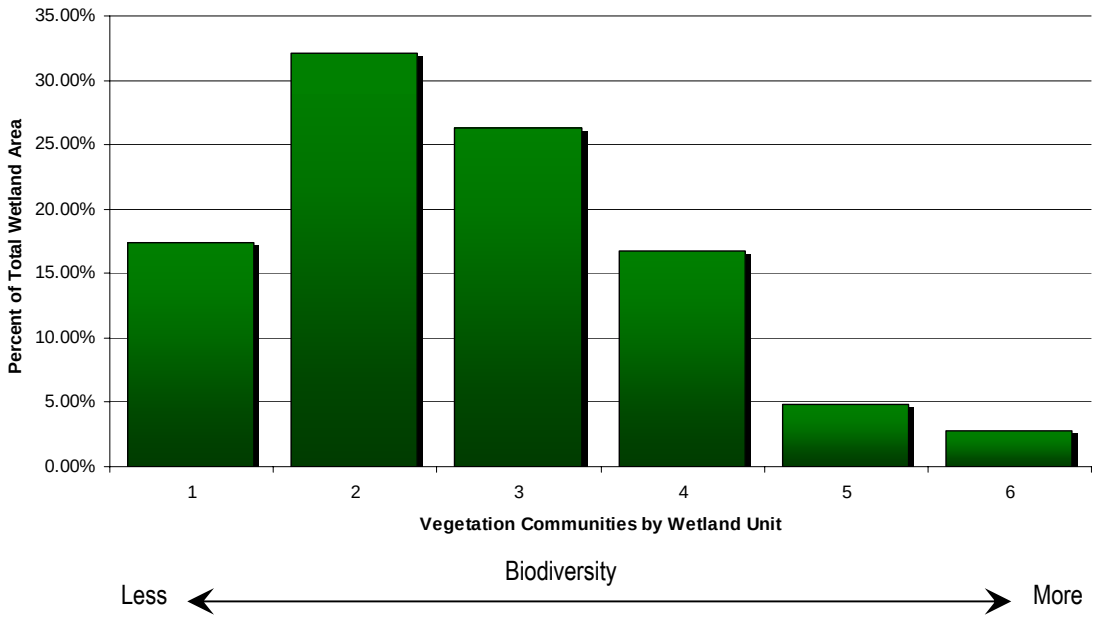


Figure 1. Summary of wetland vegetation community richness relative to total wetland area coverage.

Form is the physical structure or shape of a plant determined by features such as height, branching, pattern, and leaf shape. A greater number of forms occurring within a wetland community translate into increased habitat heterogeneity, which is the vertical and horizontal (structural) diversity of a habitat type. Sites containing four (4) or fewer prominent vegetation forms (generally with at least 25% coverage within respective vegetation communities) accounted for about 70% of the total wetland area coverage within the City (Figure 2). Similar to the vegetation communities, sites with the greatest structural complexity (greatest number of vegetation forms) tended to occur in riparian / riverine sites and plaustrine slope / spring wetlands often adjacent to and just above riverine sites.

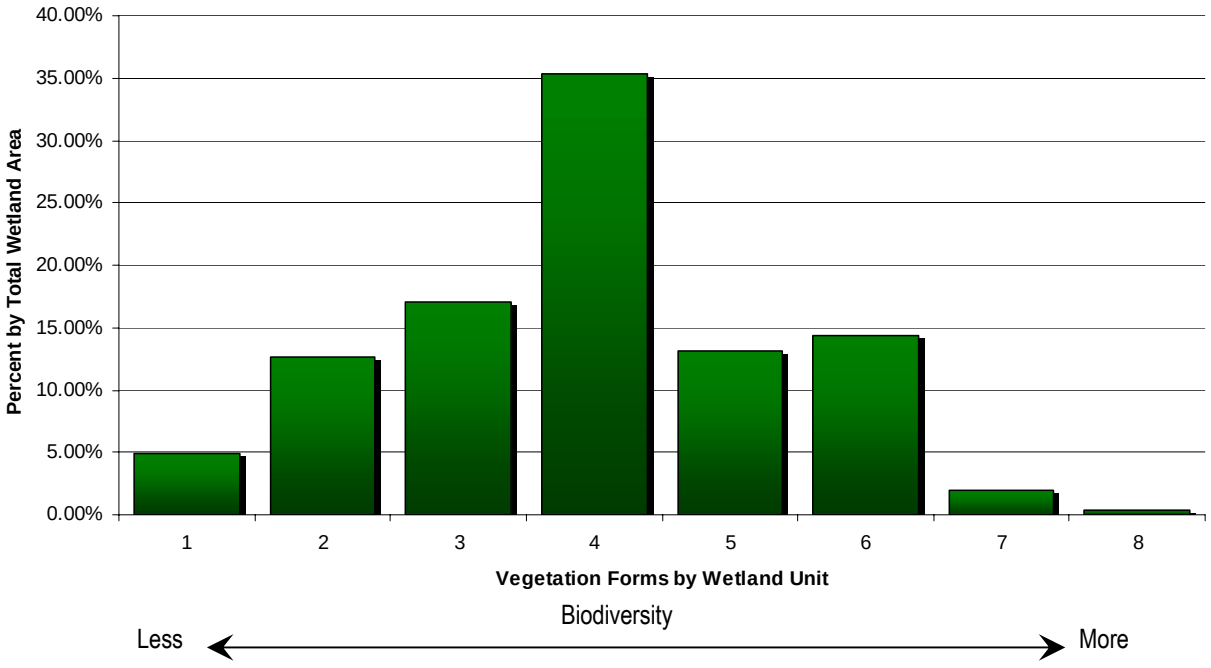


Figure 2. Summary of vegetation form richness relative to total wetland area coverage.

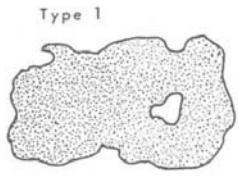
5.3.2 Open Water Types and Ecotones

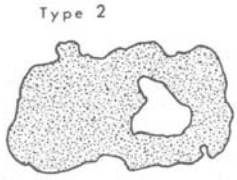
Classifying wetlands in terms of their open water type is a measure of biodiversity potential. The relative proportion and areal configuration of permanent open water adjacent to emergent vegetation is extremely important to many species of wildlife (National Wetlands Working Group, 1994). Classification of open water types within the Kelowna wetland inventory adapted wetland evaluation criteria developed by the National Wetlands Working Group (1994). Eight (8) types were defined to characterize the relative proportion and aerial configuration of open water within wetland units. Of these, Type 5 wetlands are deemed to have the greatest biodiversity potential, where open water accounts for 25% - 75% of the wetland unit, forming a complex network of embayments, resulting in high interspersion of habitats (ecotones) and structural cover.

Within Kelowna, Type 1 wetlands, that have less than 5% open water accounted for over 40% of total wetland area coverage (Figure 3). These sites were typically tall rush marshes (Wm05 – Cattail Marsh / Wm06 – Great Bulrush) and were often monoculture reed canary grass marshes (Wm00) or very moist meadows (Gs sites). Type 6 and Type 8 wetlands combined accounted for nearly 37% of total wetland area coverage in the City. These sites

were most prevalent in the palustrine group of basins, hollows, ponds, and potholes throughout the Glenmore, Ellison, and Black Mountain areas. These sites were often assessed as very dynamic and alkaline because of strong vertical watertable fluctuations through mineral soils creating significant drawdown zones. Therefore, these wetlands often only contained two to three community types, generally with a central open water community (Wa) and narrow tall rush fringe (Wm sites) along the periphery of the wetland.

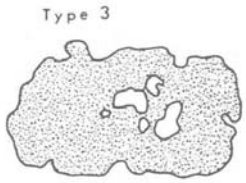
Open Water Type	1 (<5%)
Total Wetland Area (m^2)	1030491
% of Kelowna Wetland and Transitional Sites	40.53%

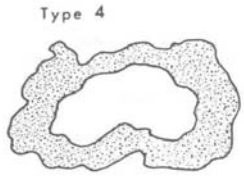




Open Water Type	2 (5-25% central)
Total Wetland Area (m^2)	8375
% of Kelowna Wetland and Transitional Sites	0.33%

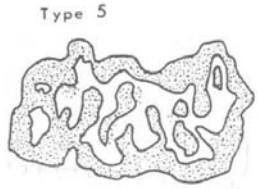
Open Water Type	3 (5-25% patch)
Total Wetland Area (m^2)	187071
% of Kelowna Wetland and Transitional Sites	7.36%

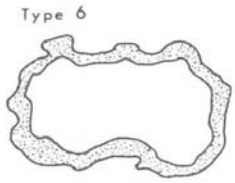




Open Water Type	4 (26-75% central)
Total Wetland Area (m^2)	105969
% of Kelowna Wetland and Transitional Sites	4.17%

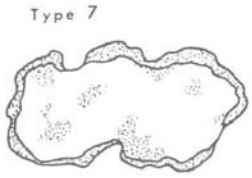
Open Water Type	**5 (26-75% embayment)**
Total Wetland Area (m^2)	**234770**
% of Kelowna Wetland and Transitional Sites	**9.23%**

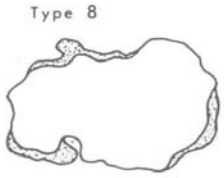




Open Water Type	6 (76-95% central)
Total Wetland Area (m^2)	129213
% of Kelowna Wetland and Transitional Sites	5.08%

Open Water Type	7 (76-95% patch)
Total Wetland Area (m^2)	15281
% of Kelowna Wetland and Transitional Sites	0.60%





Open Water Type	8 (>95%OW)
Total Wetland Area (m^2)	806487
% of Kelowna Wetland and Transitional Sites	31.72%

Figure 3. Wetland Biodiversity potential by Open Water Type – a measure of wetland complexity and ecotone abundance. *Illustrations take from the National Wetlands Working Group (1994).*

5.4 Functional Condition

Based on field inventory, background data review, and air photo interpretation, it is estimated that only 5% of the wetlands are in Non-functioning ecological condition. However, it is estimated that approximately 154 wetlands, accounting for about 58% of the total wetland area coverage (in the City), are Functionally At Risk (Table 5). Urban development is the primary factor influencing the ecologic function of wetlands in the City. Urban development factors such as encroachment, in-filling, draining, habitat fragmentation (from upland habitats and other functionally connected wetlands), contamination (e.g. stormwater), and hydrologic alteration are considered primary factors influencing the functional rating of wetlands.

Other factors influencing wetland function commonly relate to agricultural practices. Poor livestock and range management practices have resulted in significant impacts throughout much of the grasslands occurring in the Black Mountain and Ellison areas. This disturbance has lead to wetland community degradation and habitat simplification. Within these sites, invasive plants (e.g. Canada thistle) often begin to displace native species further impairing the potential function of a wetland or transitional saline meadow.

It is estimated that approximately 64 wetlands, accounting for about 37% of the total wetland area coverage (in the City) are in Proper Functioning Condition. Among these however, it is noted that there were some wetlands that had Modified Primary Characters. However, despite the past and present modifications, it was deemed that some of these wetlands were still in Proper Functioning Condition because they were not fragmented from functionally connected wetlands and upland habitats, they had intact riparian communities, low hydrological disturbances, contained a low proportion of alien species, and were not considered at imminent risk from development pressures within the City.

Table 5. Summary of ecological functioning condition of Kelowna wetlands.

Functional Rating	Cumulative Wetland Area (m^2)	Percent of Total Wetland
Functional At Risk	1460907	58%
Non Functioning Condition	130153	5%
Proper Functioning Condition	925611	37%

6.0 DISCUSSION

6.1 Dynamic Sites (Transitional Sites / Saline Meadows)

Transitional wetland-upland sites (saline meadows) are prevalent in the Glenmore, Ellison, and Black Mountain areas of the City. Many of these communities have poorly defined boundaries and, coupled with anthropogenic disturbance and hydrologic alteration, are transitional between wetland and upland associations. Potholes and shallow lakes in semi-arid regions often experience dramatic water table fluctuations in response to climatic cycles (Banner and MacKenzie, 2000). While it is recognized that during the 2007-2008 inventory and assessment that some of these basins were currently transitional and considered “non wetlands”, the dynamic condition of many of these sites may again result in a shift back to a ‘wetland’ in conjunction with increased periods of precipitation. Dry years have a marked impact on the size, boundaries, and plant communities of wetlands. Successive dry years, which have been more typical over the past decade or so, may lead to some wetlands disappearing, being replaced by moist to very moist sites such as saline meadows, only to reappear following successive wet periods. Banner and MacKenzie (2000) note that this dynamic cycle is favourable to many marsh species. In addition, these small open water and vernal communities may provide critical reproductive habitats for species of conservation concern such as the Great Basin Spadefoot and tiger salamander. Therefore, this hydrodynamic position should be considered carefully in landuse planning exercises and careful consideration should be given to sites that are considered transitional communities.

6.2 Wetland Size and Biodiversity Considerations

Wetland size does not necessarily determine the value of a given wetland for wildlife and overall biodiversity. Many wetlands have rates of net primary productivity that are among the highest of any ecosystem in the world. Large amounts of biomass created in wetlands support large concentrations of animals in relatively small areas and fuel downstream aquatic ecosystems (Bigley and Hull, 2000). This can be especially significant in arid regions such as the Okanagan valley, where a small isolated basin, with seemingly insignificant size (i.e., a small area or spatial footprint) may be extremely important. For instance, a small basin may provide critical reproductive habitat for amphibians such as the Great Basin spadefoot, tiger salamander, western toad, and pacific chorus frog. In addition, a great diversity of flying insects depend on shallow aquatic communities for reproduction, and larval development. Many insects are dependant on wetlands, and both the larval and adult stages of these insects serve as a vital food source for other animals including a diversity of birds and bats. Subsequently, many of these flying insects are important and often critical food items for wildlife. The continued loss of remnant vernal pools (saline meadows) and seemingly non-functioning shallow water communities may further exacerbate an already cumulative response of wetland habitat loss, and could result in impacts to a great diversity of species.

6.3 Landuse Planning Considerations

6.3.1 Non-Functioning to Marginally Functioning Sites

Highly modified sites and relatively young wetlands (that have resulted from hydrologic changes such as ditching and stormwater management) are prevalent in rural and semi urban areas. Many of these sites now have wetland characteristics and have begun to naturalize as wetland sites. Although created, the vegetation communities that are establishing in these areas, in conjunction with wetland soil and hydrologic conditions are beginning to provide functional benefits for wildlife that depend on wetlands for various life requisites – be it feeding, reproduction, security/cover, and general living.

Although some of these wetland features are not naturally occurring, consideration should be given for the maintenance and enhancement of these features because they are naturalizing and have the capability of providing valuable habitat. While maintaining the existing spatial configuration of some of these newly developed wetland features may not be feasible, planners and environmental professionals should investigate preservation of the modified hydrologic conditions that favour wetland development. By considering factors that have resulted in new wetland development, we may begin to reclaim wetland sites in an incremental fashion and help reverse the historic trend of large-scale wetland community loss. In addition to local enrichment of biodiversity, new and restored wetland communities may enhance social values by providing educational opportunities, nature enjoyment, improving water quality, and helping with flood attenuation.

6.3.2 Water Quality Protection and Maintenance of Hydrology

While the extents of a particular development may aim to avoid an identified wetland, alterations in surface and/or groundwater flow regimes surrounding the wetland can have negative implications on that wetland. Road cuts, stormwater systems, fill, and compaction along slopes and through gullies can divert or intercept surface runoff and shallow groundwater flows, which could result in a negative water balance. A negative water balance could result in the eventual loss of a particular wetland as it essentially dries up. Conversely, maintaining a more natural pre-development drainage pattern, by directing surface runoff from new road surfaces to a subject wetland, also presents considerable challenges for protection of the long term water quality of a wetland. Recognizing this, professionals and land use planners should carefully consider the potential impacts of land development on wetlands, particularly those in proper functioning condition, because the sensitive organisms that require these communities (e.g., long-toed salamander) can be significantly impacted by changes in either water quantity or quality. This involves maintaining predevelopment drainage patterns to ensure a continued and stable hydrological regime, without compromising or severely impacting the wetland communities from the potentially harmful effects of stormwater run-off (i.e., prevent direct discharge of untreated storm water to a natural wetland).

6.3.3 Connectivity and Proximity to Other Wetlands

Habitat connectivity helps further maintain a wetland's high fish and wildlife value. Future landuse planning should emphasize the preservation of functional connections between wetlands, especially those that occur within 750 m of another wetland or that are considered linked basins, to maintain the biodiversity and complex wetland characteristics that occur in these diverse sites. Within Kelowna and in many other municipalities, wetlands are often avoided and/or preserved within a particular urban development area but are fragmented from adjacent wetlands that may have had important functional associations for organisms such as the painted turtle. These functional connections should be maintained or restored where possible to allow for migration/dispersal between wetlands. Dispersal corridors and connectivity between wetlands is extremely important for less mobile species such as painted turtles, but is also extremely important for species of insects such as dragonflies that rely upon cues from natural surroundings to locate new habitats.

Thus, avoidance of habitat fragmentation, where wetlands are separated from the adjacent natural upland/terrestrial habitats, is important because it maintains a functional connection of the wetland to upland areas, and promotes establishment of an effective buffer to absorb edge effects.

6.3.4 Buffers

Buffers should be established and preserved surrounding wetlands to help maintain the functioning condition of wetlands. Buffers have several important functions in protecting wetlands and their ecological function including:

- High filtration capacity; where vegetation within the buffer can protect the wetland from sedimentation and pollution;
- Regulation of flow velocity; where the vegetation and undisturbed soils within the buffer can slow stormwaters and reduce erosion;
- Helping maintain hydrologic connectivity (i.e., water balance) and maintaining the wetland hydrology near natural levels;
- Reducing the effects of edges on wetlands and their associated transitional riparian habitats (e.g., acting as a buffers between human activities and helping to prevent invasive plant establishment);
- Provide important diverse edge habitat for wildlife (i.e., ecotones);

6.4 Mitigation, Compensation and Restoration

The concepts of mitigation and compensation are commonly used in the environmental practice. Generally, mitigation measures are defined as those that are intended to reduce or lessen the severity of a particular activity. Thus, mitigation is typically considered as including activities such as erosion and sediment control, pre-treatment of storm water discharges, etc. Compensation measures are typically defined as those measures intended to replace or make up for the partial or complete loss of a wetland and its ecological function. The two words are often used interchangeably and are often times confused. For the purposes of this report, the definitions above should be used to interpret discussions below.

6.4.1 Performance Standards

Performance standards are defined as measurable attributes of restored or created wetlands that, when measured can be used to judge whether project objectives have been met (Society of Wetland Scientists, 2000). Landuse planning documents that are intended to facilitate wetland creation or restoration, whether it be part of a compensation or restoration project, should include clearly articulated performance standards that reflect the structural and functional objectives of the project. Created wetlands have a higher likelihood of failure to meet the functional objectives than restored wetlands due to the fact that remnant conditions in the non-functioning site, such as hydric soils, hydrology, seed banks, roots, and rhizomes may still be present (Society of Wetland Scientists, 2000). Regardless, created or restored wetlands projects should include long-term monitoring and management initiatives to ensure they continue to meet initial functional objectives agreed upon at the onset of the project. Without this type of approach, it is probable that many projects will not succeed and there will be a continued loss of wetlands. Minns *et al* (1996) stated that restoration efforts are often rushed and little effort is expended to understand the successes or failures of these types of projects. Although this study was discussing fisheries restoration projects, the premise of having clear goals and understanding the success and

failures of different initiatives is transferable and highlights the importance of identifying and assessing whether a project has met the intended outcome.

6.4.2 Mitigation Strategies

As discussed above, mitigation strategies should focus on maintaining the functionality of a wetland. Generally, Section 5.3 above highlights some of the primary factors that can influence or impact the functional rating of a wetland. Thus, mitigation strategies prepared should attempt to address these concerns and any others that environmental or planning professionals deem to be of concern for a particular project.

6.4.3 Compensation and Compensation Ratios

Compensation will typically occur when a measurable loss to wetland habitat will occur. Typically, these losses occur during activities that will directly influence the boundaries of the wetland or the surrounding communities / habitats. Having said this, compensation for losses which are more difficult but predictable should also be considered (e.g., a road or service cut is anticipated to affect the water balance of a wetland and this cannot be mitigated).

The concept of compensation is premised upon a "no net loss" approach. The no net loss approach assumes that potential losses or impacts to a wetland can be measured and quantified and, once quantified, proposals can be prepared to ensure no net loss of habitat. To ensure that there is no net loss, compensation ratios are typically used.

Compensation ratios are meant to compensate for two factors:

a. The temporal loss of wetland function from the time the impacts are made to the time the mitigation site is mature; and

b. The risk of mitigation failure.

Comprehensive wetland mitigation and compensation performance assessments were carried out by Robb (2002) by comparing the area of wetland actually established through the mitigation process to the area of permitted loss. This study revealed that constructed palustrine forests had a failure rate of 71%, and wet meadow areas had a failure rate of 87% and were harder to establish than shallow marsh areas (17% failure) and open water areas (4% failure). Based on this study alone, Robb (2002) recommended that the minimum compensation ratios of 3.5:1 be established for palustrine sites, 7.6:1 for wet meadows, 1.2:1 for shallow marsh, and 1:1 for open water to compensate for the risk of failure. Beyond these ratios, additional mitigation may be needed to offset the effects of temporal loss of wetland function.

Given the high probability of failure, projects involving compensation should have well developed performance standards from which measurements can be made to determine if a project is successful. Performance standards should include a science based approach to

identify appropriate compensation ratios and should include criteria that can be measured to determine whether the project has met compensation requirements in both the short and long term. As mentioned previously, without this approach it is probable that there will be a long term loss of wetland habitat over time in addition to the significant areas which have already been impacted, impaired, or lost.

6.4.3 Biodiversity enhancements in the urban context

The high net primary productivity of many wetland communities creates large amounts of biomass on an annual cycle. In urban wetlands, the process of natural succession may result in the eventual in-filling of wetlands as organic material and sediments accumulate. Without other natural processes, resulting in new wetland creation (e.g., beaver dams, scour, and flooding), there is potential that wetland communities could be naturally replaced over time with transitional and upland sites. In some cases, the time period for this could be quite short if a wetland accumulates large amount of biomass on an annual basis. Given this, an adaptive management strategy may be important to ensure that a diversity of wetland ecosystems will occur in the long term within urban areas. This type of approach would involve preparing functional objectives to ensure that wetland communities are maintained on a larger temporal scale.

Closed, often homogeneous stands of reed canary grass, and cattail, and bulrush are a predominate wetland community throughout the City. In some instances these sites, notably reed canary grass sites, may be in disclimax. Under some circumstances, wetland community enrichment may benefit biodiversity values for a particular wetland. Wetland community enrichment could involve the creation of additional community types such as open water pockets – emulating Open Water Type 5 wetlands (described above) that would dramatically increase a wetlands site potential. However, such works must be carefully considered and assessed on a case by case basis. Specific cautions to consider include the current wetland use and function, identification of specific performance standards as described previously in Section 5.4.1, timing of the undertaking (i.e., ensure it doesn't coincide with reproductive, incubation, or emergence periods), and any other factors that may be identified. Ultimately, biodiversity enhancements in an urban context should be well planned and based on an appropriate scientific approach prior to any action on the ground.

7.0 CLOSURE

The inventory that has been summarized within this report was commissioned by and prepared for the City of Kelowna. Questions or inquires pertaining to wetland inventory methodology, data, and this summary report should be directed to the undersigned.

Respectfully Submitted
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REFERENCES

Banner, A. and W. MacKenzie. 2000. The Ecology of Wetland Ecosystems – Extension Note. B.C. Ministry of Forests Research Branch. 12pp.

Bigley, R.E. and S.W. Hull. 2000. Recognizing wetlands and wetland indicator plants on forest lands in Washington. Washington State Department of Natural Resources, Scientific Support Section, Olympia, WA. 154pp.

Bridges, Clay, S. Leonard, R. Krapf, and W. Hagenbuck. 1994. Process for Assessing Proper Functioning Condition for Lentic Riparian-Wetland Areas (Technical Reference 1737-11). U.S. Department of the Interior, Bureau of Land Management. Service Center. Denver, Colorado. USA.

Ecoscape Environmental Consultants Ltd. 2007. Kelowna Sensitive Habitat Inventory and Mapping. Inventory Summary Report – Volume 2. 162pp.

Lea, Ted. 2008. Historical (Pre-settlement) ecosystems of the Okanagan valley and Lower Similkameen Valley of British Columbia – Pre-European contact to the present. Davidsonia Vol 19:1:3-36.

Mackenzie, W.H., and Jennifer Moran. 2004. Wetlands of British Columbia - A guide to identification. British Columbia Ministry of Forests, Forests Science Program. 287pp.

Mason, B., and R. Knight. 2001. Sensitive Habitat Inventory and Mapping. Community Mapping Network, Vancouver, British Columbia. 315pp + viii. M. Johannes, Editor.

Minns, C.K., J.R.M. Kelso, R.G. Randall. 1996 Detecting the response of fish to habitat alterations in freshwater ecosystems. Canadian Journal of Aquatic Sciences. Vol. 53 (Supple. 1) ppg. 403-414.

National Wetlands Working Group. 1994. Ontario Wetland Evaluation System - Northern Manual (Rev. 1st Edition). Ontario Ministry of Natural Resources Warehouse #50254. University of Waterloo, Ontario.

Prichard, D., H. Barrett, J. Cagney, R. Clark, J. Fogg, K. Gebhart, P.L. Hansen, B. Mitchell, and D. Tippy. 1993. Riparian Area Management: Process for Assessing Proper Functioning Condition. TR 1737-9 (Revised 1998). Bureau of Land Management,BLM/SC/ST-93/003+1737+REV95+REV98, Service Center, CO. 51 pp.

Pojar, J, K. Klinka, and D.V. Meidinger. 1987. Biogeoclimatic ecosystem classification in British Columbia. For. Ecol. And Manage. 22:119-154.

Robb J. T. 2002. Assessing Wetland Compensation mitigation sites to aid in establishing mitigation ratios. Wetlands. 22:2 (2002).

Schleppe, J. and D. Arsenault. 2006. The Kelowna Shore Zone Fisheries and Wildlife Habitat Assessment. EBA Consulting Engineers and Scientists. Project File: 0808-8840209. March 2006. Prepared for the City of Kelowna.

Society of Wetland Scientists. 2005. Position Statement on Wetland Mitigation Banking. 4pp.

Society of Wetland Scientists. 2000. Position Paper on Performance Standards for Wetland Restoration an Creation. 4pp.

Urban Systems. 1998. Wetland Habitat Management Strategy. Prepared on Behalf of the City of Kelowna. 74pp.

Warner, B.G., and C.D.A. Rubec. 1997. The Canadian Wetland Classification System. National Wetlands Working Group.68pp.

MAP SHEETS

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Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

Lacustrine System
Sites at lakeside (open waterbodies), directly affected by lake hydrological processes (e.g., wave action, flooding, and sedimentation).

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Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface. They receive water from precipitation, groundwater discharge, and surface runoff. There are no surface inlets or outlets. Water loss is primarily by evaporation and, depending on the retention time and permeability of geological substrates, waters may be fresh or more saline.

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Palustrine Slopes/Spring
Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

Okanagan Lake

Map 'A-4'

FINCH RD.

GLENMORE RD. N.

B3-1

A4-1

A6-5

Wetland Inventory

Map 'A-4'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

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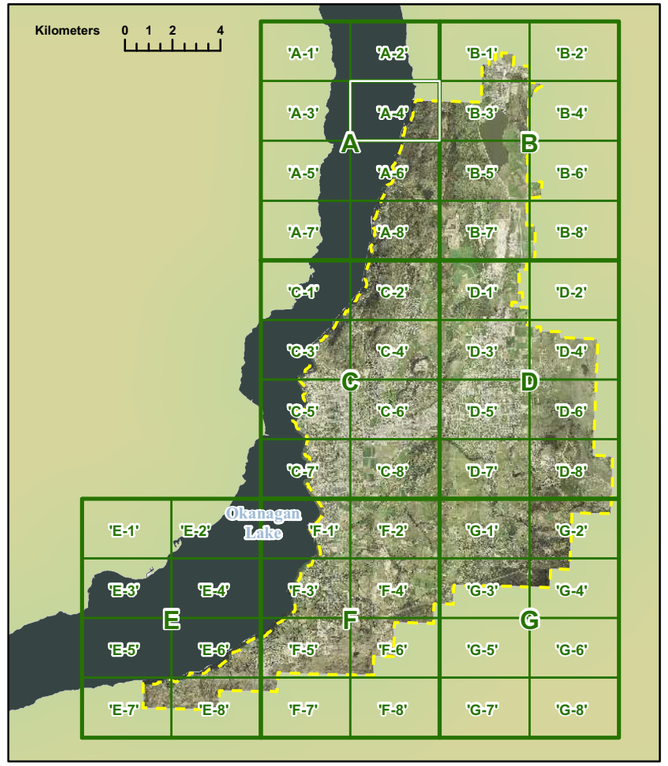
N W E S

SOURCE INFORMATION

Base Map:	82E.093 / 82L.003 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin WATER BOARD · Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'A-6'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

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N W E S

SOURCE INFORMATION

Base Map:	82E.093 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

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Other
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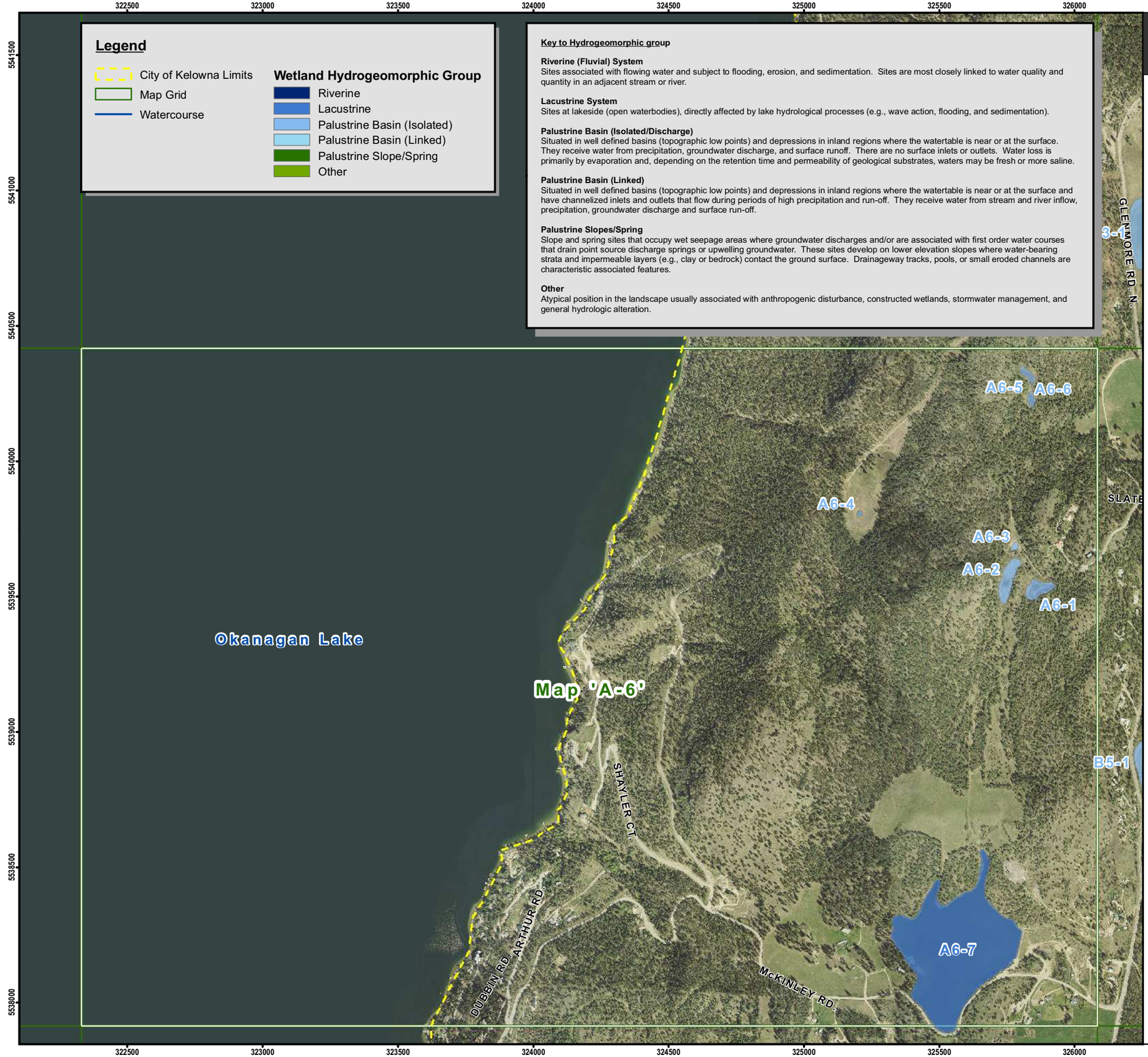

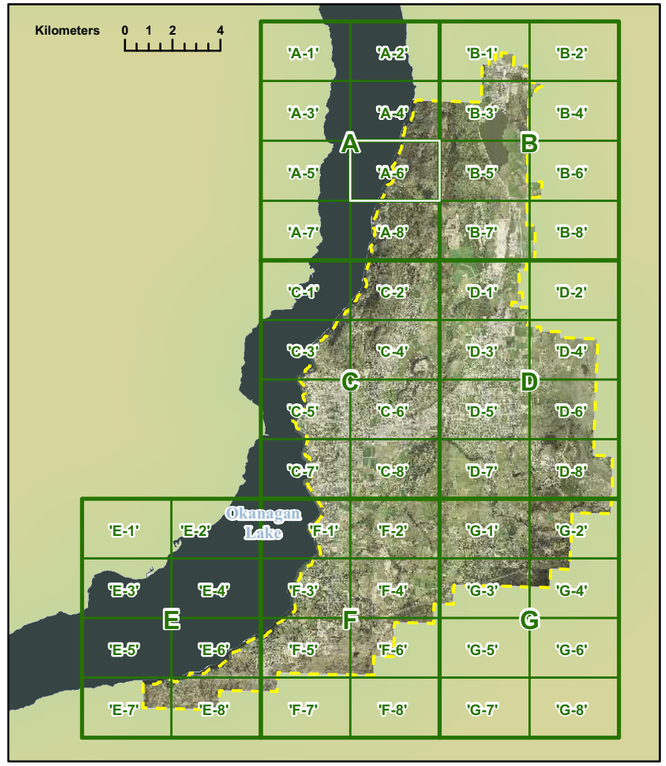

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Wetland Inventory

Map 'A-8'

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

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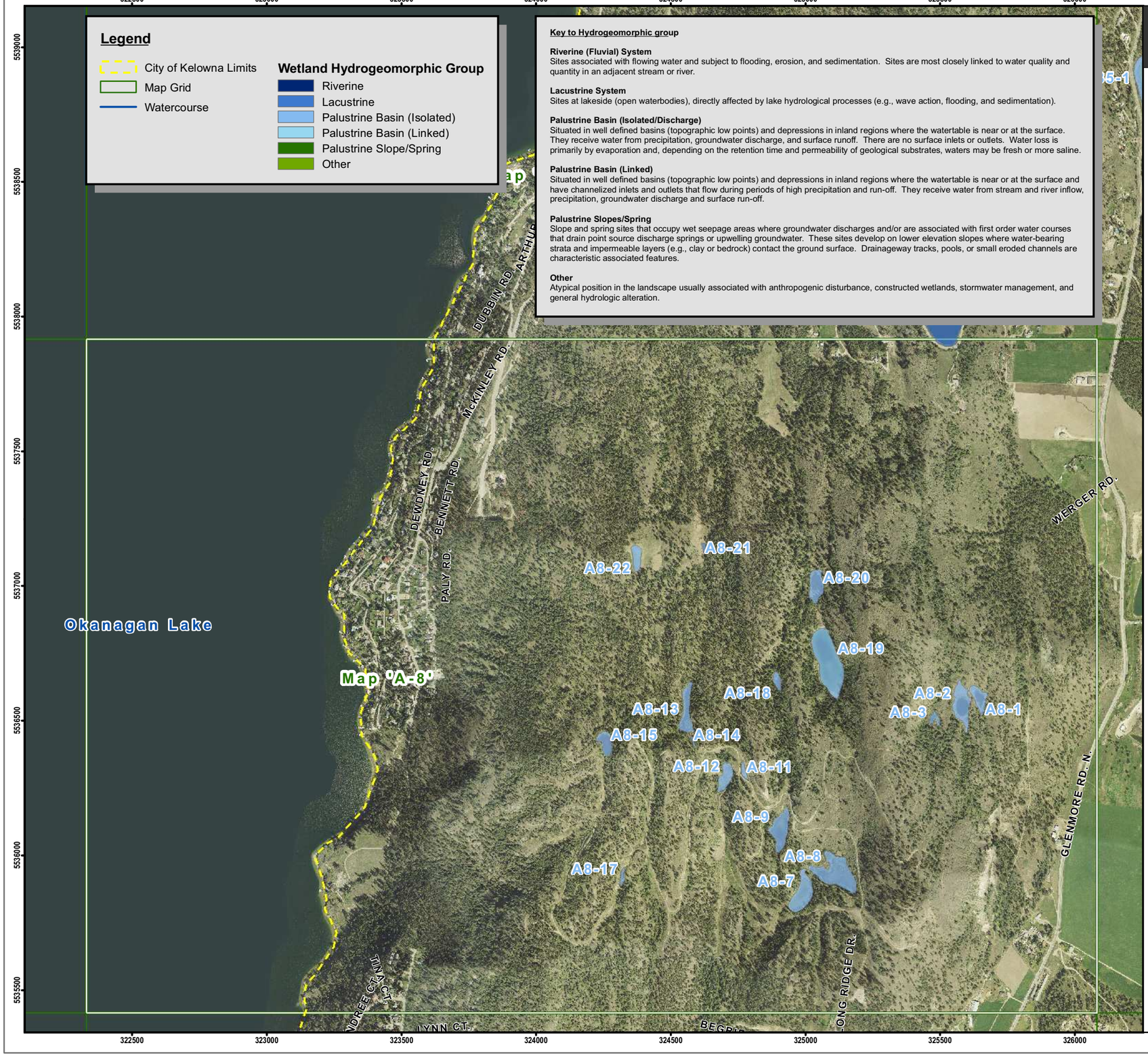
Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.



Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

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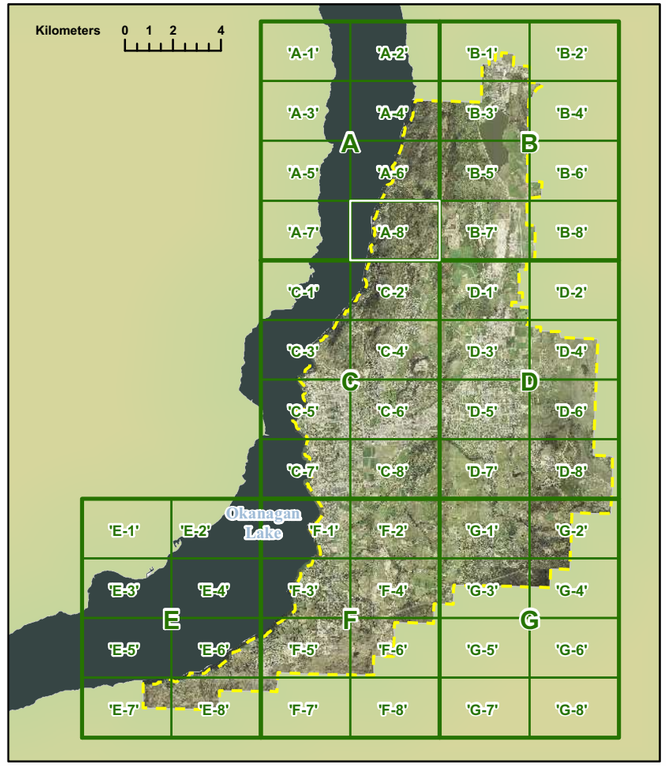
N W E S

SOURCE INFORMATION

Base Map:	82E.093 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin WATER BOARD · Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'B-1'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

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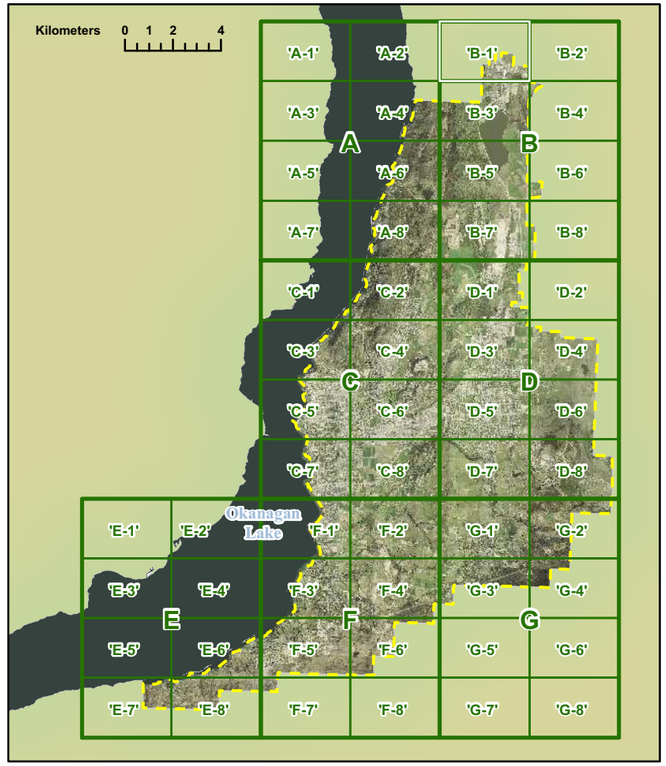
N W E S

SOURCE INFORMATION

Base Map:	82L.003 / 82L.004 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

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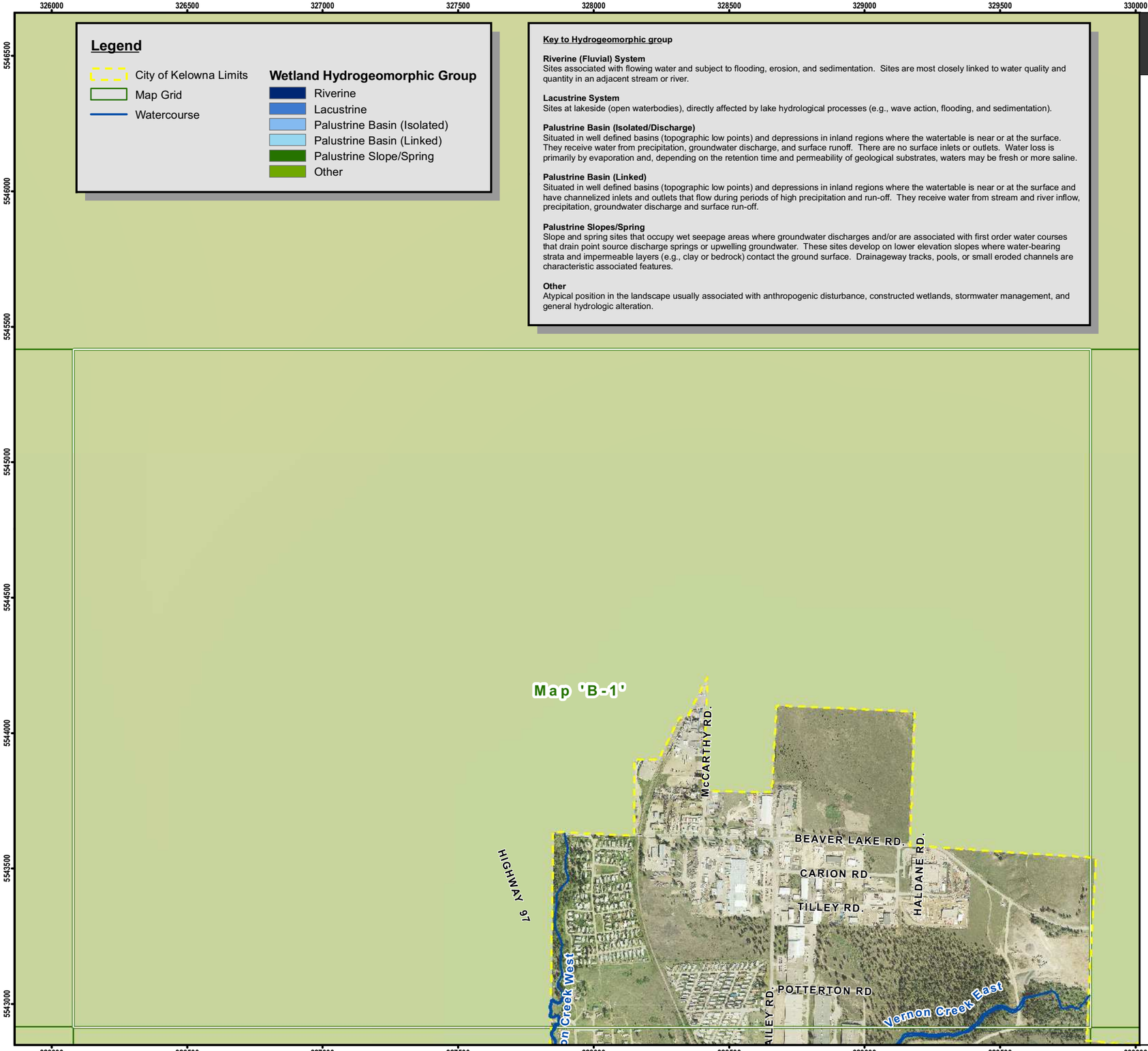
Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.



Wetland Inventory

Map 'B-3'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

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N W E S

SOURCE INFORMATION

Base Map:	82L.003/82L.004/82E.093/82E.094 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

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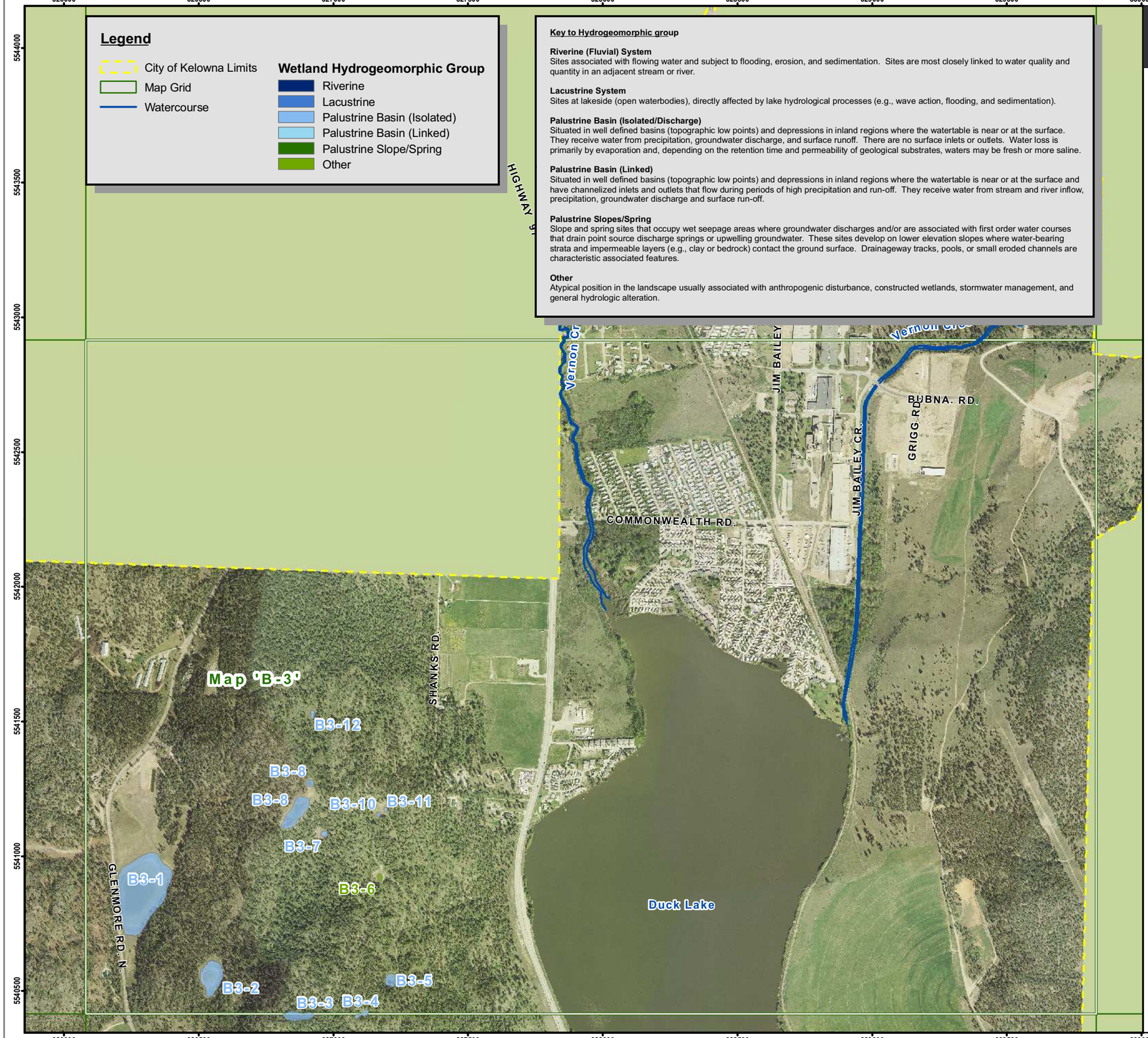
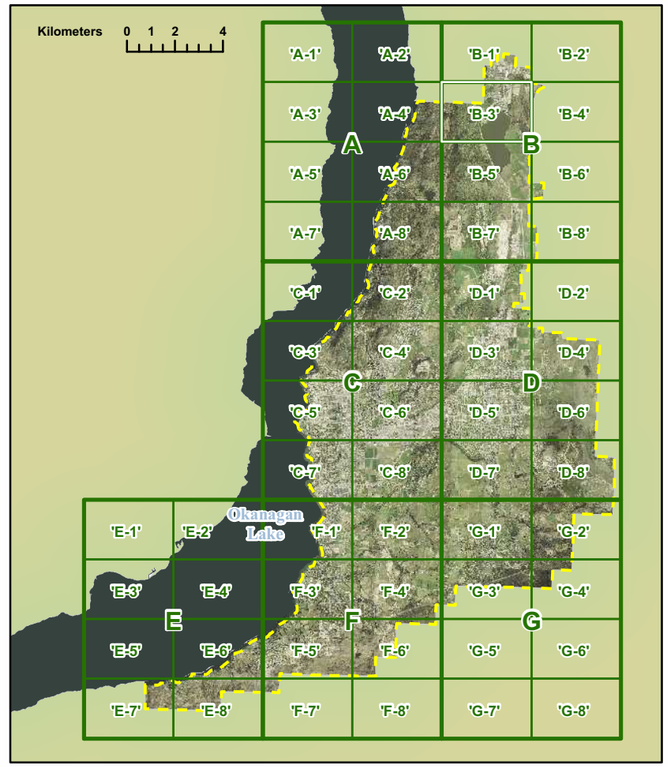
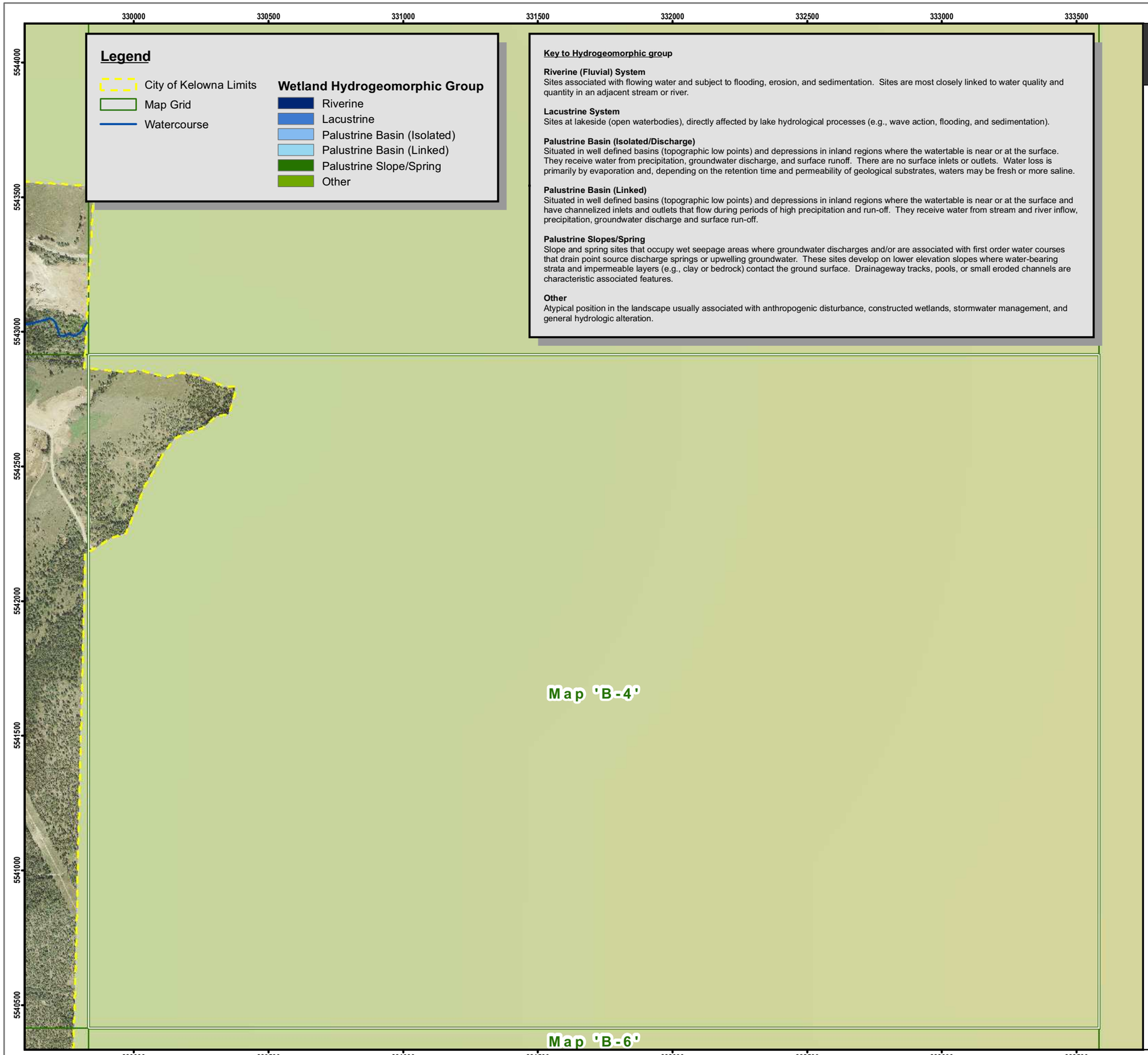




City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada — Canada's Conservation Company · ECOSCAPE Environmental Consultants Ltd



Wetland Inventory

Map 'B-4'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

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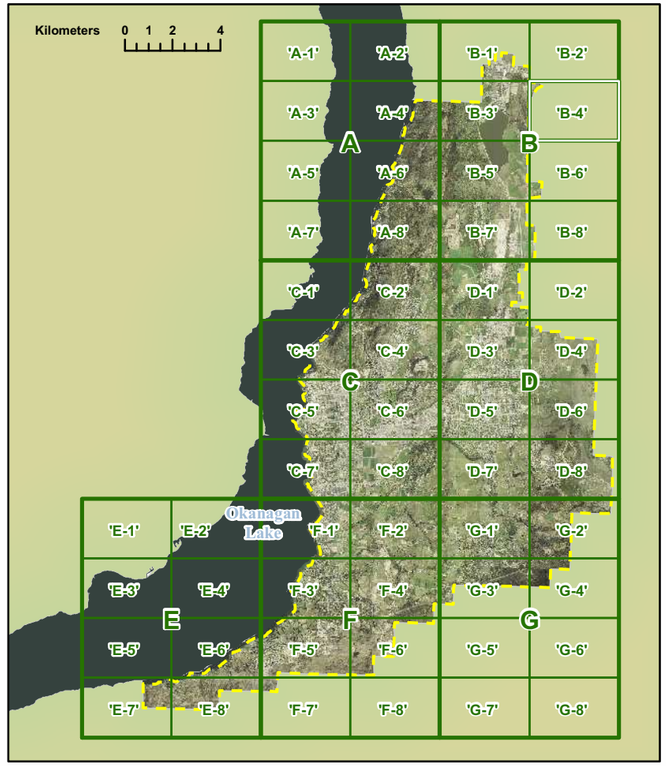
N W E S

SOURCE INFORMATION

Base Map:	82L.004/82E.094 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna

Okanagan Basin WATER BOARD

Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY

ECOSCAPE Environmental Consultants Ltd

Wetland Inventory

Map 'B-5'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

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N W E S

SOURCE INFORMATION

Base Map:	82E.093/82E.094 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
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Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

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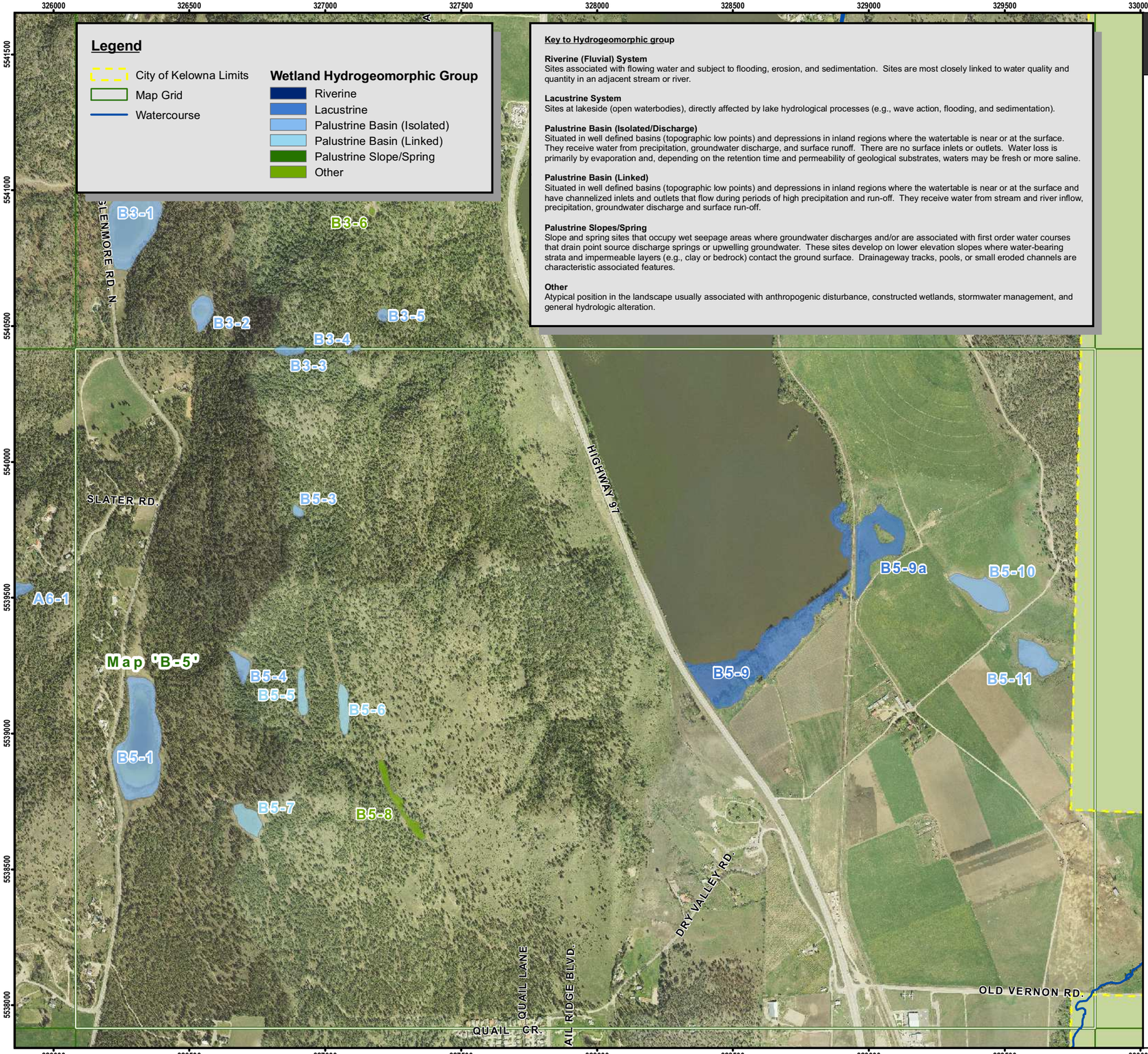
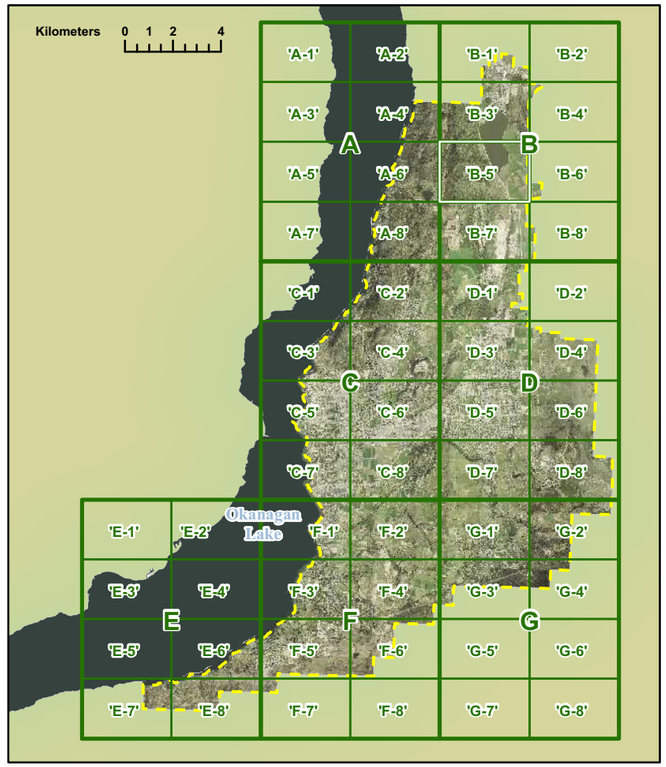
Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

Kilometers 0 1 2 4



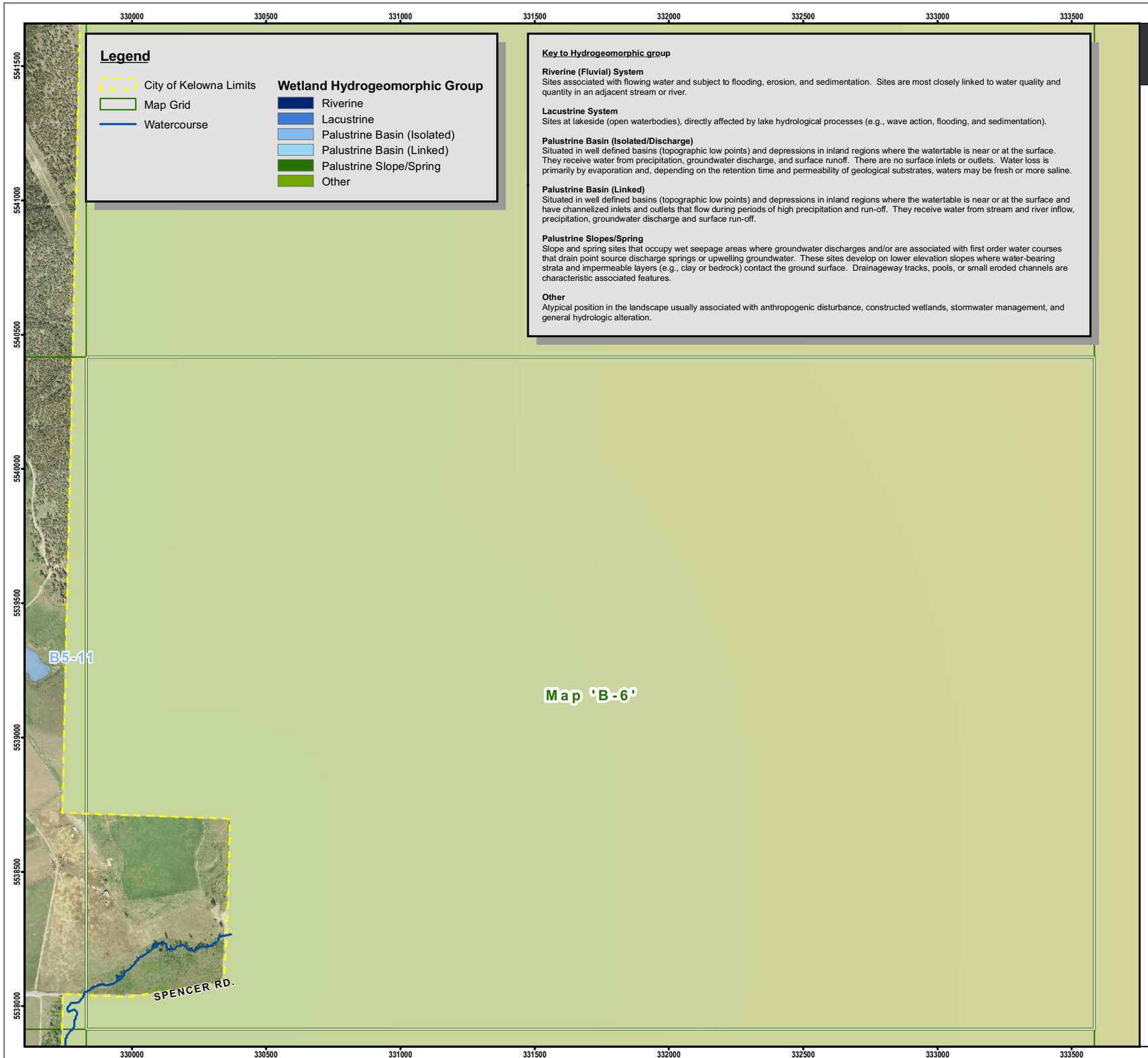


City of Kelowna

Okanagan Basin WATER BOARD

Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY

ECOSCAPE Environmental Consultants Ltd.



Wetland Inventory

Map 'B-6'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

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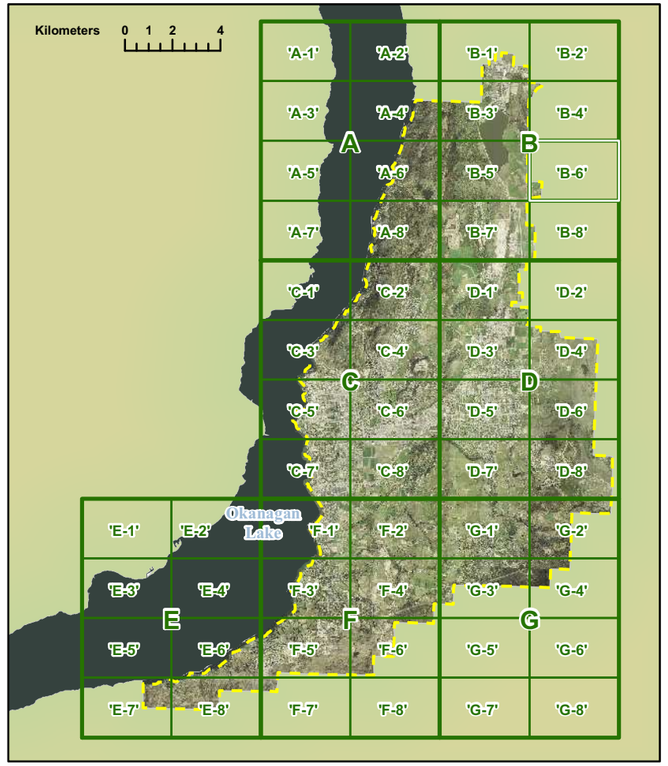
N W E S

SOURCE INFORMATION

Base Map:	82E.094 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

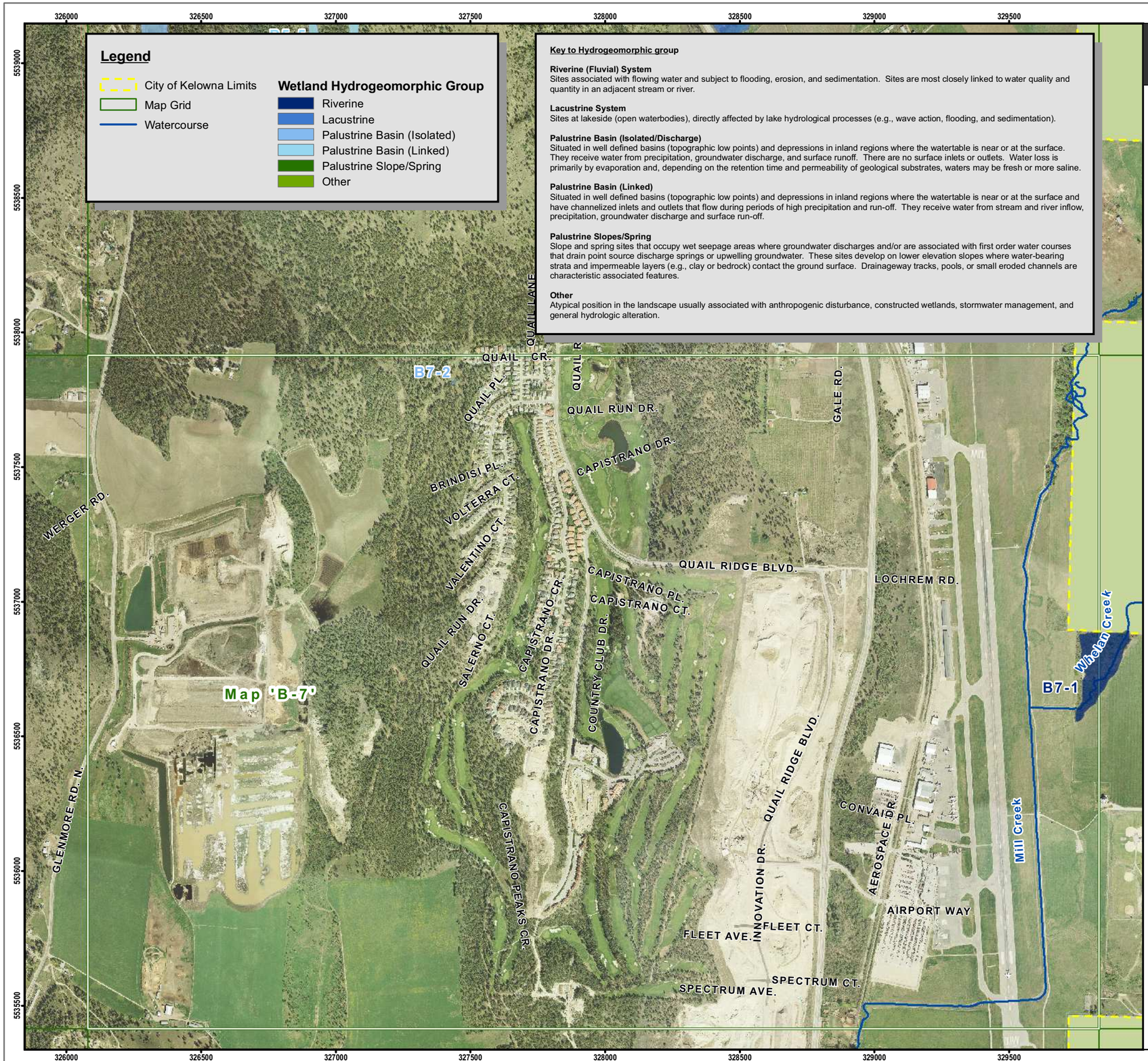


City of Kelowna

Okanagan Basin WATER BOARD

Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY

ECOSCAPE Environmental Consultants Ltd.



Wetland Inventory

Map 'B-7'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

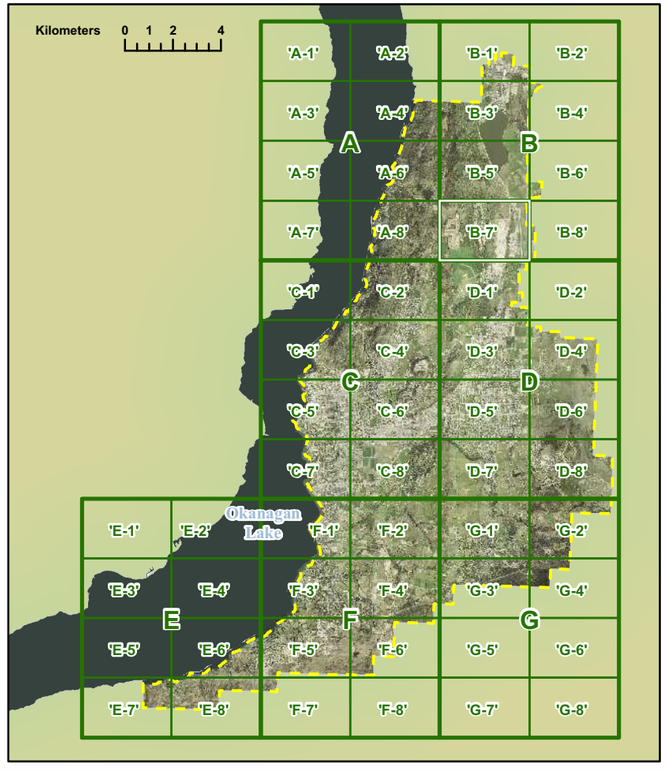
250 125 0 250 500 750 Meters

1:15,000

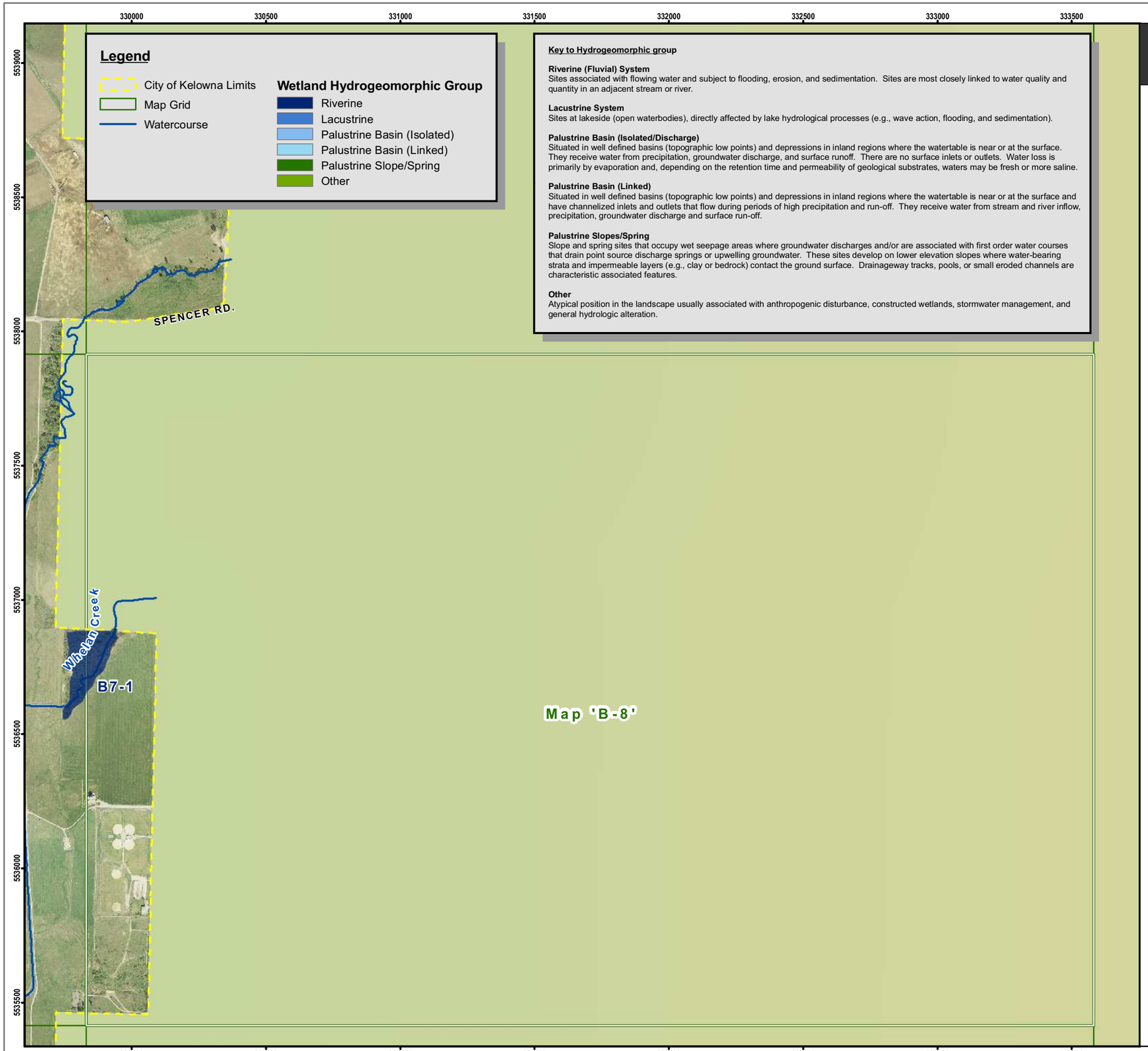
N W E S

SOURCE INFORMATION

Base Map:	82E.093/82E.094 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada, Canada's Conservation Company · Ecoscape Environmental Consultants Ltd.



Wetland Inventory

Map 'B-8'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

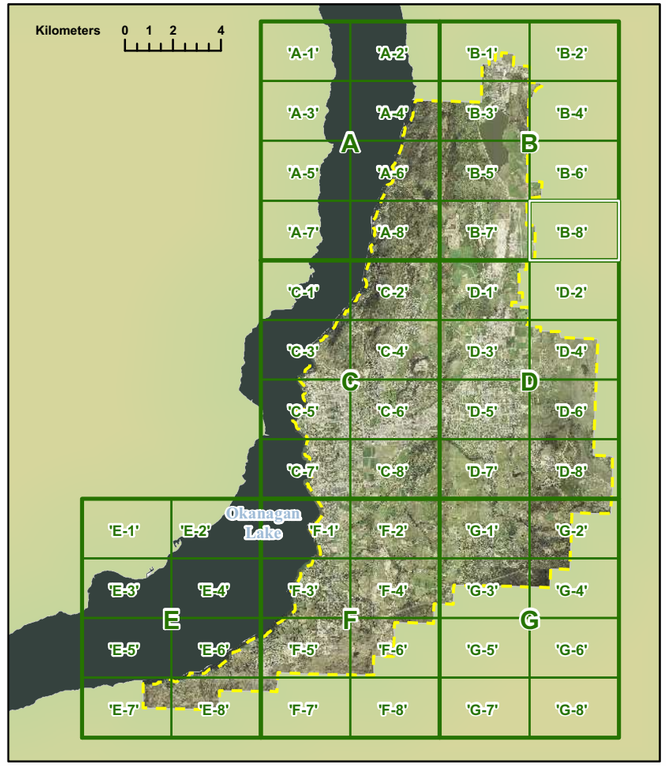
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.094 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



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Wetland Inventory

Map 'C-1'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.093 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

Lacustrine System
Sites at lakeside (open waterbodies), directly affected by lake hydrological processes (e.g., wave action, flooding, and sedimentation).

Palustrine Basin (Isolated/Discharge)
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface. They receive water from precipitation, groundwater discharge, and surface runoff. There are no surface inlets or outlets. Water loss is primarily by evaporation and, depending on the retention time and permeability of geological substrates, waters may be fresh or more saline.

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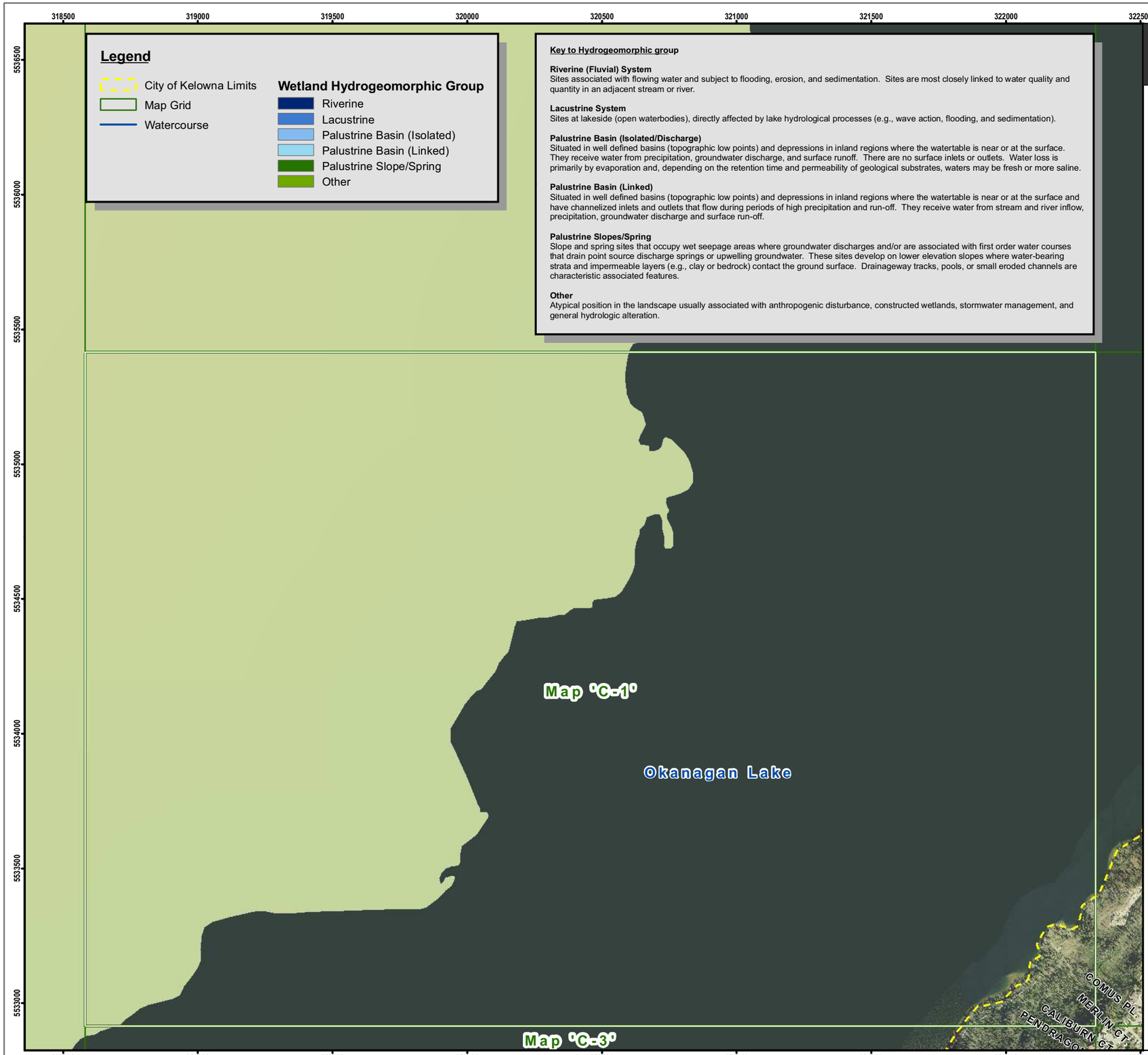
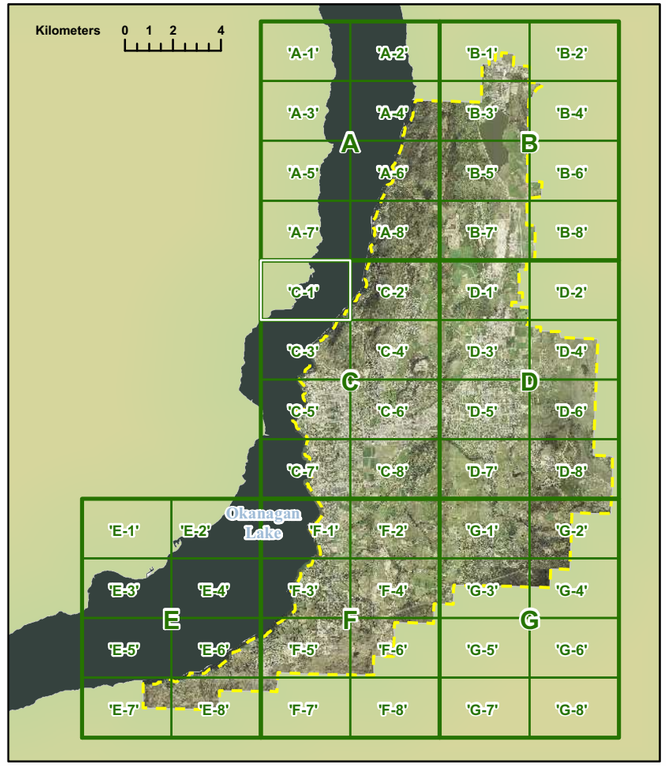
Palustrine Slopes/Spring
Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.





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Wetland Inventory

Map 'C-2'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.093 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

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Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

Okanagan Lake

Map 'C-2'

C2-1 C2-2 C2-3 C2-4 C2-5 C2-6 C2-7 C2-8 C2-9 C2-10 C2-11 C2-12 C2-13 C2-14 C4-2 C4-4

CLIFTON ROAD NORTH

UNION RD.

SCENIC RD.

VALLEY RD.

CROSS RD.

Brandt Creek

Brandt Creek - East Arm

322500 323000 323500 324000 324500 325000 325500 326000

5536500 5536000 5535500 5535000 5534500 5534000 5533500 5533000

Kilometers 0 1 2 4

'A-1' 'A-2' 'B-1' 'B-2'
'A-3' 'A-4' 'B-3' 'B-4'
'A-5' 'A-6' 'B-5' 'B-6'
'A-7' 'A-8' 'B-7' 'B-8'
'C-1' 'C-2' 'D-1' 'D-2'
'C-3' 'C-4' 'D-3' 'D-4'
'C-5' 'C-6' 'D-5' 'D-6'
'C-7' 'C-8' 'D-7' 'D-8'
'E-1' 'E-2' 'F-1' 'F-2' 'G-1' 'G-2'
'E-3' 'E-4' 'F-3' 'F-4' 'G-3' 'G-4'
'E-5' 'E-6' 'F-5' 'F-6' 'G-5' 'G-6'
'E-7' 'E-8' 'F-7' 'F-8' 'G-7' 'G-8'

A B C D E F G

Okanagan Lake

City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada · ECOSCAPE

Wetland Inventory

Map 'C-3'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083/82E.093 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
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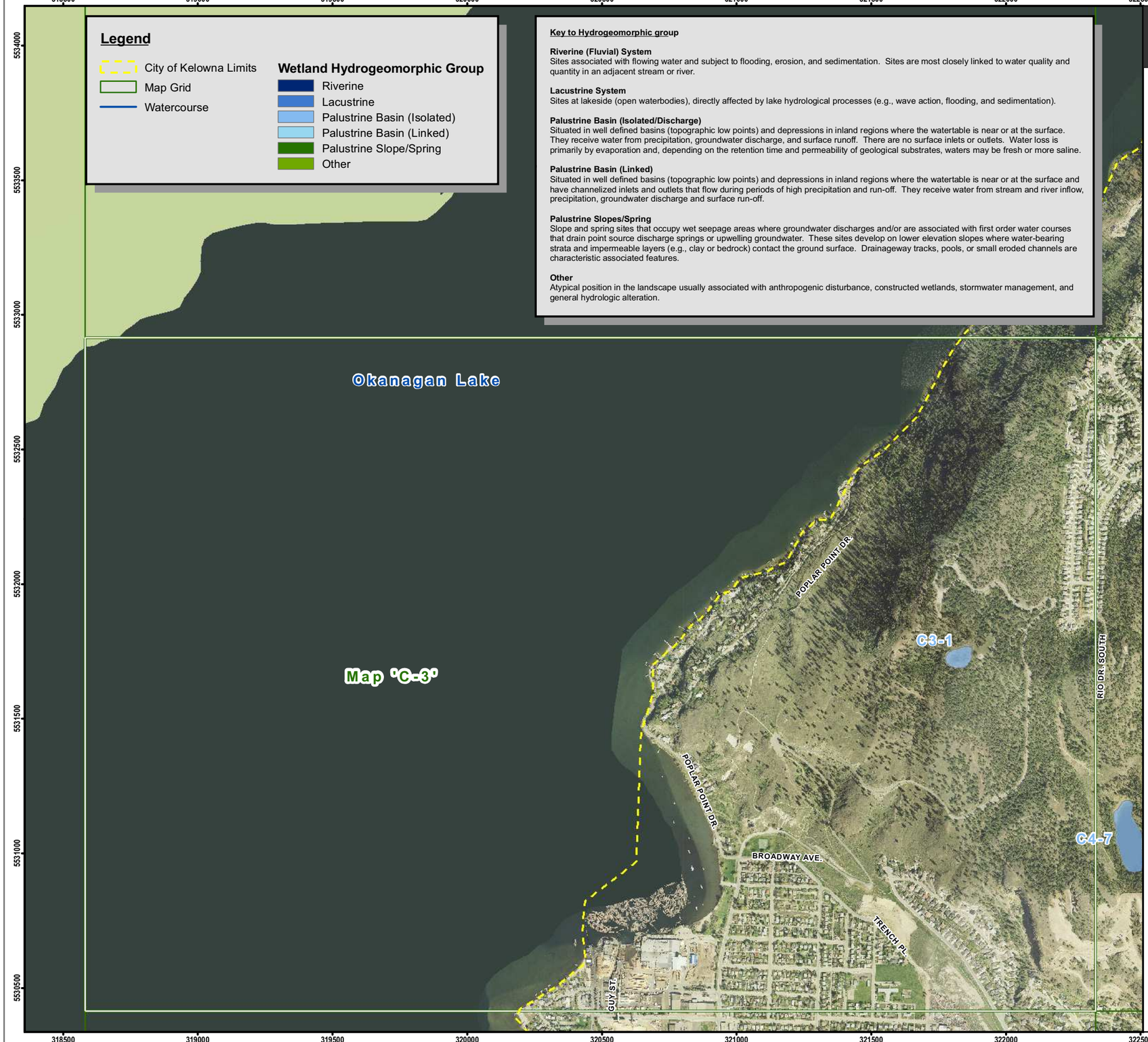
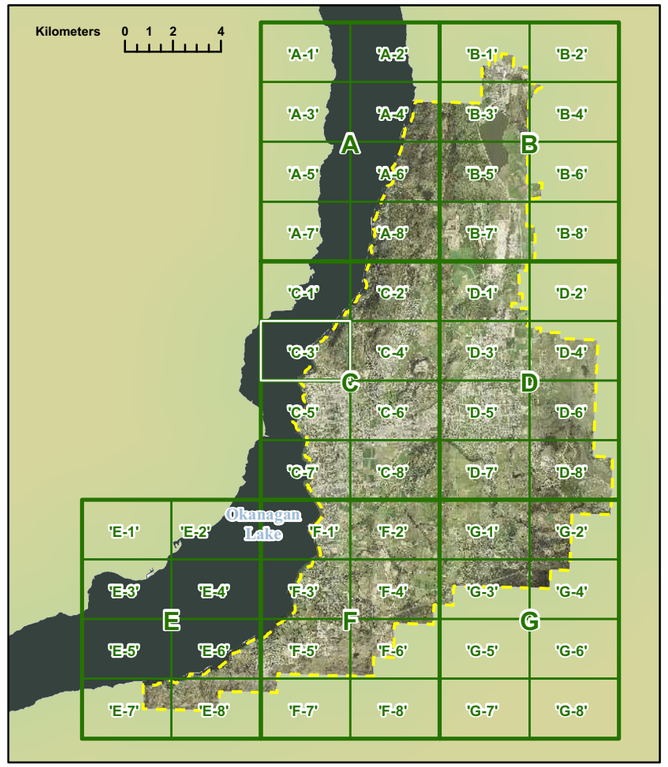
Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.





City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada, Canada's Conservation Company · Ecoscape Environmental Consultants Ltd.

Wetland Inventory

Map 'C-4'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

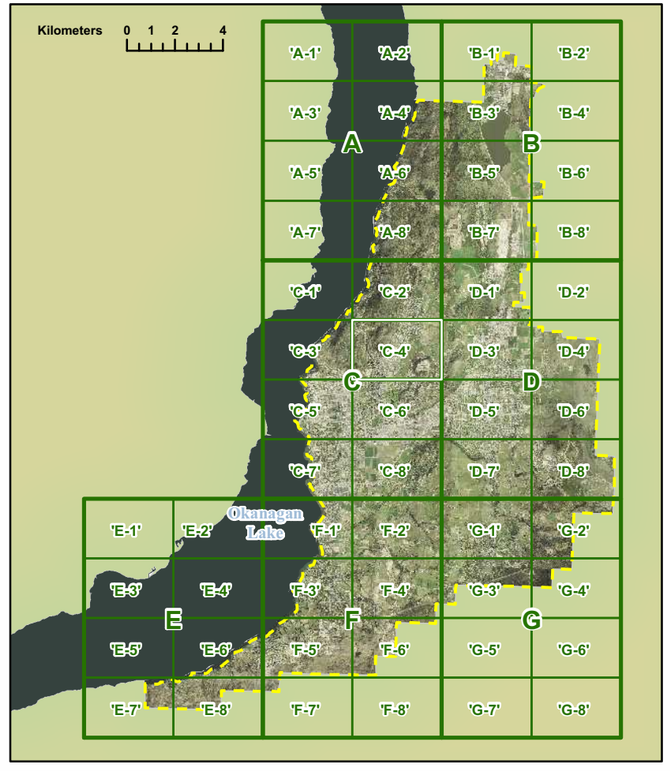
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.093 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



Key to Hydrogeomorphic group

Riverine (Fluvial) System
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Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

Legend

City of Kelowna Limits
Map Grid
Watercourse

Wetland Hydrogeomorphic Group
Riverine
Lacustrine
Palustrine Basin (Isolated)
Palustrine Basin (Linked)
Palustrine Slope/Spring
Other

Wetland Inventory

Map 'C-5'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

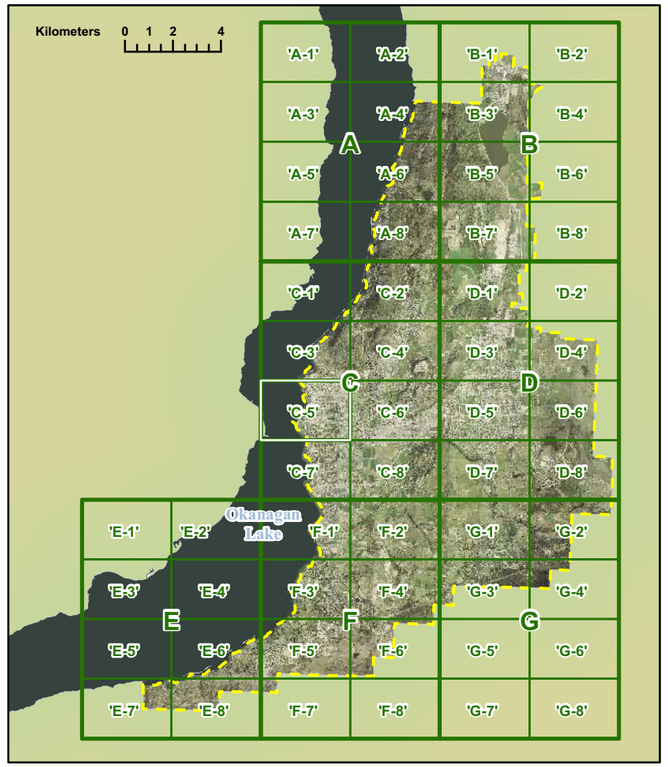
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.082 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

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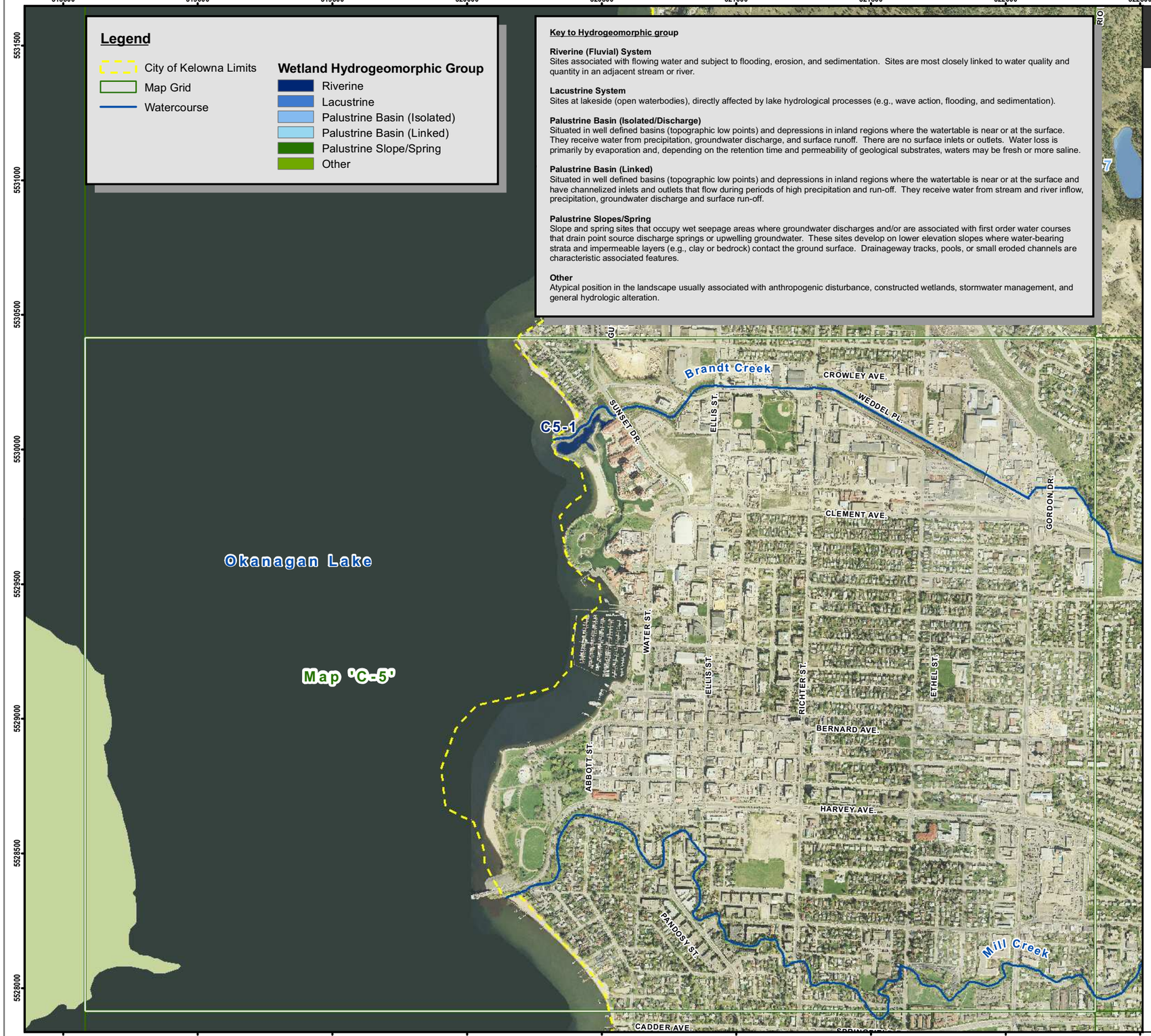


City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada, Canada's Conservation Company · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'C-6'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

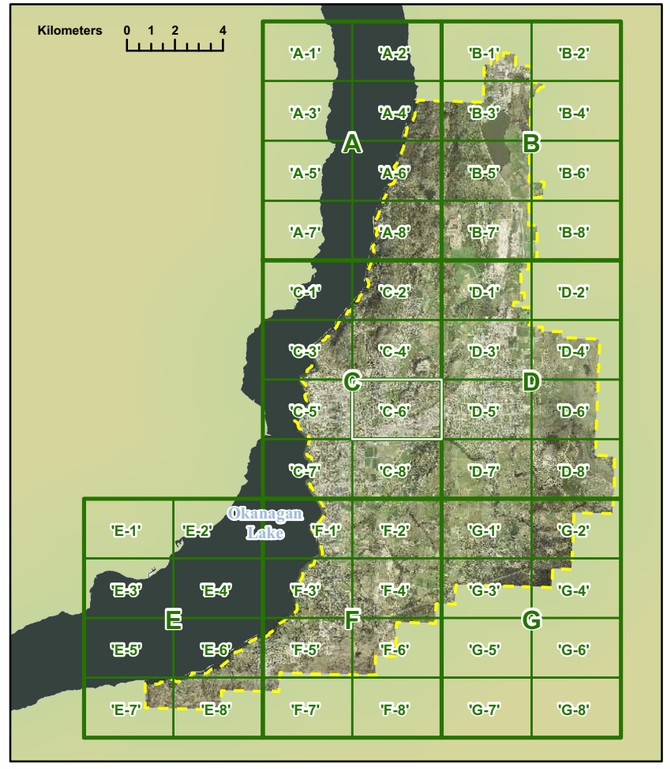
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.082 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada · ECOSCAPE Environmental Consultants Ltd.

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

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Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

Map 'C-4'
Map 'C-6'
C6-2
C6-3
C6-4
C6-5
D3-1
Mill Creek
Mission Creek
SUMMIT DR.
HIGH RD.
MOUNTAIN AVE.
CLEMENT AVE.
BERNARD AVE.
HARVEY AVE.
SPRINGFIELD RD.
BURTCH RD.
GLENMORE DR.
GORDON DR.
SPALL RD.
COOPER RD.
DILWORTH DR.
HIGHWAY 97
322500 323000 323500 324000 324500 325000 325500 326000
5531500 5531000 5530500 5530000 5529500 5529000 5528500 5528000

Wetland Inventory

Map 'C-7'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

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Other
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Okanagan Lake

Map 'C-7'

C7-2

C7-1

C8-42

Facieux Creek

Facieux Creek - South Channel

CADDER AVE.

SPRINGFIELD RD.

ABBOTT

GORDON DR.

GUISACHAN RD.

ABBOTT ST.

PANDOSY ST.

RICHTER ST.

RAYMER AVE.

CEDAR AVE.

LAKESHORE RD.

CASORSO RD.

318500 319000 319500 320000 320500 321000 321500 322000 322500

5529000 5528500 5528000 5527500 5527000 5526500 5526000 5525500

Kilometers 0 1 2 4

'A-1' 'A-2' 'B-1' 'B-2'
'A-3' 'A-4' 'B-3' 'B-4'
'A-5' 'A-6' 'B-5' 'B-6'
'A-7' 'A-8' 'B-7' 'B-8'
'C-1' 'C-2' 'D-1' 'D-2'
'C-3' 'C-4' 'D-3' 'D-4'
'C-5' 'C-6' 'D-5' 'D-6'
'C-7' 'C-8' 'D-7' 'D-8'
'E-1' 'E-2' 'F-1' 'F-2' 'G-1' 'G-2'
'E-3' 'E-4' 'F-3' 'F-4' 'G-3' 'G-4'
'E-5' 'E-6' 'F-5' 'F-6' 'G-5' 'G-6'
'E-7' 'E-8' 'F-7' 'F-8' 'G-7' 'G-8'

A B C D E F G

Okanagan Lake

City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'C-8'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

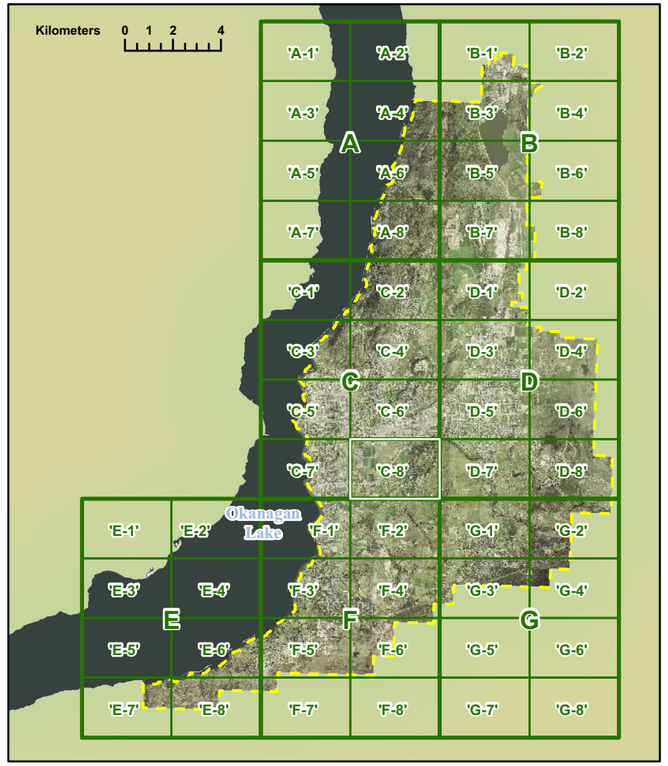
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada, Canada's Conservation Company · ECOSCAPE Environmental Consultants Ltd.

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

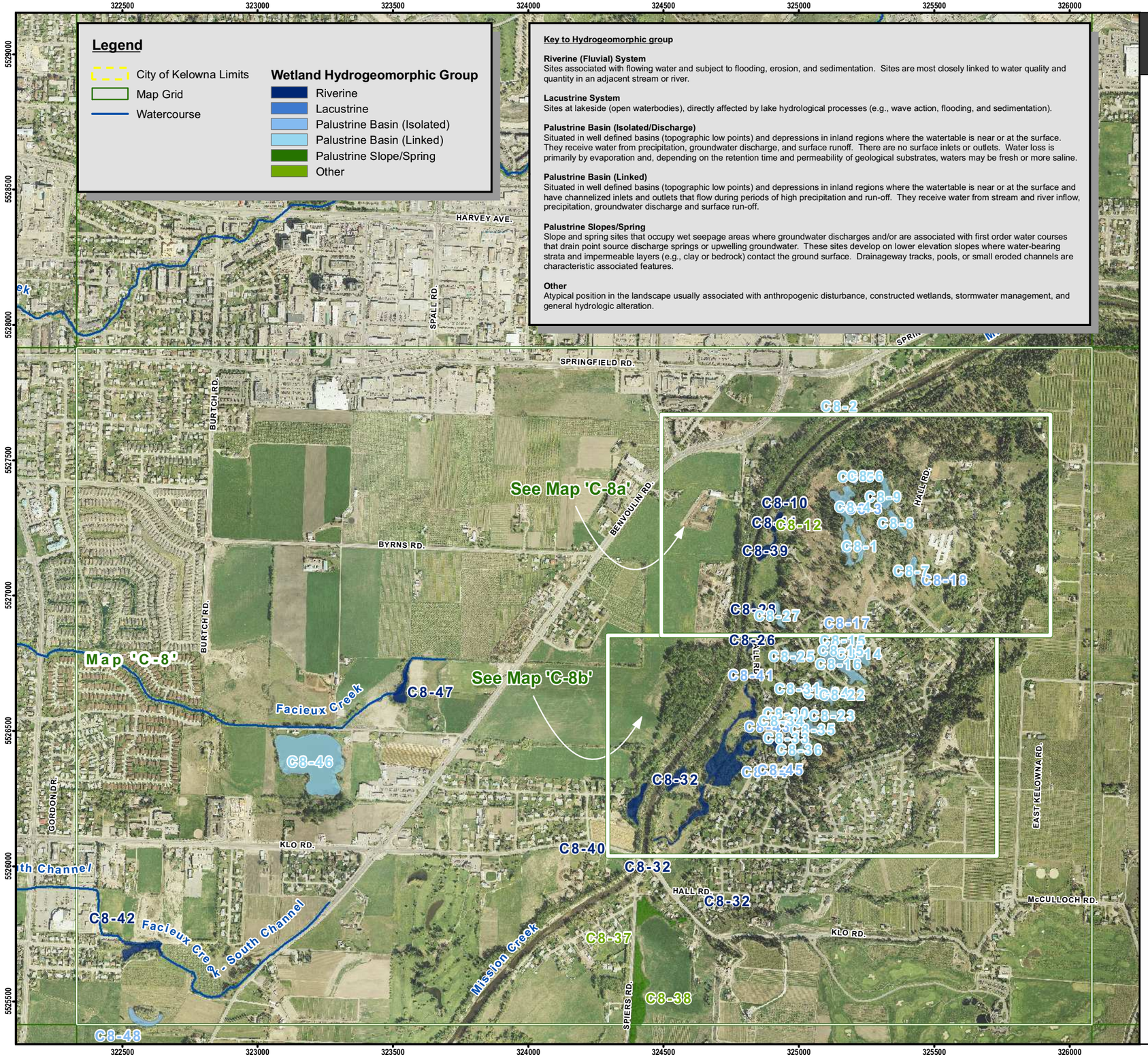
Lacustrine System
Sites at lakeside (open waterbodies), directly affected by lake hydrological processes (e.g., wave action, flooding, and sedimentation).

Palustrine Basin (Isolated/Discharge)
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface. They receive water from precipitation, groundwater discharge, and surface runoff. There are no surface inlets or outlets. Water loss is primarily by evaporation and, depending on the retention time and permeability of geological substrates, waters may be fresh or more saline.

Palustrine Basin (Linked)
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface and have channelized inlets and outlets that flow during periods of high precipitation and run-off. They receive water from stream and river inflow, precipitation, groundwater discharge and surface run-off.

Palustrine Slopes/Spring
Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.



Wetland Inventory

Map 'C-8a'

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

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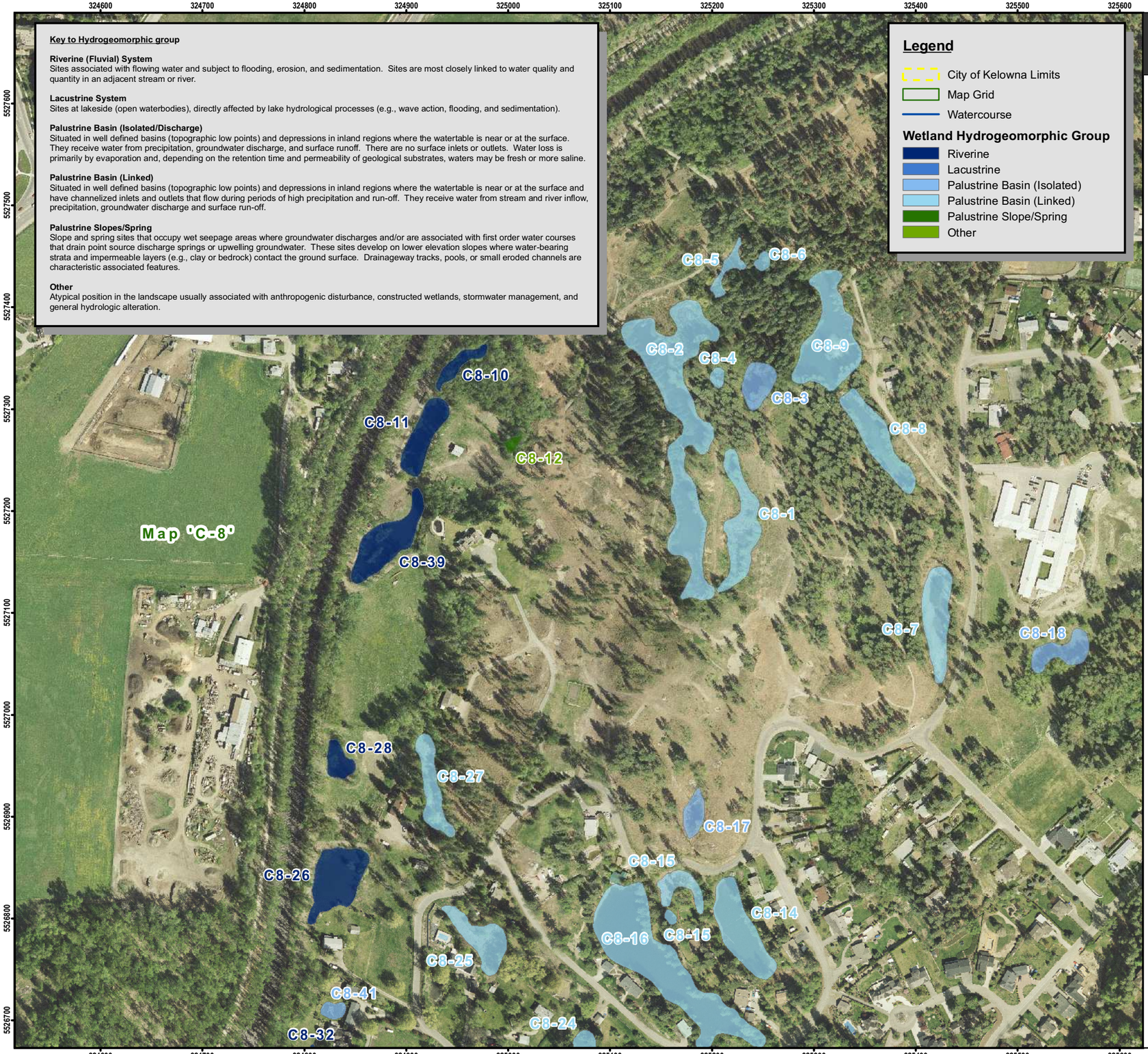
Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other



Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

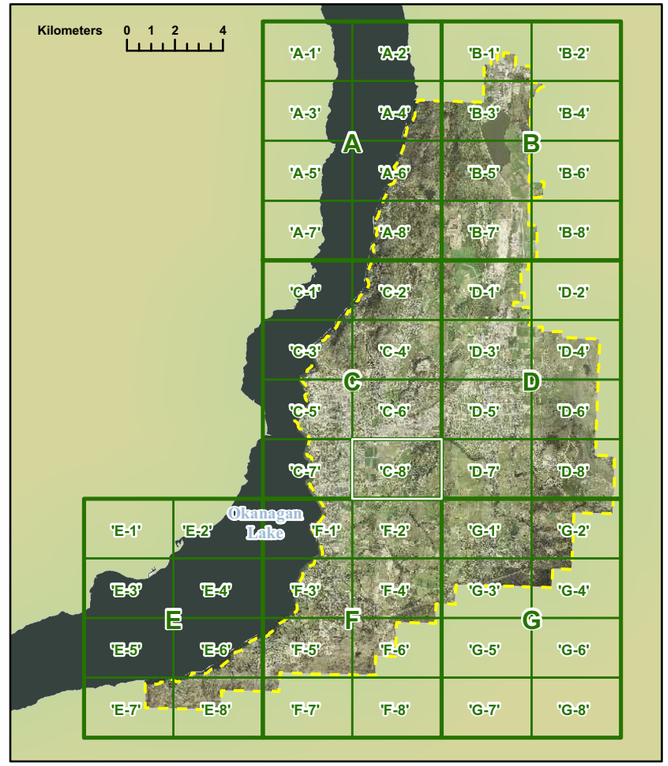
50 25 0 50 100 150 200 Meters

1:4,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'C-8b'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

50 25 0 50 100 150 200 Meters

1:4,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

Key to Hydrogeomorphic group

Riverine (Fluvial) System
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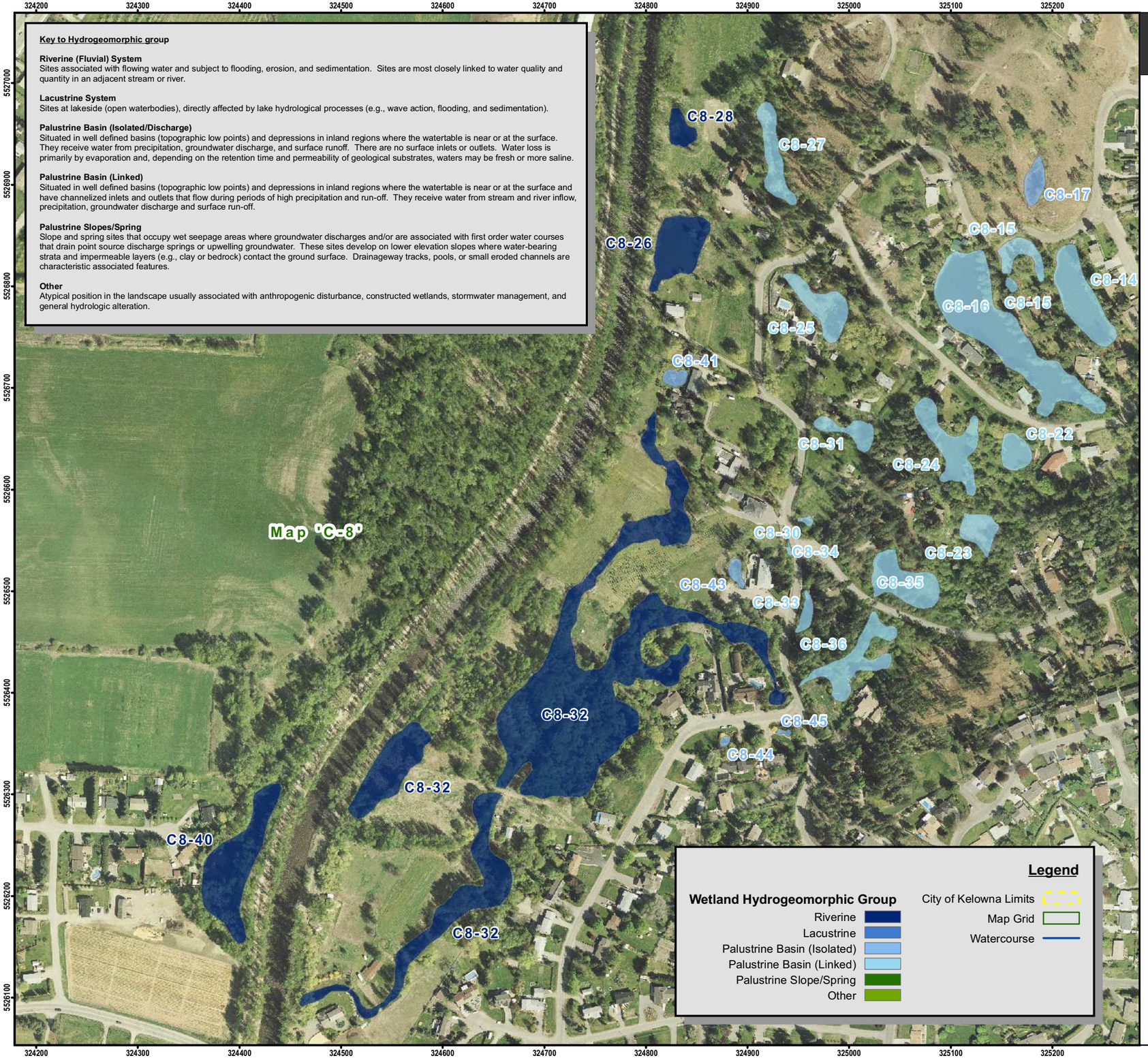
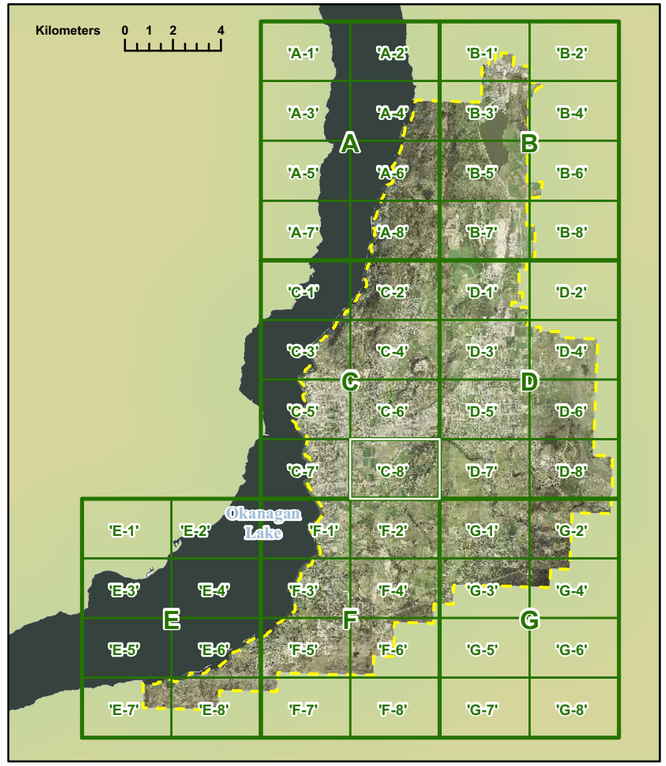
Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.





City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada, Canada's Conservation Company · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'D-1'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

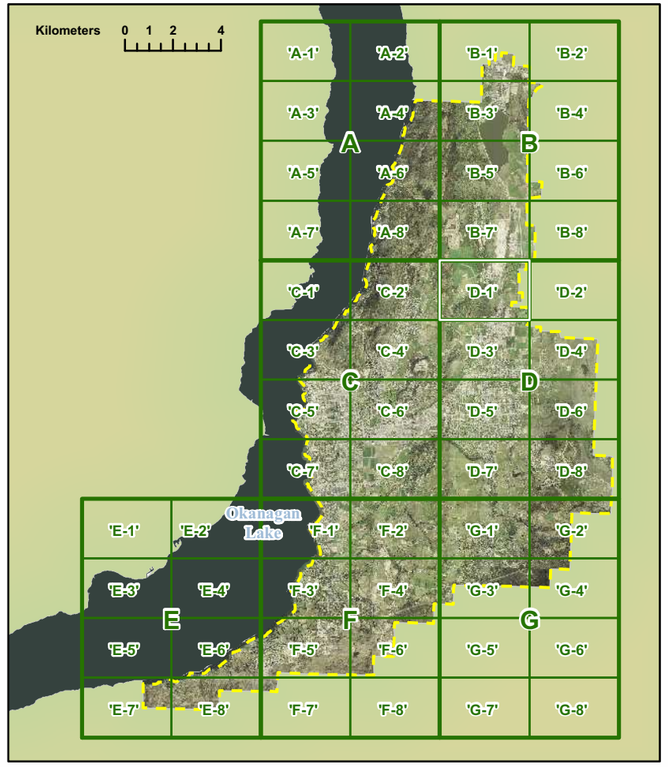
250 125 0 250 500 750 Meters

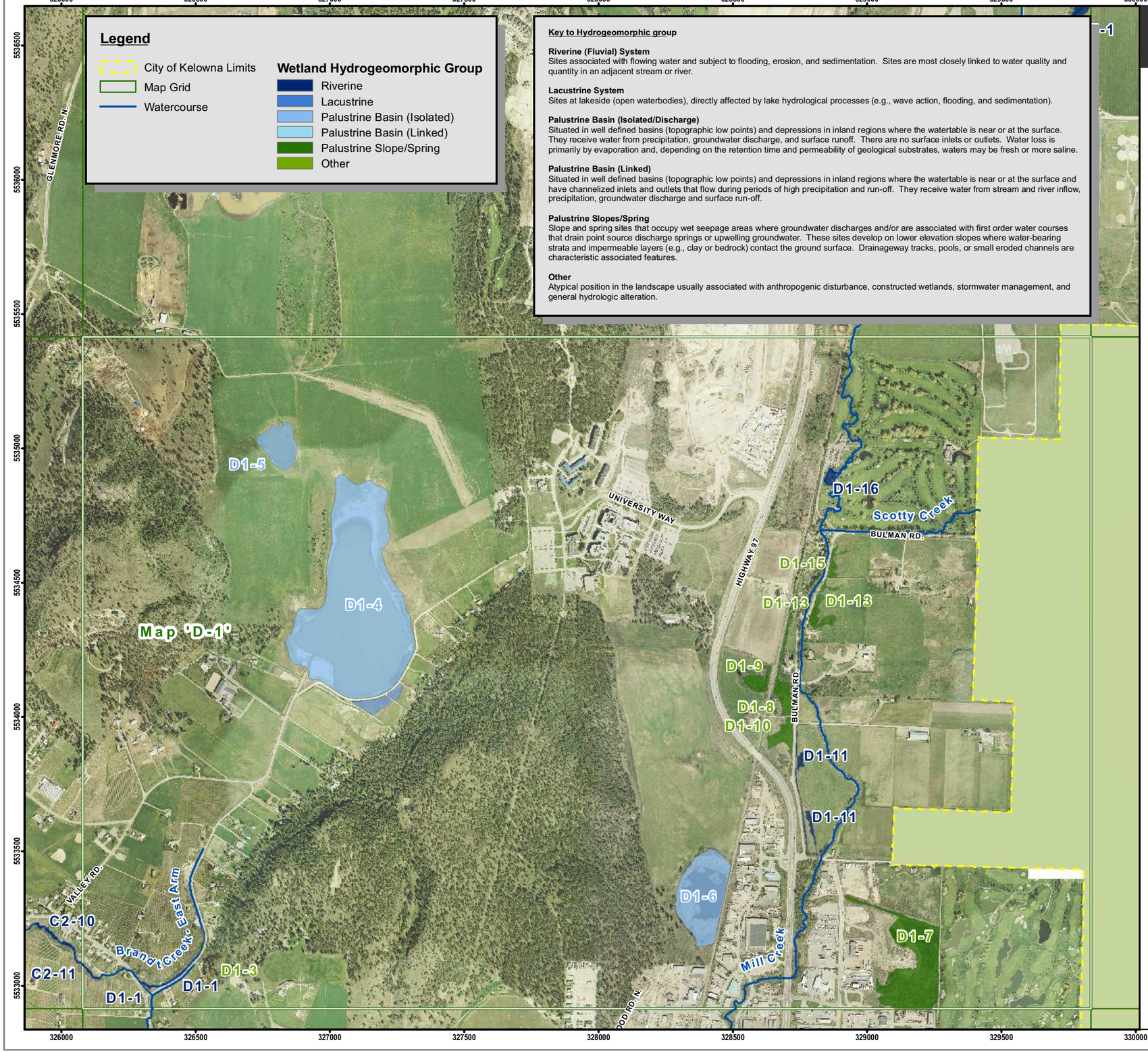
1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.093/82E.094 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner





City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada — Canada's Conservation Company · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'D-3'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.093/82E.094 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

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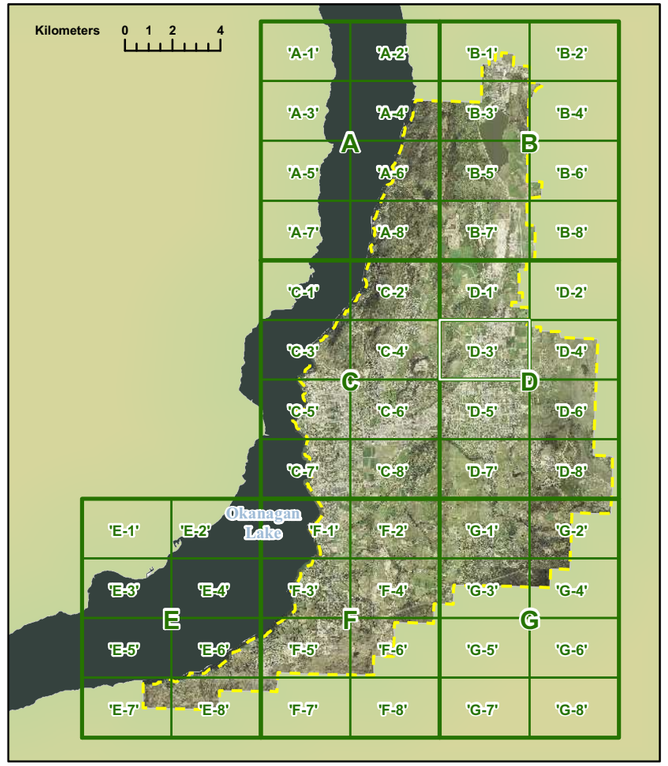
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface and have channelized inlets and outlets that flow during periods of high precipitation and run-off. They receive water from stream and river inflow, precipitation, groundwater discharge and surface run-off.

Palustrine Slopes/Spring
Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

Kilometers 0 1 2 4



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'D-4'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

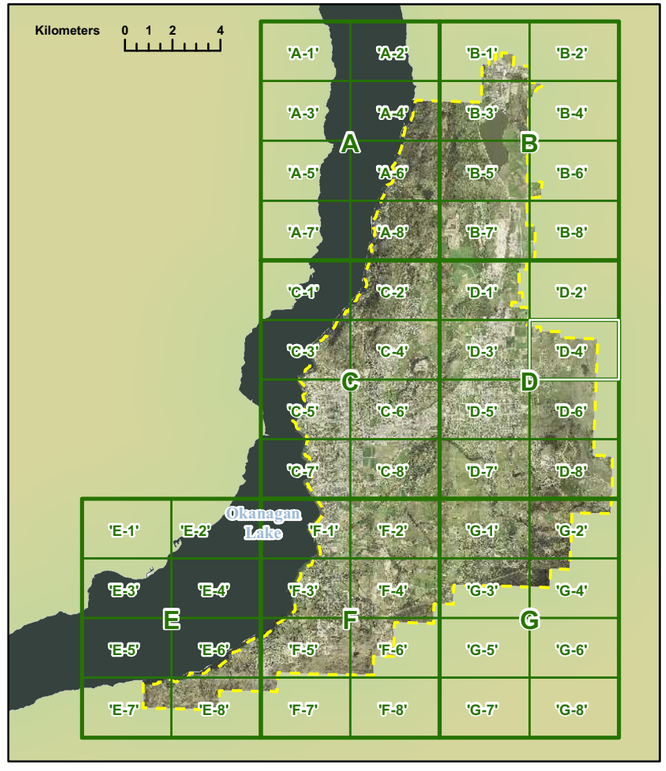
250 125 0 250 500 750 Meters

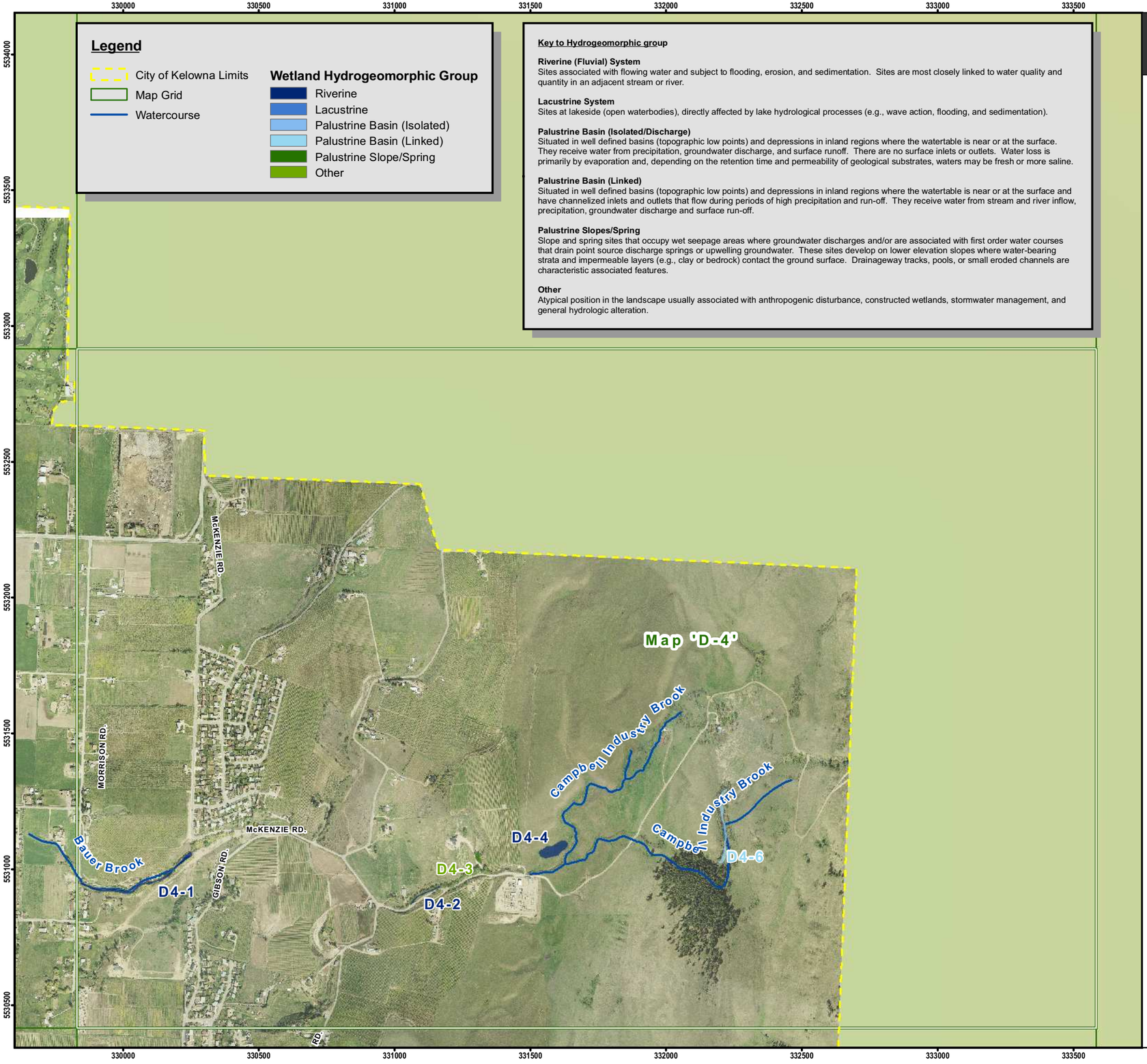
1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.094 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner





City of Kelowna · Okanagan Basin WATER BOARD · Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'D-5'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

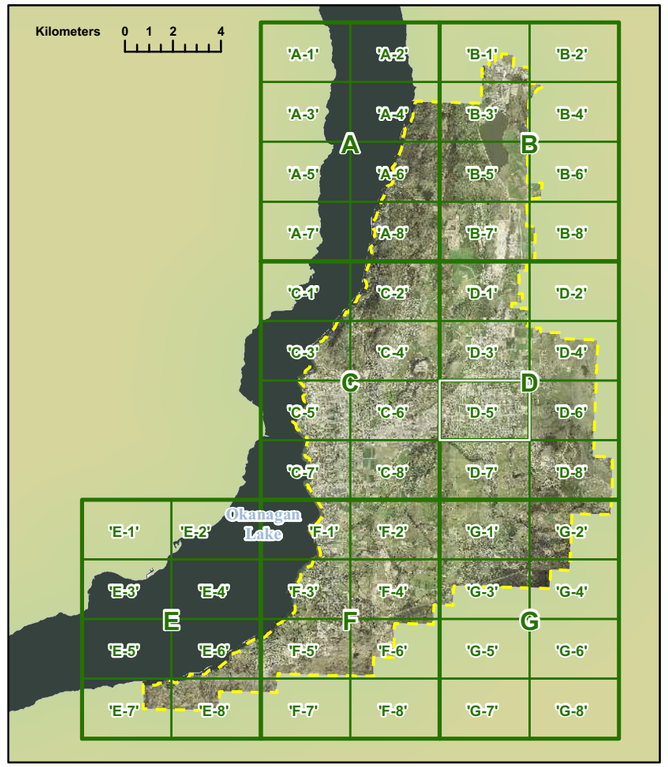
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083/82E.084 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada, Canada's Conservation Company · ECOSCAPE Environmental Consultants Ltd.

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

Lacustrine System
Sites at lakeside (open waterbodies), directly affected by lake hydrological processes (e.g., wave action, flooding, and sedimentation).

Palustrine Basin (Isolated/Discharge)
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface. They receive water from precipitation, groundwater discharge, and surface runoff. There are no surface inlets or outlets. Water loss is primarily by evaporation and, depending on the retention time and permeability of geological substrates, waters may be fresh or more saline.

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Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface and have channelized inlets and outlets that flow during periods of high precipitation and run-off. They receive water from stream and river inflow, precipitation, groundwater discharge and surface run-off.

Palustrine Slopes/Spring
Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

Wetland Inventory

Map 'D-6'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

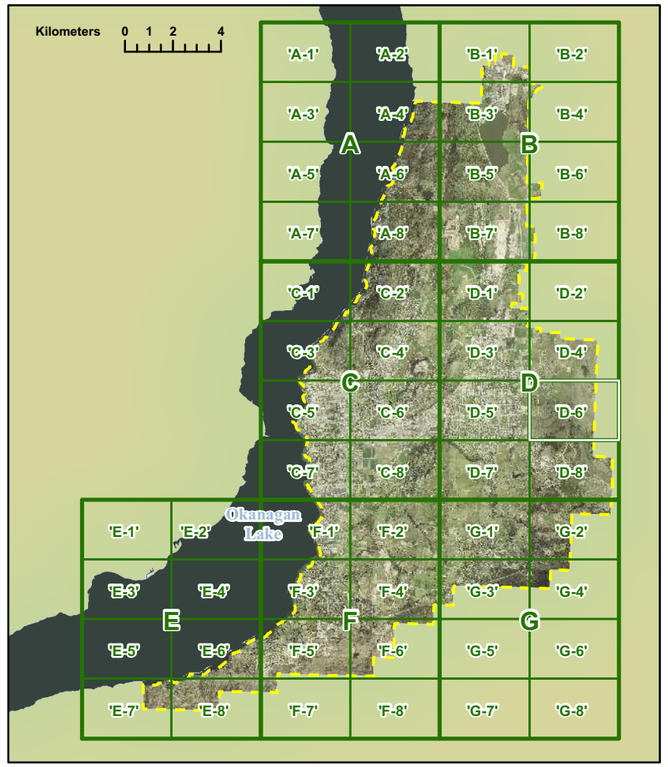
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.084 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada, Canada's Conservation Company · ECOSCAPE Environmental Consultants Ltd.

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

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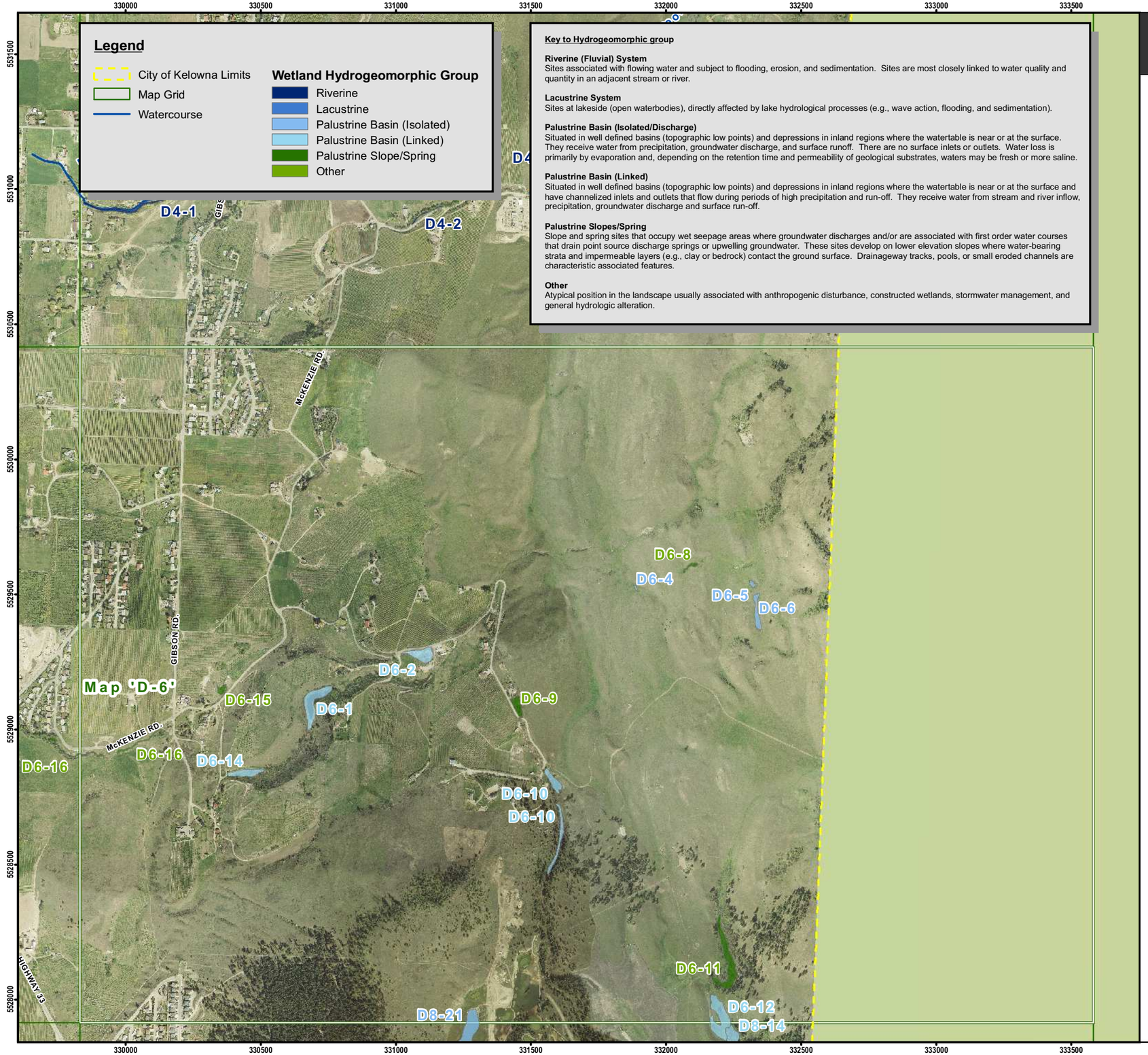
Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.



Wetland Inventory

Map 'D-7'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

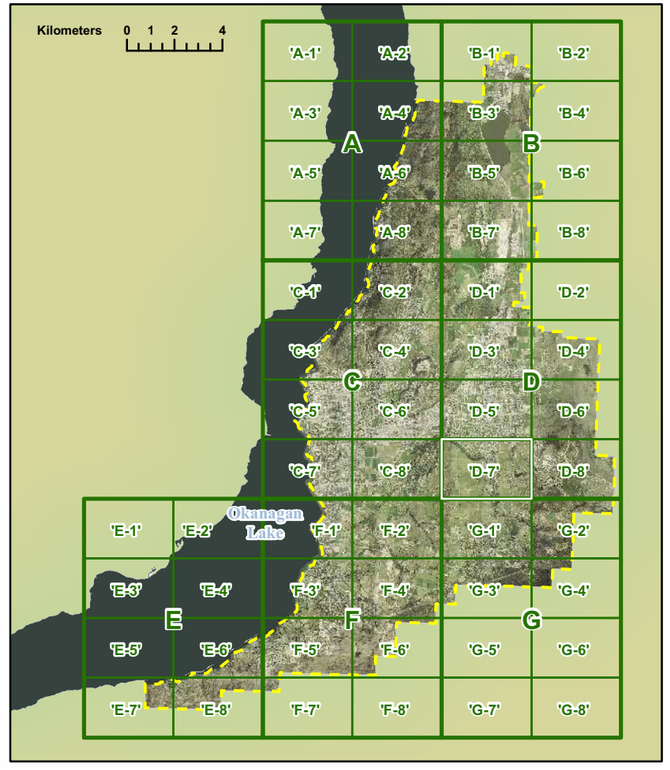
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083/82E.084 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada · ECOSCAPE Environmental Consultants Ltd.

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

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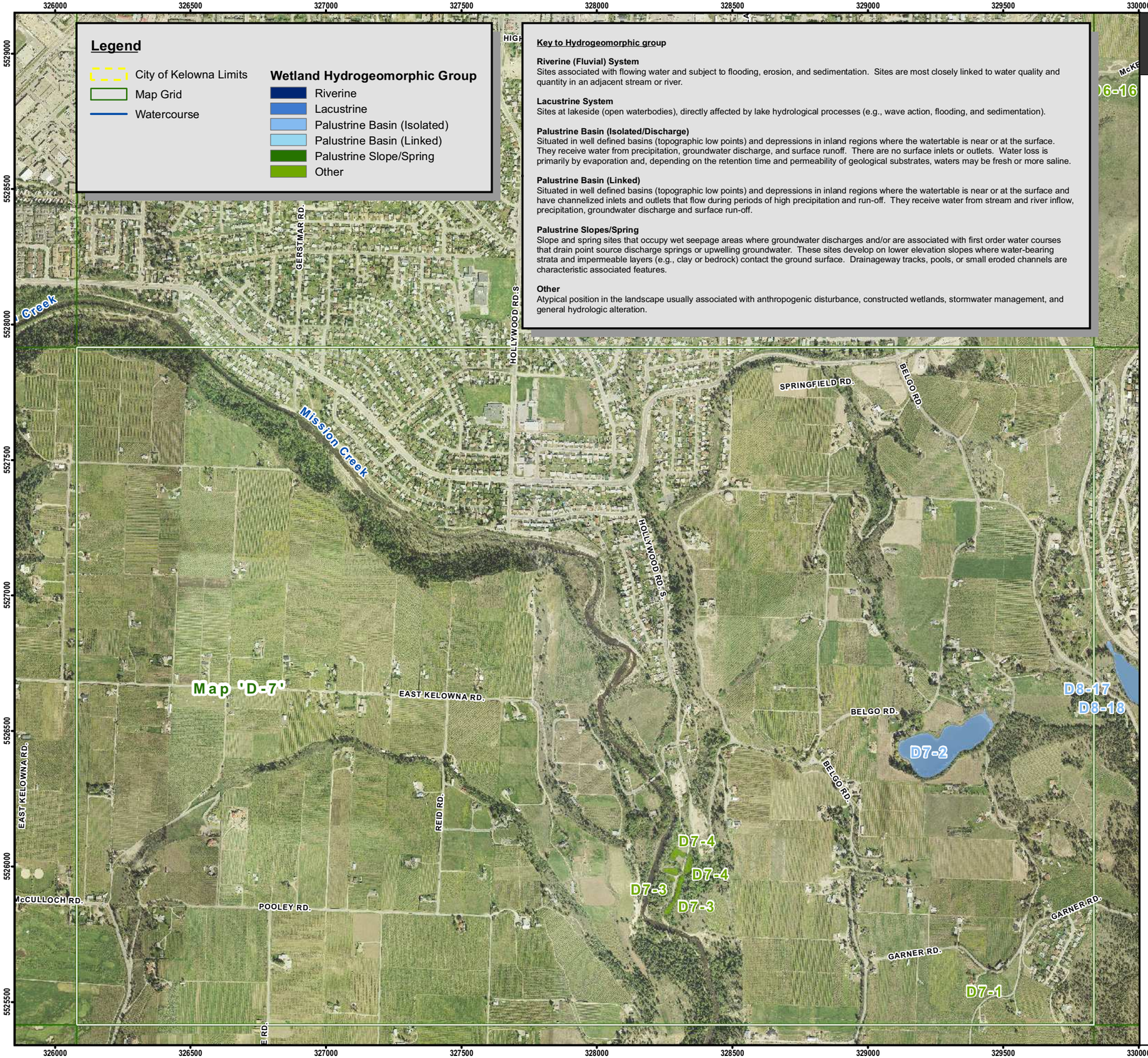
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface and have channelized inlets and outlets that flow during periods of high precipitation and run-off. They receive water from stream and river inflow, precipitation, groundwater discharge and surface run-off.

Palustrine Slopes/Spring
Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.



Wetland Inventory

Map 'D-8'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

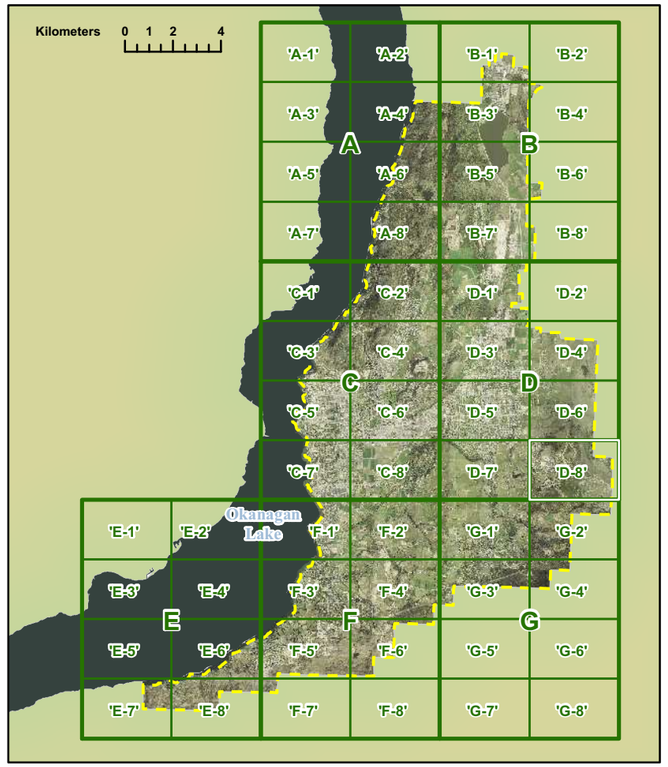
250 125 0 250 500 750 Meters

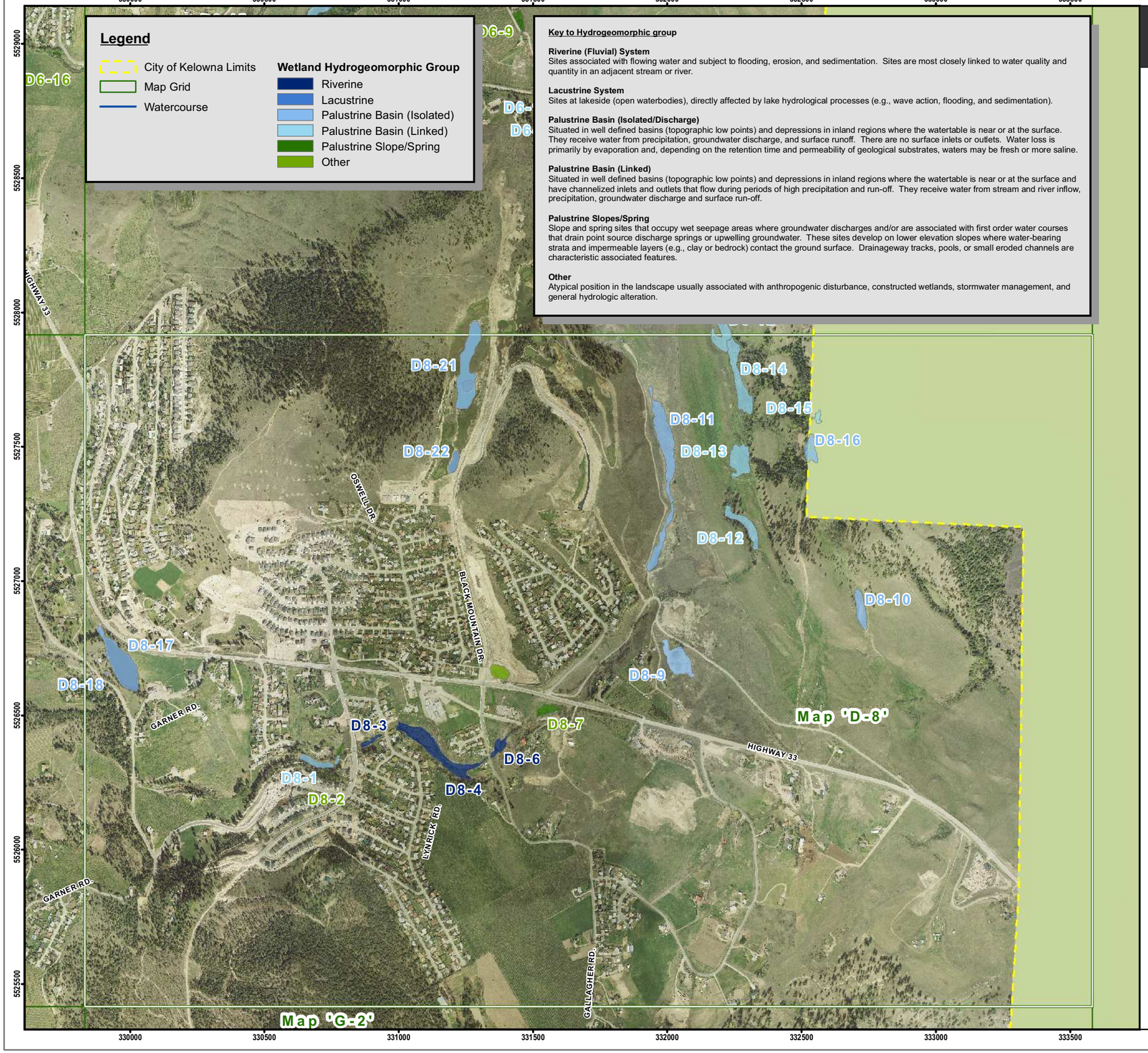
1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.084 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner





City of Kelowna · Okanagan Basin WATER BOARD · Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'E-6'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

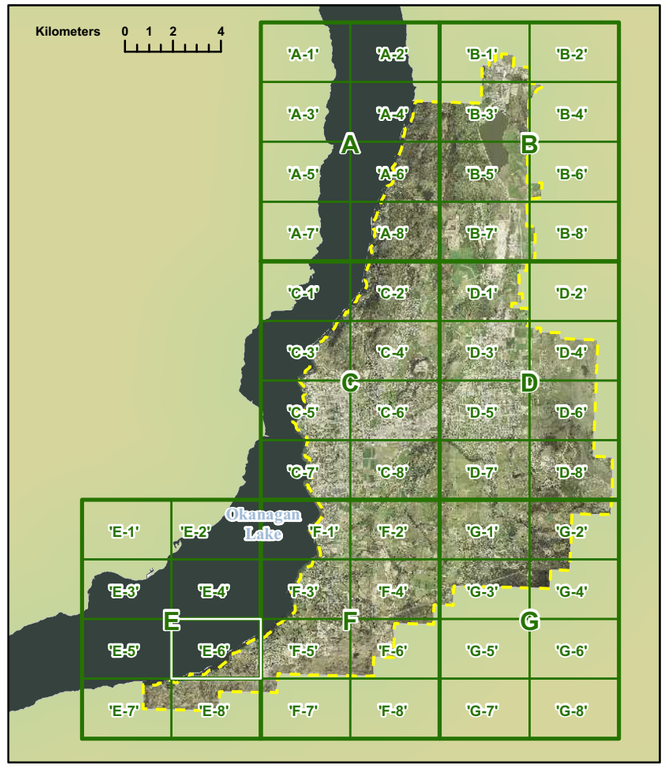
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.073/82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

Lacustrine System
Sites at lakeside (open waterbodies), directly affected by lake hydrological processes (e.g., wave action, flooding, and sedimentation).

Palustrine Basin (Isolated/Discharge)
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface. They receive water from precipitation, groundwater discharge, and surface runoff. There are no surface inlets or outlets. Water loss is primarily by evaporation and, depending on the retention time and permeability of geological substrates, waters may be fresh or more saline.

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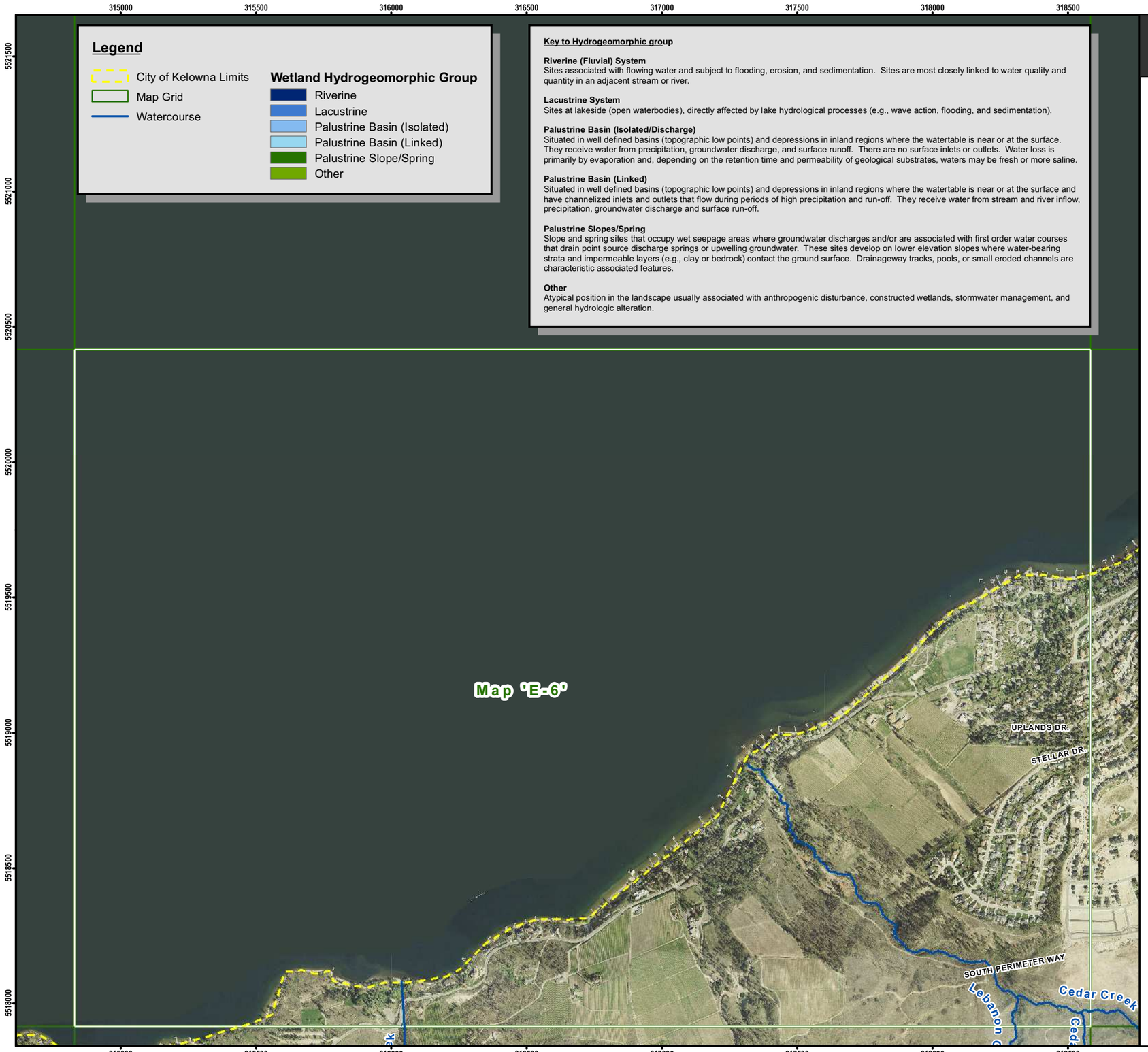
Palustrine Slopes/Spring
Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.



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311000 311500 312000 312500 313000 313500 314000 314500 315000

5519000 5518500 5518000 5517500 5517000 5516500 5516000 5515500

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

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Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

Map 'E-7'

Wetland Inventory

Map 'E-7'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

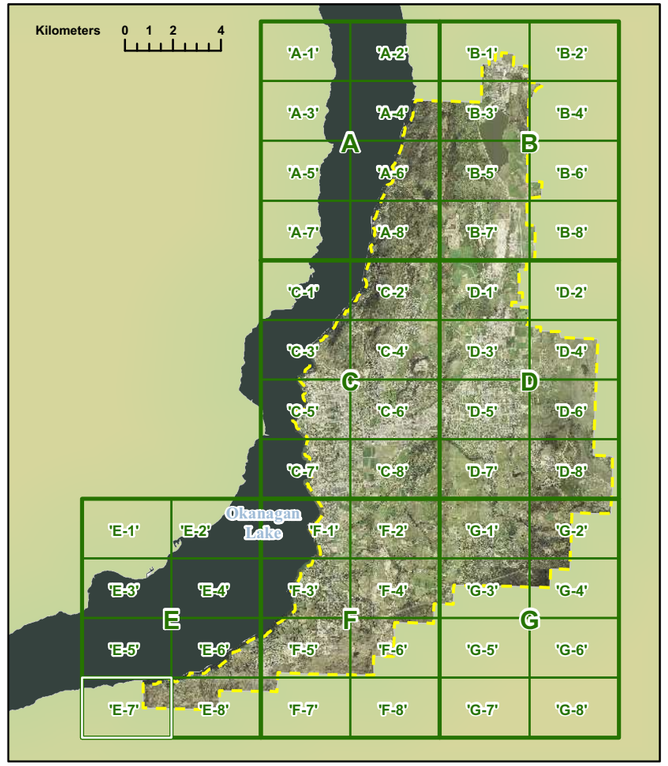
250 125 0 250 500 750 Meters

1:15,000

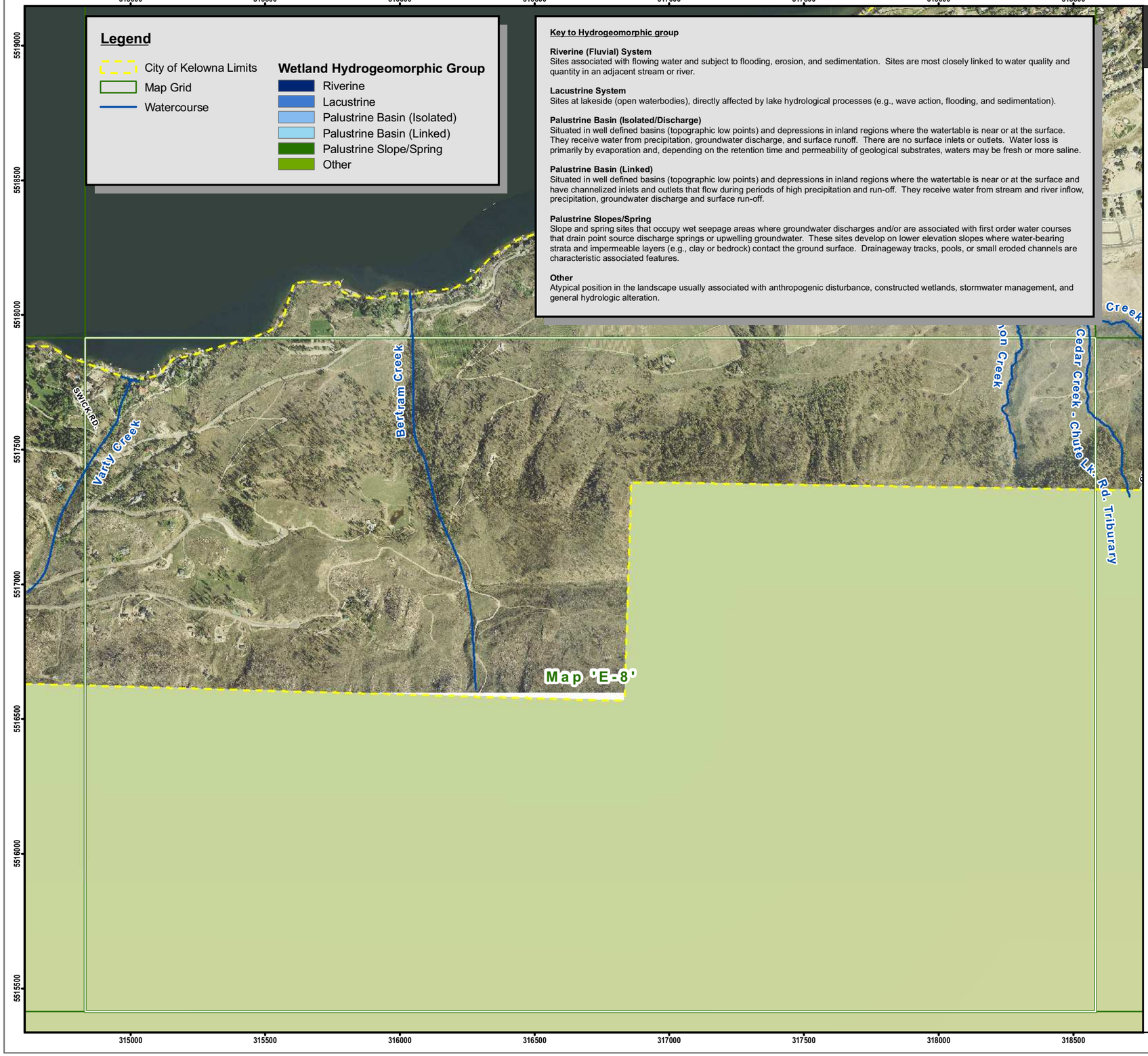
N W E S

SOURCE INFORMATION

Base Map:	82E.072/82E.073 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada, Canada's Conservation Company · Ecoscape Environmental Consultants Ltd.



Wetland Inventory

Map 'E-8'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

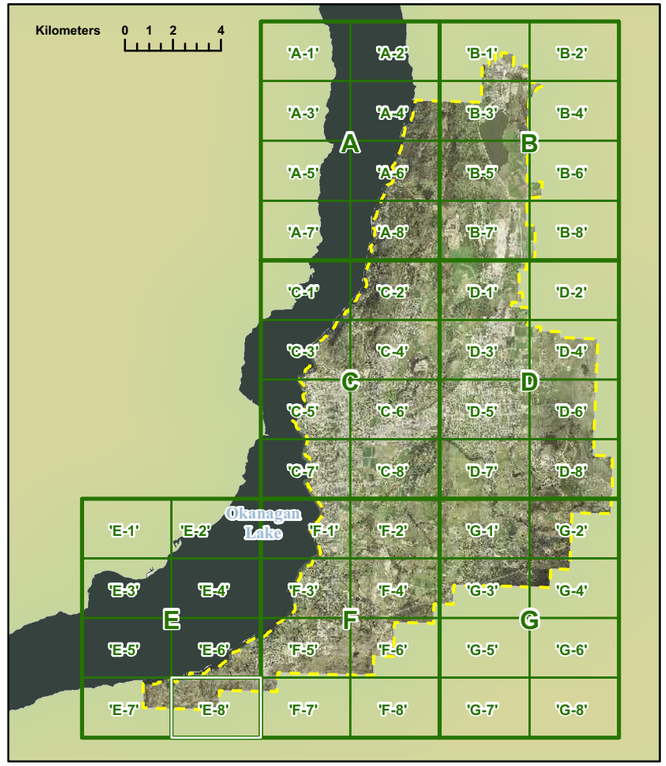
250 125 0 250 500 750 Meters

1:15,000

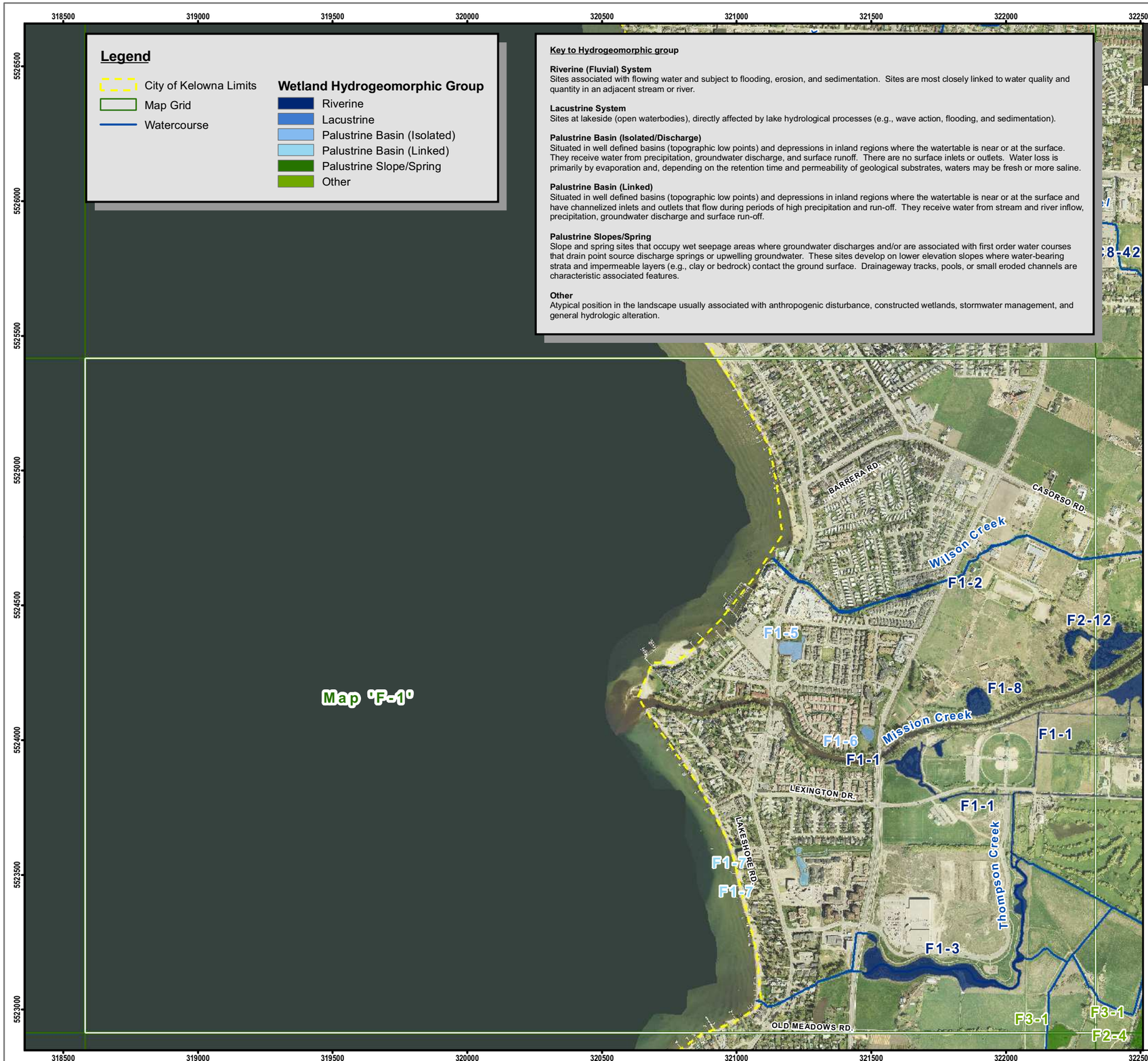
N W E S

SOURCE INFORMATION

Base Map:	82E.073 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada · ECOSCAPE Environmental Consultants Ltd.



Wetland Inventory

Map 'F-1'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

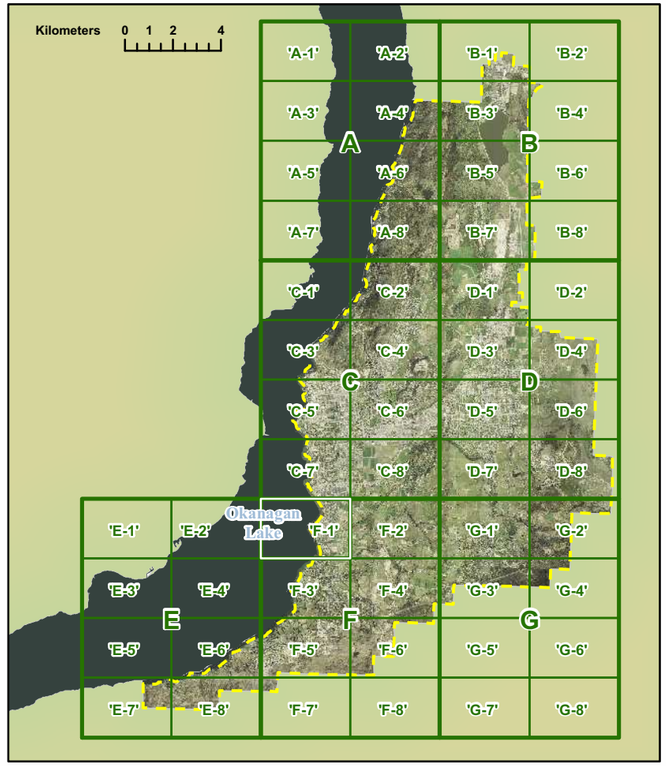
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna

Okanagan Basin WATER BOARD

Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY

ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'F-2'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

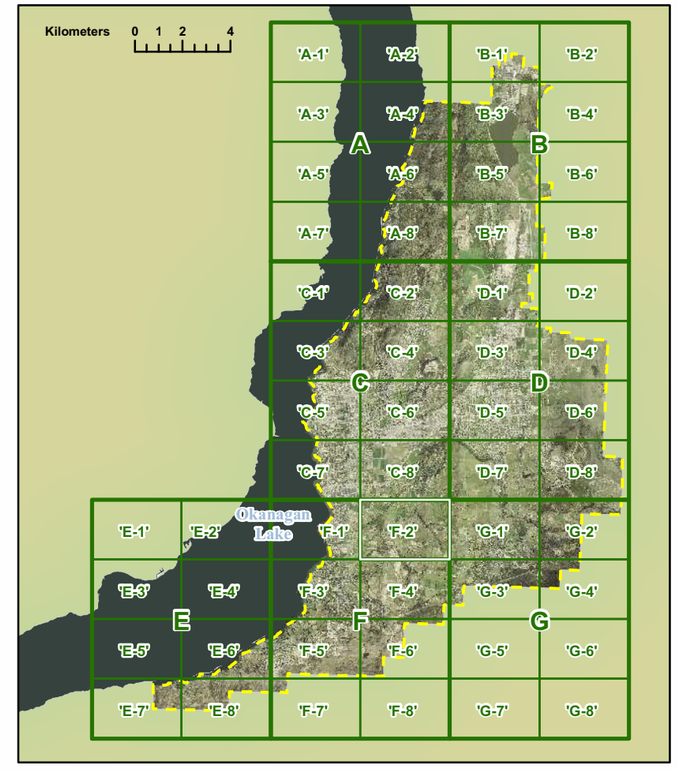
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada — Canada's Conservation Company · ECOSCAPE Environmental Consultants Ltd.

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

Lacustrine System
Sites at lakeside (open waterbodies), directly affected by lake hydrological processes (e.g., wave action, flooding, and sedimentation).

Palustrine Basin (Isolated/Discharge)
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface. They receive water from precipitation, groundwater discharge, and surface runoff. There are no surface inlets or outlets. Water loss is primarily by evaporation and, depending on the retention time and permeability of geological substrates, waters may be fresh or more saline.

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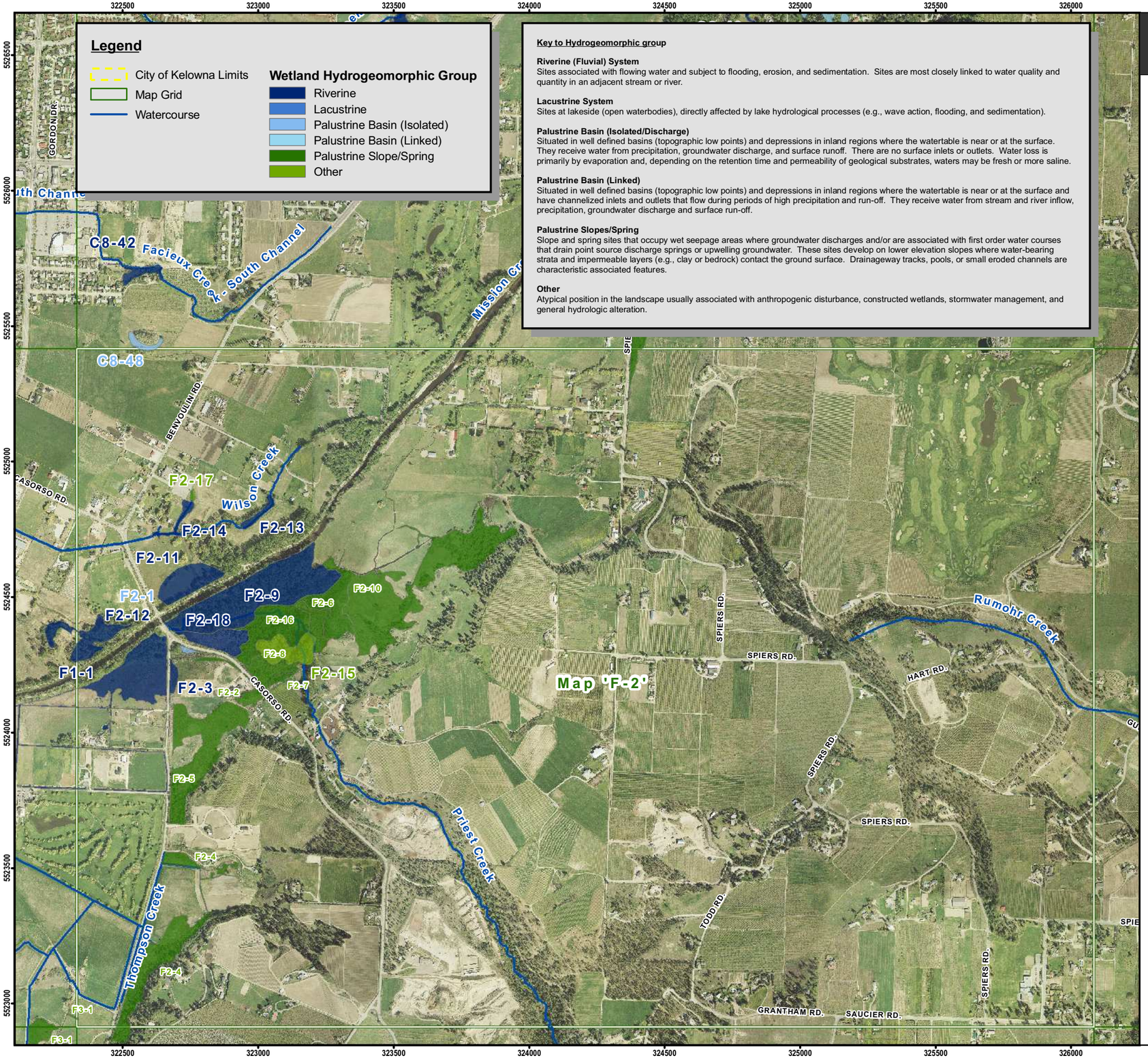
Palustrine Slopes/Spring
Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.



Wetland Inventory

Map 'F-3'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

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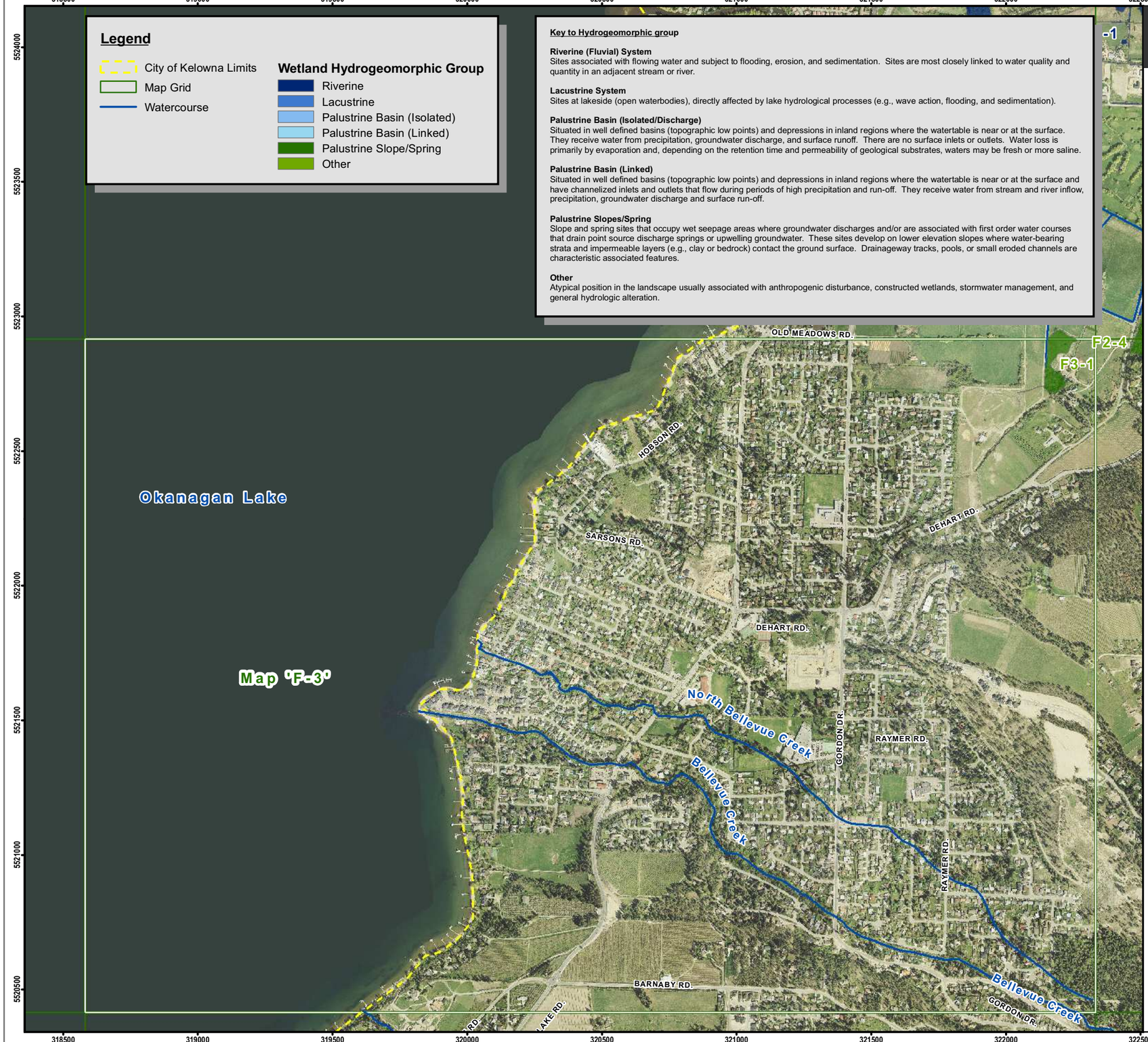
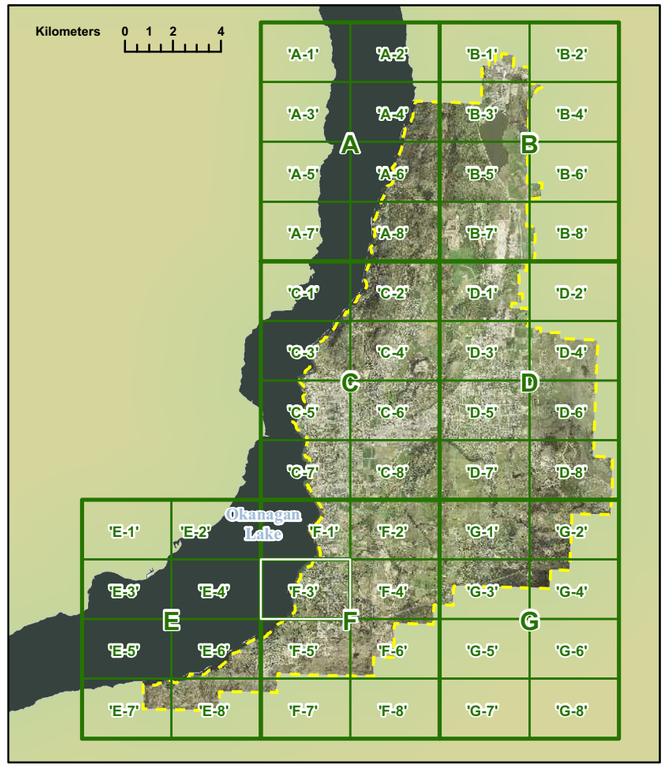
Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.





City of Kelowna · Okanagan Basin WATER BOARD · Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'F-4'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

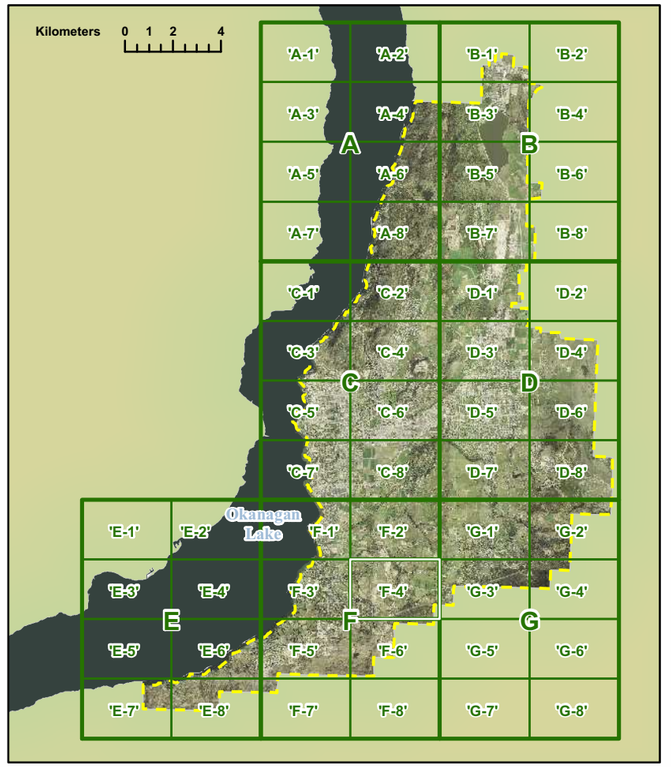
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

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City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada · ECOSCAPE Environmental Consultants Ltd.

Wetland Inventory

Map 'F-5'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.073/82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner

Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

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Other
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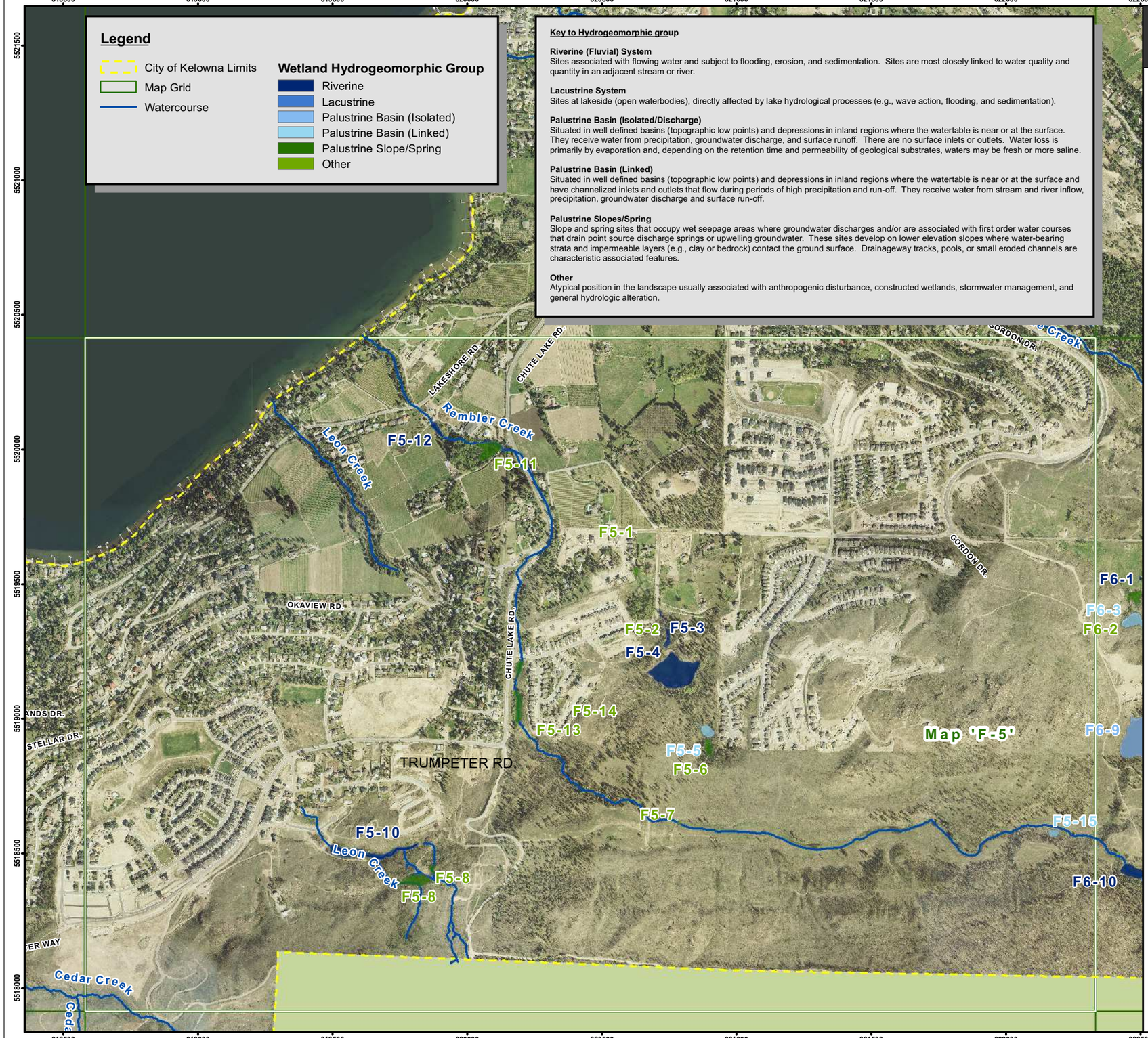
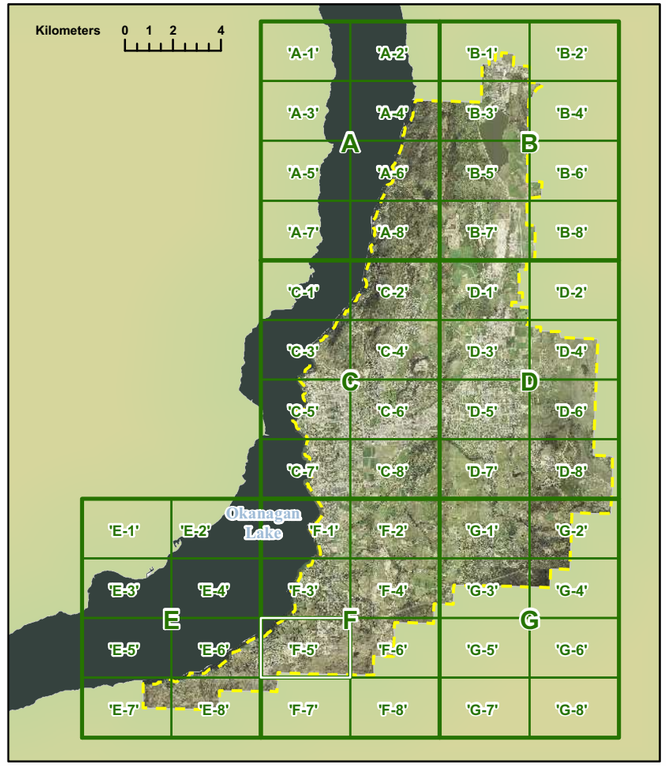


Kilometers 0 1 2 4



City of Kelowna · Okanagan Basin Water Board · Ducks Unlimited Canada, Canada's Conservation Company · Ecoscape Environmental Consultants Ltd.

322500 323000 323500 324000 324500 325000 325500 326000

5521500 5521000 5520500 5520000 5519500 5519000 5518500 5518000

Legend

City of Kelowna Limits
Map Grid
Watercourse

Wetland Hydrogeomorphic Group

Riverine
Lacustrine
Palustrine Basin (Isolated)
Palustrine Basin (Linked)
Palustrine Slope/Spring
Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

Lacustrine System
Sites at lakeside (open waterbodies), directly affected by lake hydrological processes (e.g., wave action, flooding, and sedimentation).

Palustrine Basin (Isolated/Discharge)
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface. They receive water from precipitation, groundwater discharge, and surface runoff. There are no surface inlets or outlets. Water loss is primarily by evaporation and, depending on the retention time and permeability of geological substrates, waters may be fresh or more saline.

Palustrine Basin (Linked)
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface and have channelized inlets and outlets that flow during periods of high precipitation and run-off. They receive water from stream and river inflow, precipitation, groundwater discharge and surface run-off.

Palustrine Slopes/Spring
Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

WESTRIDGE DR.
WESTRIDGE DR.
STEWART RD. W.
e Creek
Bellevue Creek
F6-1
F6-2
F6-3
F6-4
F6-5
F6-6
F6-7
F6-8
F6-9
F6-10
F5-15
Rembler Creek
Map 'F-6'

Wetland Inventory

Map 'F-6'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

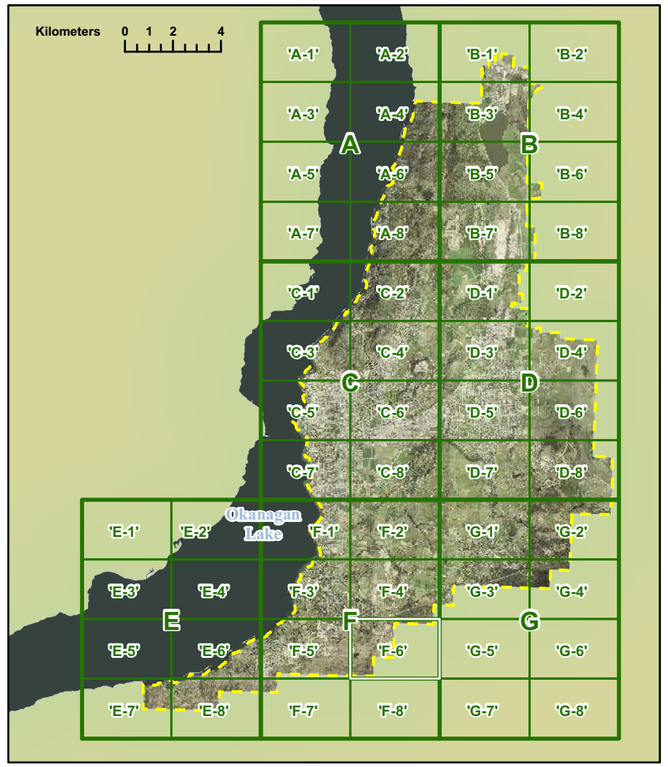
250 125 0 250 500 750 Meters

1:15,000

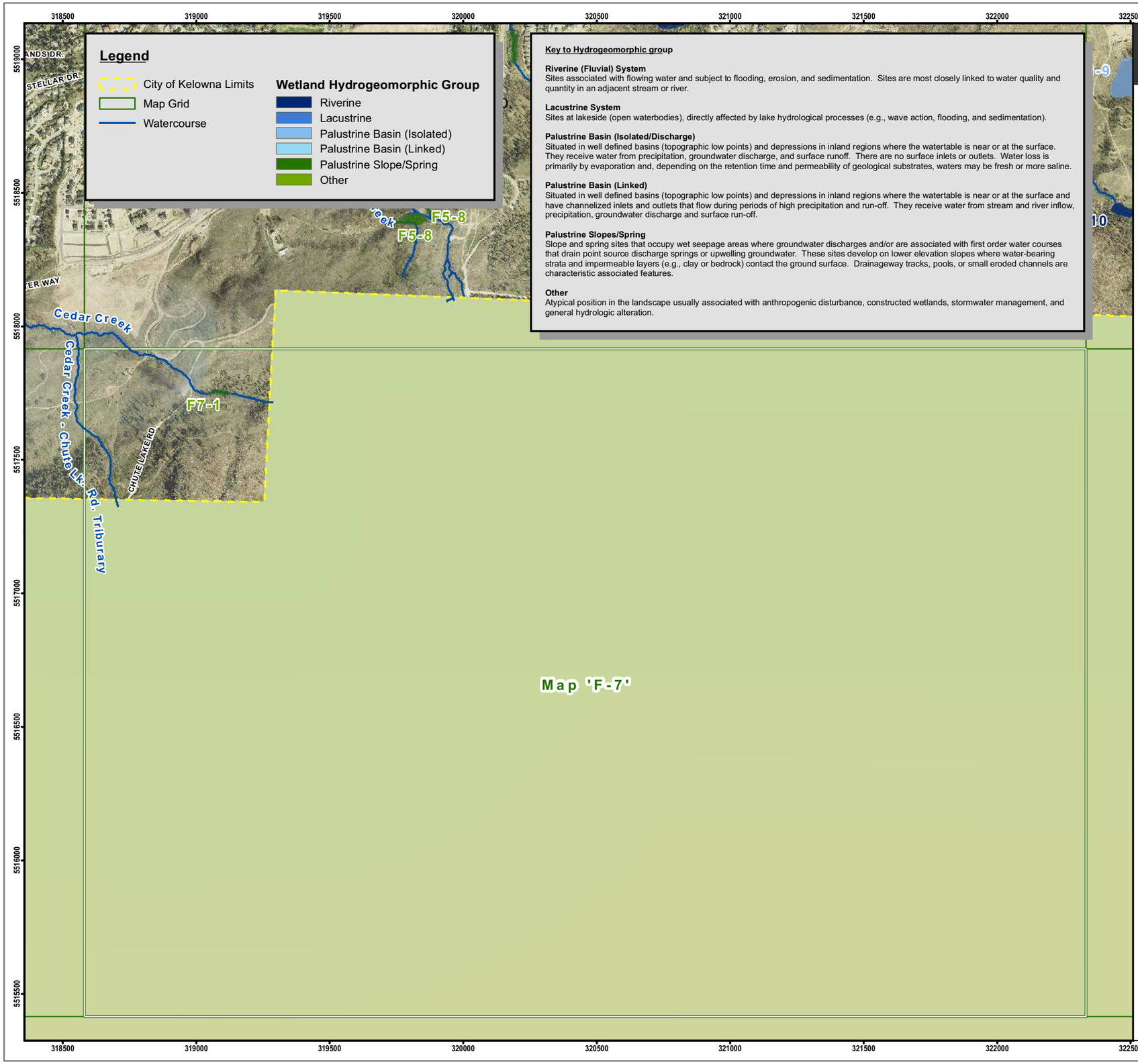
N W E S

SOURCE INFORMATION

Base Map:	82E.073/82E.083 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna
Okanagan Basin WATER BOARD
Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY
ECOSCAPE Environmental Consultants Ltd



Wetland Inventory

Map 'F-7'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

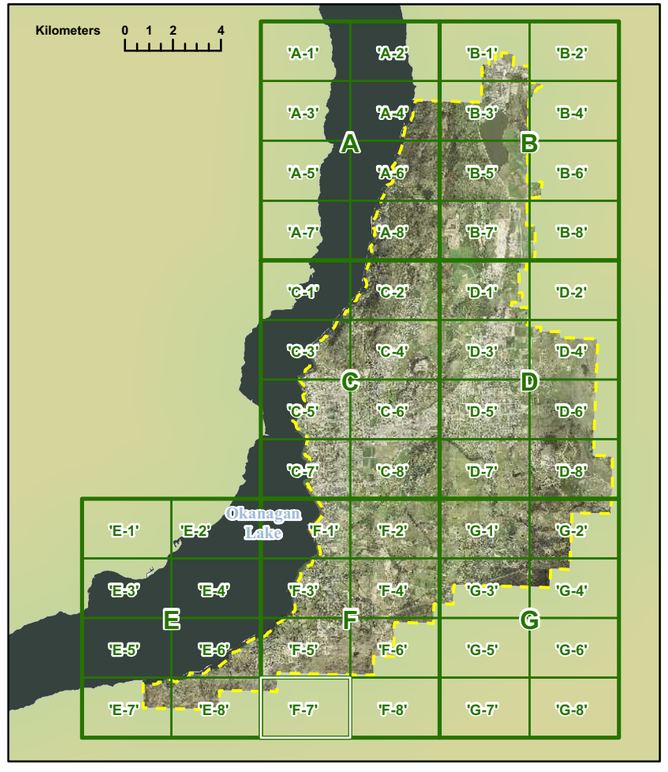
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.073 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



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Wetland Inventory

Map 'G-1'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

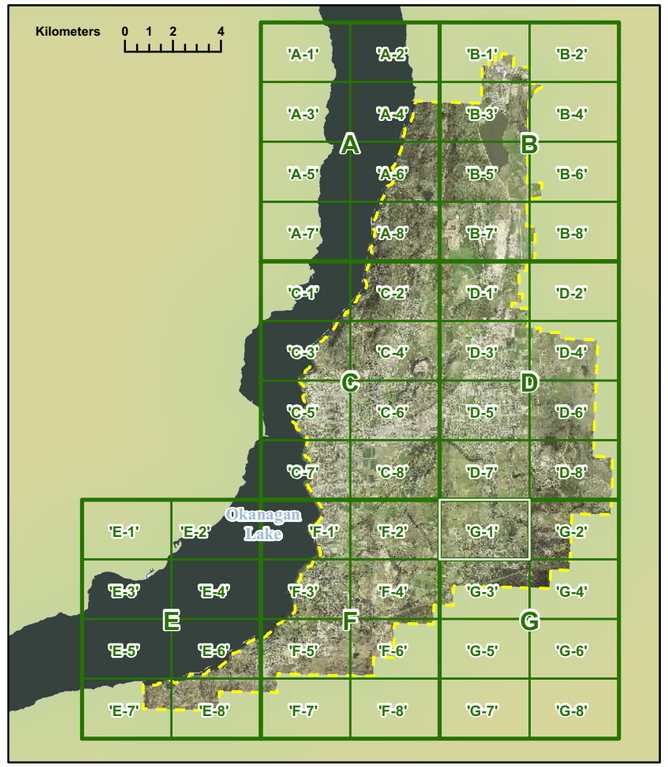
250 125 0 250 500 750 Meters

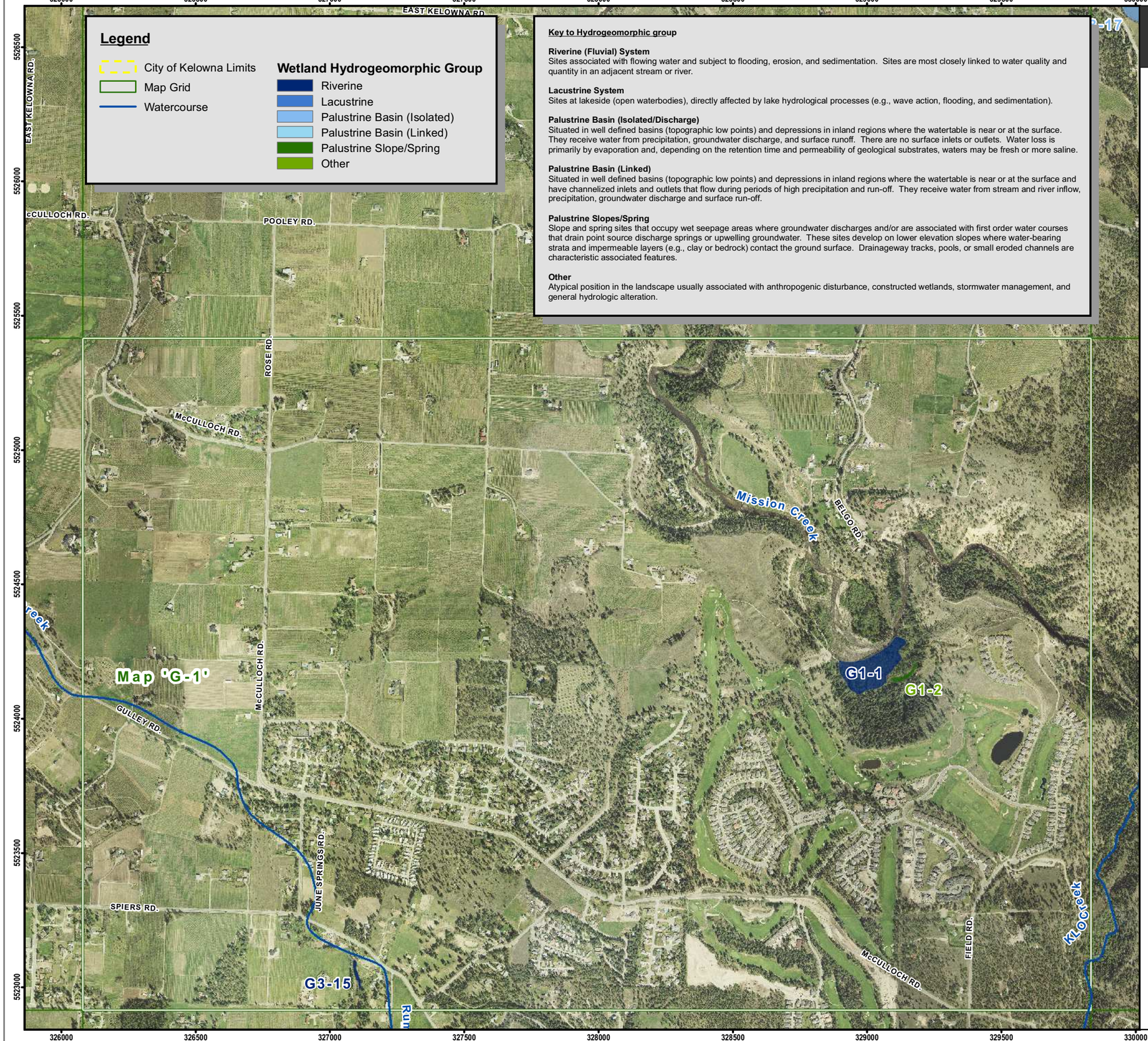
1:15,000

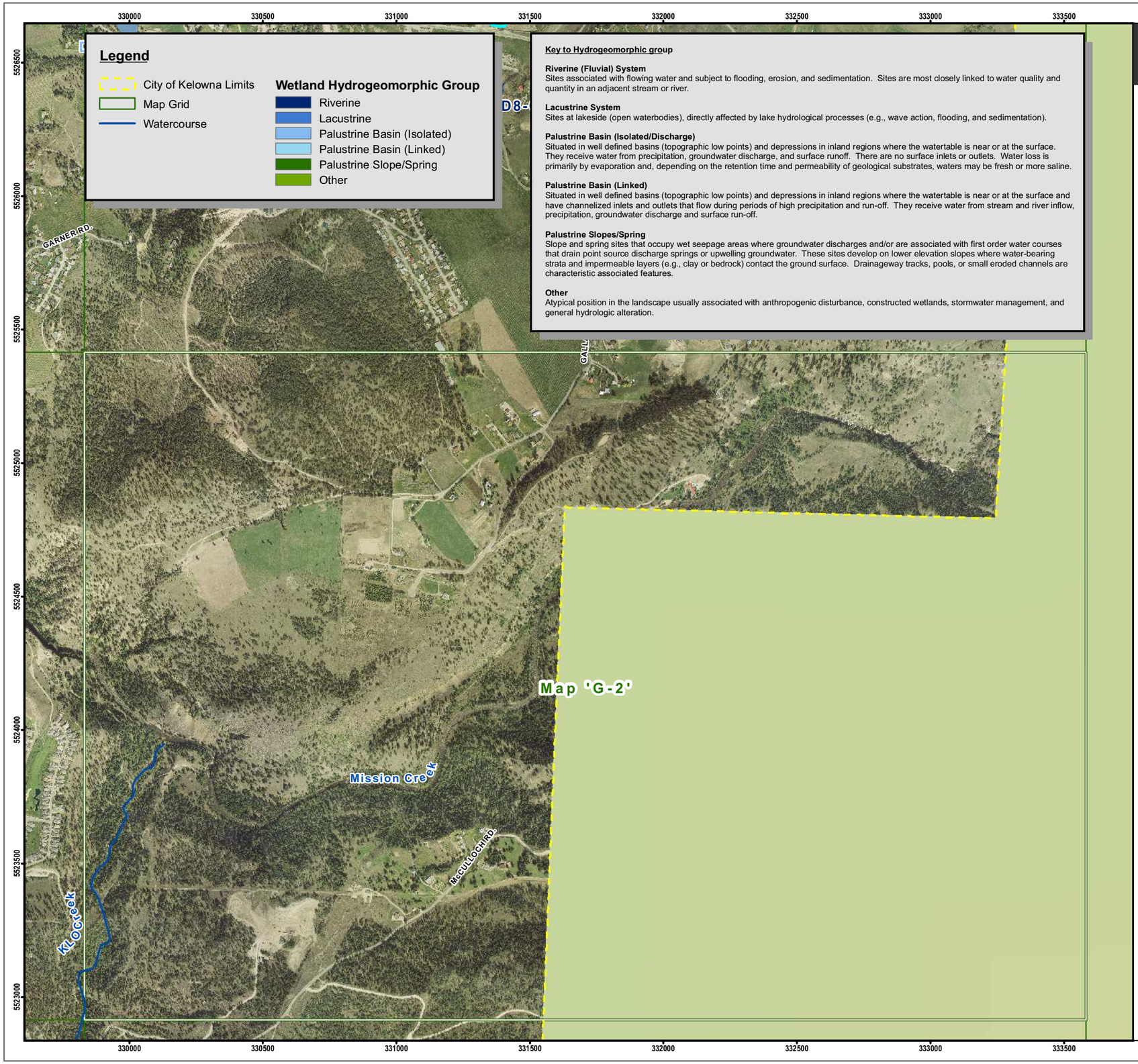
N W E S

SOURCE INFORMATION

Base Map:	82E.083/82E.084 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner







Wetland Inventory

Map 'G-2'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

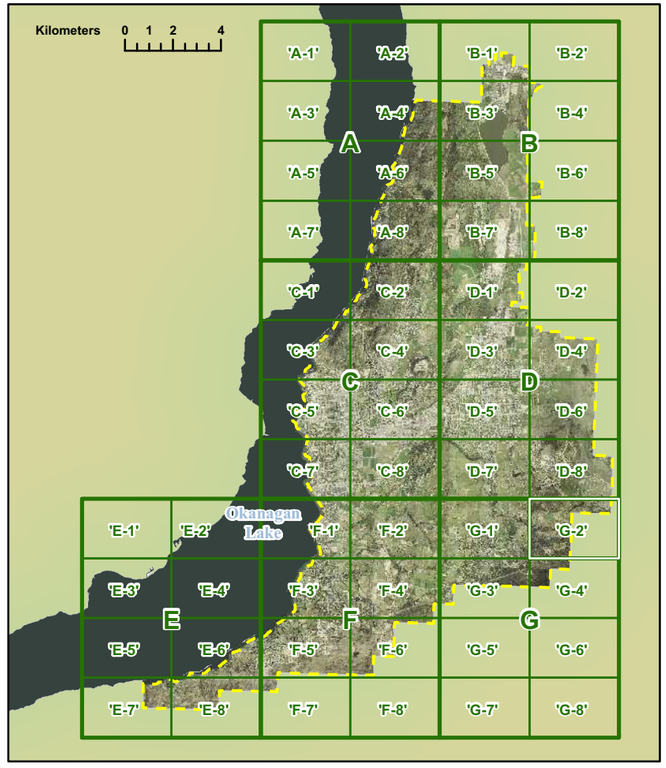
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.084 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



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Wetland Inventory

Map 'G-3'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

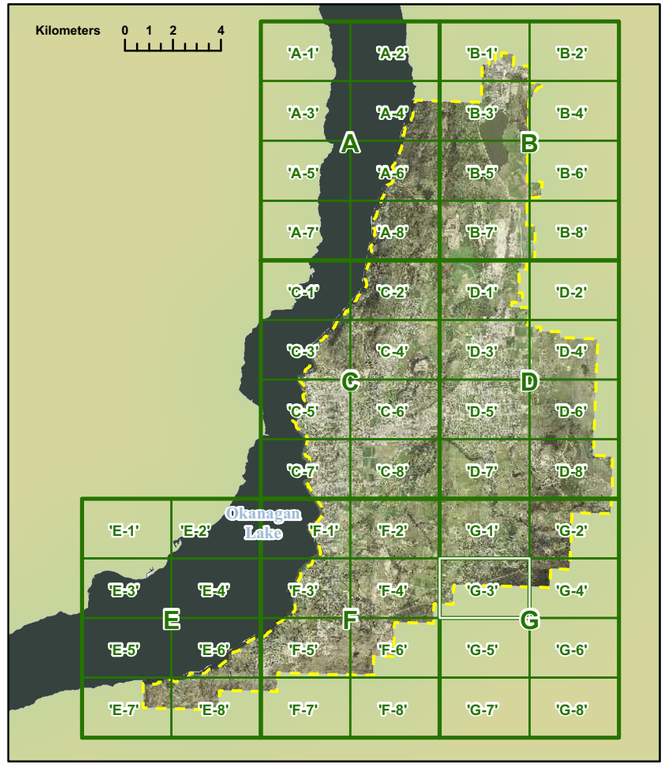
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.083/82E.084 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



Legend

- City of Kelowna Limits
- Map Grid
- Watercourse

Wetland Hydrogeomorphic Group

- Riverine
- Lacustrine
- Palustrine Basin (Isolated)
- Palustrine Basin (Linked)
- Palustrine Slope/Spring
- Other

Key to Hydrogeomorphic group

Riverine (Fluvial) System
Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

Lacustrine System
Sites at lakeside (open waterbodies), directly affected by lake hydrological processes (e.g., wave action, flooding, and sedimentation).

Palustrine Basin (Isolated/Discharge)
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface. They receive water from precipitation, groundwater discharge, and surface runoff. There are no surface inlets or outlets. Water loss is primarily by evaporation and, depending on the retention time and permeability of geological substrates, waters may be fresh or more saline.

Palustrine Basin (Linked)
Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface and have channelized inlets and outlets that flow during periods of high precipitation and run-off. They receive water from stream and river inflow, precipitation, groundwater discharge and surface run-off.

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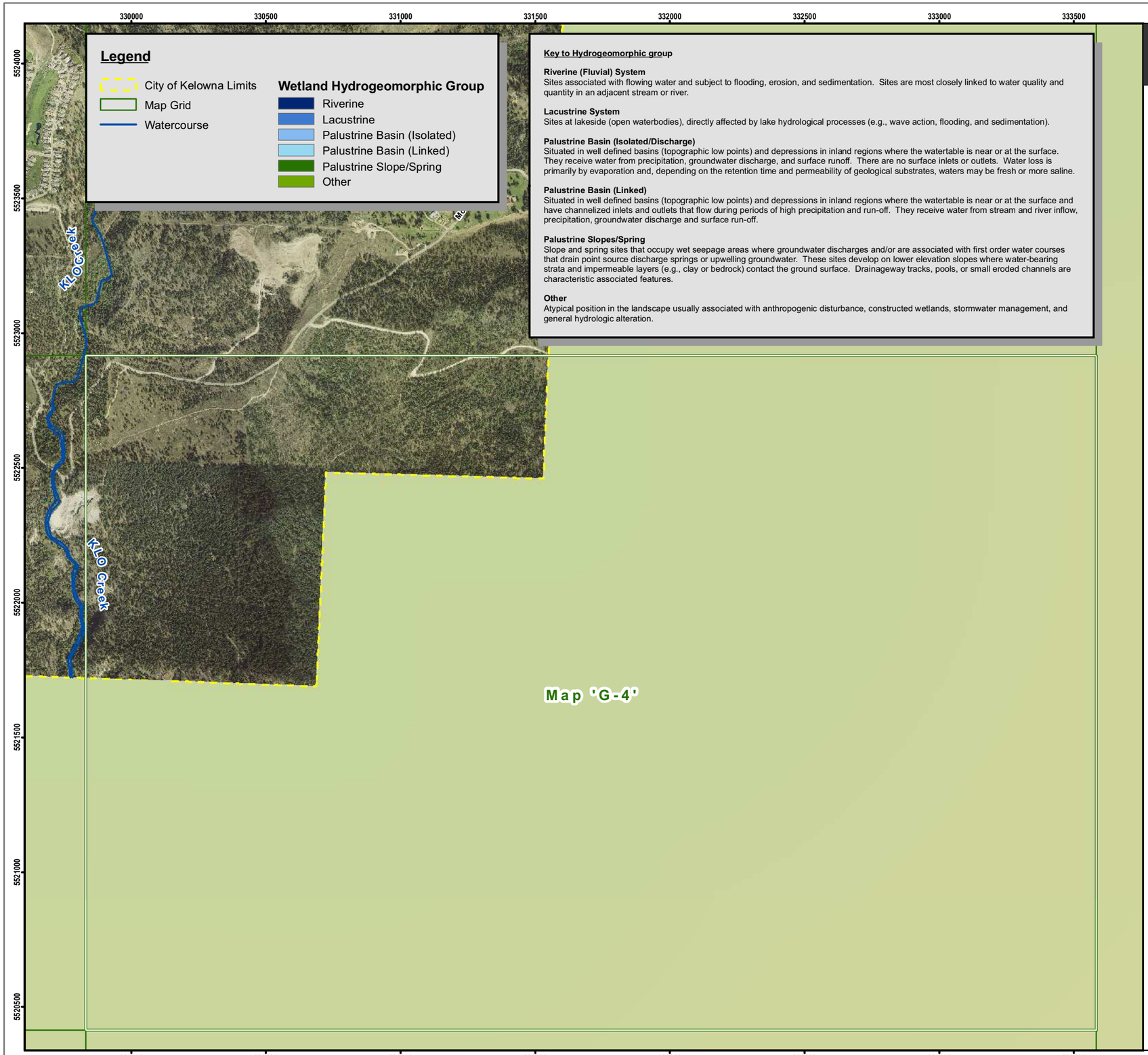
Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

Other
Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.



Wetland Inventory

Map 'G-4'

Project:	Wetland Inventory, Classification, Evaluation and Mapping (WIM)
Location:	City of Kelowna, BC
Project No.:	07-151
Prepared for:	City of Kelowna
Prepared by:	Ecoscape Environmental Consultants Ltd.
Drawn by:	Robert Wagner
Checked by:	Kyle Hawes
Projection:	NAD83-UTM Zone 11
Date:	May, 2008

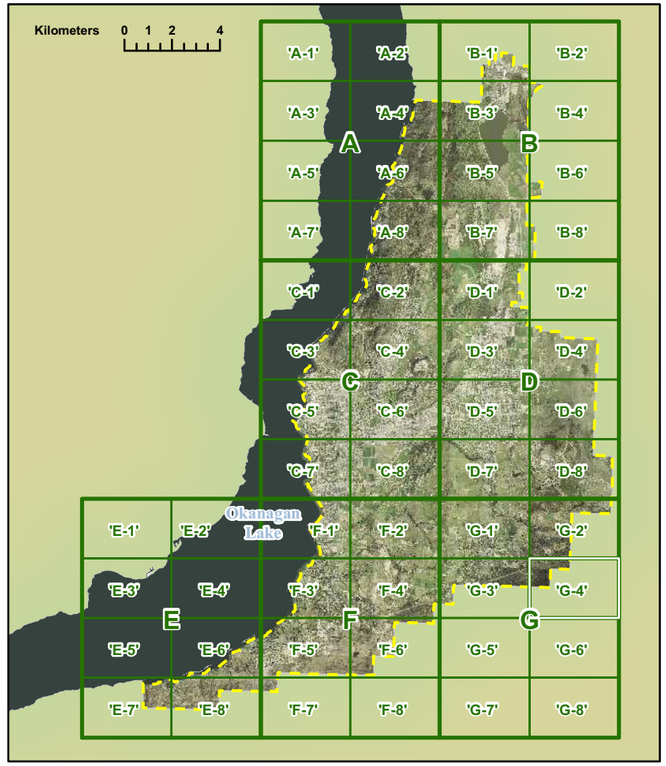
250 125 0 250 500 750 Meters

1:15,000

N W E S

SOURCE INFORMATION

Base Map:	82E.084 Kelowna
Orthophoto:	2006, Provided by City of Kelowna
Waterbody Information:	Field Inventory
Location Information:	Field, GPS (Trimble GeoXT) / Airphoto and Topographic Estimate
Feature Information:	Field Inventory
Date of Inventory:	Fall, 2007
Inventory Management:	Kyle Hawes, R.P. Bio. / Robert Wagner



City of Kelowna

Okanagan Basin WATER BOARD

Ducks Unlimited Canada CANADA'S CONSERVATION COMPANY

ECOSCAPE Environmental Consultants Ltd.

PHOTO AND DATA SUMMARY PLATES

102 – 450 Neave Court, Kelowna BC., V1V 2M2 Phone: 250.491.7337 Fax: 250.491.7772 Email: ecoscape@ecoscapeltd.com

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LEGEND
Photo and Data Summary Plates

Due to the variety of different methods of data collection (e.g., airphoto, ground survey, aerial, etc.), it was not possible to collect data for all parameters. Data fields filled with the term **na** refer to one of the following:

- The data could not be collected in the field (e.g., water chemistry data not collected because there was no water) – Or – feature information for a particular wetland was based on that of others and through airphoto estimate and interpretation.

- It was not possible to make inferences or accurately determine appropriate values for the field. This circumstance was most common for wetlands that were not ground surveyed.

GENERAL						
Local Name 1	Numeric Code 2	Location information 3	Feature Information 4	Fish Frequented 5	Primary Character 6	Area (m^2) 7
Comments						

BIODIVERSITY			
Number of Wetland Types 8	Number of Communities 9	Number of Vegetation Forms 10	Open Water Type 11
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group 12	Hydrodynamic Class 13	Soil Moisture 14	Soil Nutrient 15	Hydrophyte Composition 16	TDS 17	PH 18	EC 19
Comment					Clarity 20	Colour 21	

SOILS/SUBSTRATES						
Soil Order 22	Texture 23	Depth to Gley 24	Depth to Mottle 25	Depth to Water 26	Organic Class 27	Organic Depth 28
Comment						

WETLAND COMMUNITIES						
Class 29	Form 30	Sub-Form 31	Type 32	Association 33	Number of Forms 34	Vegetation Forms [i] 35

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class 36	Qualifier 37	Stage 38	Shrubs 39	Snag 40	Veteran 41
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL) 42		IMPACT RATING 43	
Comment		Comment	

1. Local Name: Come or gazetted wetland name.
2. Numeric Code: Refers to the alpha-numeric grid established by Ecoscape for the City (See Index Maps).
3. Location Information: In recognition of the fact that not all wetland units were inventoried, the wetland database also included Location and Feature Information summary data for respective wetlands to describe how the wetland boundaries were delineated (i.e., Location Information) and how the data was collected (i.e., Feature Information). Sites relying exclusively on field GPS (FDG) and Inventory (INV) for location and feature information contain the highest degree of confidence with respect to wetland area boundaries and community information. Given that different methods were employed, it is

imperative that the Location and Feature Information collection methods be considered as not all sites were field-inventoried since it was beyond the project scope.

Table A. Key to data / information collection methods for wetlands.

Location Information		Feature Information	
Detail	Map Code	Detail	Map Code
Field GPS	FDG	Inventory	INV
Air Photo Estimate	APE	Air Photo Estimate	AP
Other	OTH	Other	OTH

4. Feature Information: See 3 Table A (above)

5. Fish Frequented: Whether or not individual or linked wetlands are themselves frequented by fish or connected by surface water flows to fish bearing watercourses. Field entry codes are:
   No – Not frequented by fish;
   Yes – Fish frequented – or – connected by surface water to fish-bearing watercourse;
   Un-confirmed – there is potential – or – no data
   This data field was not confirmed by a fisheries inventory or other methods as required by the Riparian Areas Regulation, rather, this information was based on visual observation during field inventories, background review, and desk-top interpretation of aerial and topographic imagery. The intent of including this field in the data was *to flag wetlands that have the potential to be frequented by fish or be connected by surface waters to fish bearing watercourses* so that appropriate studies may be undertaken to determine their status under the RAR and the Fisheries Act. Thus, this information does not absolve the need for more detailed field work by an environmental professional to determine whether the RAR or Federal Fisheries Act applies to a particular wetland.

6. Primary Character: Natural = Not recently modified disturbed
   Modified = Recently modified/altered
   Constructed = Excavated basins and typical stormwater discharge areas creating hydraulic conditions for wetland development

7. Area: Spatial area of wetland unit / mosaic. Unit of measure = square meters.

8. Number of Wetland Types: Total wetland classes per wetland unit (e.g., Marsh/Swamp/Low flood bench = 3).

9. Number of Communities: Total number of Vegetation communities within the wetland unit (e.g., cattail marsh (Wm05) / shallow water(Wa) / Great bulrush marsh (Wm06) / Water birch-rose (Fl07) = 4).

10. Number of Vegetation Forms: Total number of vegetation forms within the wetland unit (See Appendix B for Wetland Forms).

11. Open Water Type: See Figure 3, Section 4.3.2.

12. Hydrogeomorphic Group: Describes the topographic position and hydrology of sites (See Appendix B).

13. Hydrodynamic Class: See Hydrodynamic Index (Appendix B).

14. Soil Moisture: Annual amount of soil water available for evapotranspiration by vascular plants over a number of years (Pojar et. al. 1987). Four (4) categories are considered within this inventory:
   Moist – temporary groundwater table may be present / supports forests;
   Very moist – rooting zone groundwater present during the growing season, groundwater table > 30cm below surface / supports forests;
   Wet – Groundwater table between 0 – 30cm below surface / can support tall shrubs and trees; and,

Very Wet – Groundwater at or above surface during growing season.

15. Soil Nutrient: Essential soil nutrients available to vascular plants over a period of several years (Pojar et .al. 1987). Generally as acidity increases, available captions decrease, resulting in reduced site productivity (Mackenzie and Moran, 2004). Five sites are recognized:

    Very acid = <4.5 pH
    Moderately Acid = 4.5-5.5 pH
    Slightly Acid = 5.5-6.5 pH
    Neutral = 6.5-7.4 pH
    Alkaline = >7.4pH

16. Hydrophyte Composition:

Wetland plant indictors are defined by MacKenzie and Moran (2004) are as follows:

Obligate hydrophytes:
Plants occur almost always under natural conditions in wetlands (more than 99% of the time).

Facultative Hydrophytes – Wetland Affiliated:
Plants usually occur primarily in wetlands (67-99 % of the time) but are occasionally found in non-wetlands.

Facultative Hydrophytes – Upland Affiliated:
Plants usually occur in non-wetlands, but are occasionally found in wetlands (1-33 % of the time).

Obligate Upland:
Plants almost always occur (more than 99 percent of the time) in uplands.

In field inventories, the list of hydrophytes provided by MacKenzie and Moran (2004), was considered and simplified within the data base as the % Hydrophyte Composition (i.e., estimated total cover of Obligate and Facultative Hydrophytes). Total cover estimates were categorized into the following ranges:

    1-20%
    21-40%
    41-70%
    71-90%
    >90%

17. TDS: Total dissolved solids (TDS) is an expression for the combined content of all inorganic and organic substances contained in a liquid which are present in a molecular, ionized or micro-granular (colloidal sol) suspended form. Unit of Measure = Mg/L

18. pH: Is the measure of the acidity or alkalinity of a solution. Water pH (acidity/alkalinity) is a correlate measure of base cation availability. Generally, as acidity increases, available base cations decrease, resulting in reduced site productivity

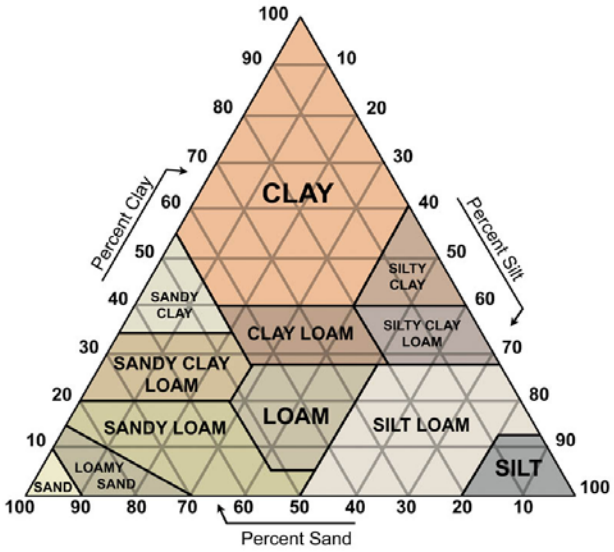
19. EC: Electrical conductivity or specific conductivity is a measure of a material's ability to conduct an electric current. Unit of measure = µS/Sec

20. Water Clarity: See Appendix B

21. Water Colour See Appendix B

22. Soil Order: See Appendix B

23. Texture: The predominant size of mineral particles in a soil – Based on the soil texture triangle:



24. Depth to Gley: A type of hydric soil which exhibits a greenish-blue-grey soil colour due to wetland conditions. Units in cm

25. Depth to Mottle: The reddish-brown speckles found in the hydric soil profile. Caused by the reduction of available oxygen in the soil. Units in cm

26. Depth to Water: Depth to groundwater table. Units in cm

27. Organic Class: Level of decomposition of organic soils. For the purpose of this assessment there were three (3) Classes:

Fibric (Von Post degree of decomposition = 1-4) = poorly decomposed plant residues that are readily identifiable.
Mesic (Von Post degree of decomposition = 5-6) = partly decomposed plant residues which are at a stage of decomposition between fibric and humic.
Humic (Von Post degree of decomposition = 7-10) = well-decomposed plant residues that are unrecognizable and for the most part have been transformed into humic materials.

28. Organic Depth: Depth of Organic Horizon(s). Units = cm

29. Class: See Appendix B

30. Form: See Appendix B

31. Sub-form: See Appendix B

32. Type: See Wetland Types (Appendix B)

33. Association: Based on BC Wetland Classification System (MacKenzie and Moran, 2004) – See Appendix B.

34. Number Forms: Total number of vegetation forms present in a single vegetation community polygon within the wetland unit.

35. Vegetation Forms: See Vegetation Forms and Data symbols (Appendix B)

36. Class (Surrounding Habitat): See Data Dictionary (Appendix A)

37. Qualifier Surrounding Habitat): See Data Dictionary (Appendix A)

38. Stage Surrounding Habitat:): See Data Dictionary (Appendix A)

39. Shrubs Surrounding Habitat): See Data Dictionary (Appendix A)

40. Snag Surrounding Habitat:): Number of Snags (standing dead trees)

41. Veteran (Surrounding Habitat:): Number of Veteran Trees

42. Functional Condition: Proper Functioning Condition*:* Riparian-wetland areas are functioning properly when adequate vegetation, landform, or large woody debris are present to: (1) determine whether adequate vegetation is present to dissipate wind and wave energies, thereby reducing erosion and improving water quality; (2) filter sediment, and aid floodplain development; (3) improve floodwater retention and groundwater recharge; (4) develop root masses that stabilize shorelines and banks; (5) support diverse vegetation to provide within water habitat diversity; overhead shade to maintain water temperatures, and understorey cover to support waterfowl and other wildlife.(6) support greater biodiversity.

Functional-At Risk*:* These riparian-wetland areas are in functional condition, but an existing soil, water, or vegetation attribute makes them susceptible to degradation. For example, a stream reach whose upper watershed is being overgrazed or a grazed wetland shore may have the attributes of a properly functioning system, but it may be poised to suffer severe erosion in a future large storm.

Non-functional*:* Riparian-wetland areas that clearly are not providing adequate vegetation, landform, or large woody debris to dissipate stream or wetland wave energy associated with high flows and winds and thus are not reducing erosion, improving water quality, etc., as already described, are nonfunctional. The absence of certain physical attributes such as a floodplain where one should exist are indicators of nonfunctioning conditions.

43. Impact Rating: Nil → Very Low → Low → Moderate → High → Extreme
Nil = (Natural/undisturbed/un-fragmented)
Extreme = (Constructed/severely fragmented/non-functioning)

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A4-1	A4-1	FDG	INV	No	Natural	5379
Comments	Moist graminoid meadow - transitional site					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	Shallow moisture recevinig depression		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Moist	Alkaline	1-20%	na	na	na
Comment	Moisture receiving meadow				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Brunisol	Silt	0.0	0.0	0.00		<60cm
Comment	No gley no mottle					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	Basin Marsh	Linked	Grass	Gs02	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	<5%	>=5	No
Comment	Fire hazard mitigation works and roads adjacent to meadow area.				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Transitional meadow	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A6-1	A6-1	FDG	INV	No	Natural	5132
Comments	Draw-down over drying cycle. Thistle advancing into basin					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	3	1 (<5%)
Comments	100-m from adjacent isolated basin		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Dynamic	Wet	Alkaline	71-90%	na	na	na
Comment	Presently no standing water				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	14.0	na	25.00	Fibric(VP1-4)	<60cm
Comment	Organic depth 15cm					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	3	re; gc; m
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts; ls
Saline Meadow	Basin Marsh	Isolated	Forb	Gs00	1	gc

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; f=floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	34-66%	<5	No
Comment	Livestock impacts and drawdown-thistle encroachment/infestation				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Drawdown over dry cycle and livestock impacts and weed	Comment	Old homestead and livestock disturbnce and weed infestation

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A6-2	A6-2	FDG	INV	No	Modified	6973
Comments	Draw-down over drying cycle. Thistle advancing into basin					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	3	4 (26-75%_central)
Comments	100-m from adjacent isolated basin		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Mobile	Very Moist	Alkaline	1-20%	na	na	na
Comment	Presently no standing water				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Solonetzic	Silt Loam	na	na	na		<60cm
Comment	no gley - organic veneer less than 1cm over silt loam					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Saline Meadow	Basin Marsh	Isolated	Forb	Gs01	2	gc; ne
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	<5	No
Comment	Livestock disturbnce				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment	Transitional/saline meadow non functioning as wetland	Comment	Livestock impacts

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A6-3	A6-3	FDG	INV	No	Modified	638
Comments	Dry highly disturbed saline meadow - non wetland					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Sluggish	Moist	Alkaline	1-20%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Solonetzic	Loamy Fine Sand	na	5.0	na		<60cm
Comment	sand loam					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow			Grass	Gs00	2	ne; ls

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	<5%	No	No
Comment	Disturbed poorly drained moist basin				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Disturbed transitional/saline depression	Comment	Exposed soil - disturbed moist poorly drained basin

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A6-4	A6-4	FDG	INV	No	Modified	360
Comments	Saline meadow with very small open water basin in center					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	2	1 (<5%)
Comments	small wetted OW basin in center. Old well occurs in depression.		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Dynamic	Very Moist	Alkaline	1-20%	2000.0	9.6	4000.0
Comment	TDS and conductivity off scale.				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Solonetzic	Silty Clay Loam	1.0	1.0	0.00		<60cm
Comment	no gley-no mottles-small cetral basin wetted trans saline meadow surounding-minimal organic					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Saline Meadow	Basin Marsh	Discharge	Grass	Gs01	2	ne; gc
Shallow water	Basin Water	Discharge	Submerged_aquatic	Sw	1	no aquatic veg. filamentous algae
Marsh	Basin Marsh	Discharge	Low_rush	Wm00	1	ne

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	No	No
Comment	Young Fd/Py woodland surrounding saline meadow.				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Small central basin marginally functioning - potentially critical for	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A6-5	A6-5	FDG	INV	No	Modified	1760
Comments	Dugout basin-previously transitional/saline meadow					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	6 (76-95%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	>90%	1750.0	9.3	3550.0
Comment	dugout pond				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Fine Sand	0.0	0.0	0.00		<60cm
Comment	no gley-no mottles-small cetral basin wetted trans saline meadow surounding-minimal organic					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Sw	2	su; re
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	2	re; gc

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	<5	No
Comment	Excavated central basin				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Excavated basin better functioning than as wetland than saline	Comment	Excavated but re-generating marsh.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A6-6	A6-6	FDG	INV	No	Modified	1271
Comments	Moist basin water table present >1.4m below surface					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	Dried up from sucessive dry years. Remnant bulrush and cattail		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Moist	Alkaline	1-20%	na	na	na
Comment	Moisture receiving meadow				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Brunisol	Loamy Fine Sand	na	na	1.30		<60cm
Comment	No gley no mottle					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	Basin Marsh	Isolated	Grass	Gs01	3	ne; re; gc
Flood_Low_Bench	Flat Swamp	Basin Swamp	Mixed_shrub	Fl07	1	ts; ls

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	>=5	No
Comment	Small dia pine. Small dirt road along western margin of basin				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Transional meadow	Comment	Receded water table perhaps from water withdrawal in adjacent

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Mckinnley reservoir	A6-7	FDG-APE	INV	Yes	Modified	155199
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	4	8 (>95%OW)
Comments	Lake		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Lacustrine	Sluggish	Very Wet	Alkaline	>90%	105.0	8.5	215.0
Comment	Moisture receiving meadow				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	No gley no mottle					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Lacustrine Water	Shore	Submerged_aquatic	Sw	1	su
Flood_Low_Bench	Flat Swamp	Basin Swamp	Mixed_shrub	Fl07	1	ts; ls
Flood_Low_Bench	Riparian Swamp	Lacustrine Swamp	Tree_Broadleaf	Fl07	1	h; ts; ne
Marsh	Lacustrine Marsh	Shore	Tall_rush	Wm05	3	re; ne; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	<5%	<5	No
Comment	Small dia pine. Small dirt road along western margin of basin				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Moderate	
Comment	Reservoir	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-1	A8-1	FDG	INV	No	Modified	3833
Comments	Presently dry					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	3	4 (26-75%_central)
Comments	Open water discharge basin (presently dry)		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Dynamic	Wet	Alkaline	>90%	na	na	na
Comment	presently dry				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0.0	0.0	60.00		<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Marsh	Discharge	Submerged_aquatic	Sw	2	gc; su
Marsh	Basin Marsh	Discharge	Tall_rush	Wm06	2	re; ne
Marsh	Basin Marsh	Discharge	Forb	Gs00	2	gc; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	mature forest	34-66%	<5	No
Comment	Quad trail through basin between A8-1 and A8-2				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Presently dry with light intensity use quad crossing - still proper	Comment	Some weed encroachment and quad use adjacent wetland

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-2	A8-2	FDG	INV	No	Natural	7687
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	5	4 (26-75%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Mobile	Very Wet	Alkaline	71-90%	1503.0	9.1	3020.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt Loam	0.0	0.0	0.00	Mesic(VP5-6)	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Discharge	Submerged_aquatic	Sw	1	
Marsh	Basin Marsh	Discharge	Tall_rush	Wm06	2	re; gc
Marsh	Basin Marsh	Discharge	Grass	Gs00	2	gc; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	mature forest	34-66%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment		Comment	Quad trail between A8-1 and A8-2

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-3	A8-3	FDG	INV	No	Natural	1131
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	1 (<5%)
Comments	functionally connected to lower ponds		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Moist	Neutral	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt Loam	0.0	na	na	Fibric(VP1-4)	<60cm
Comment	Humified A horizon lto .3m snaill shells throught-silty/diatomaceous/ with shells down to bottom					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Basin Marsh	Isolated	Grass	Wm00	2	ne; m
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	ts

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	mature forest	67-100%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Nil	
Comment	Canary grass appears to have invaded the basin and is now	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-7	A8-7	FDG	INV	No	Natural	7897
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	4	6 (76-95% central)
Comments	functionally connected to lower ponds		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Dynamic	Very Wet	Alkaline	71-90%	960.0	9.4	1950.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0.0	0.0	0.00		<60cm
Comment	water to surface					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Sw	1	su
Marsh	Basin Marsh	Isolated	Tall_rush	Wm00	3	ne; re; gc
Marsh	Basin Marsh	Isolated	Grass	Gs00	3	ne; gc ;re

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	mature forest	5-33%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment		Comment	Old road along east bank above pond

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-8	A8-8	FDG	INV	Unconfirmed	Natural	13616
Comments	About 76% Ow - 2 embayments, some patchy great bulrush beds in open water					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	5	6	7 (76-95%_patch)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	>90%	515.0	8.7	1036.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Mesisol	Silty Clay	0.0	0.0	0.00	Mesic(VP5-6)	60-160cm
Comment	Oco /aquatic abundant shells/diatomaceous					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Sw	2	su; re
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	1	re
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	2	re; gc
Marsh	Basin Marsh	Isolated	Grass	Wm00	3	ne; gc; re
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	34-66%	No	No
Comment	Old roads (skidder) surround wetland				

FUNCTIONAL CONDITION (ECOLOGICAL)	IMPACT RATING
Proper_Funct_Cond	Low

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-9	A8-9	FDG	INV	Yes	Natural	7143
Comments	Rainbow trout occur in pond (introduced)					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	4	6 (76-95%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	>90%	758.0	9.1	1512.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Coarse Sand	0.0	0.0	0.00		<60cm
Comment	Oco (Coprogenous/aquatic organics) over coarse sand - then 0.1m Oco then coarse sand					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Sw	1	su
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	3	re; gc; m
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	1	re
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts; gc

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	mature forest	5-33%	<5	<5
Comment	Old road cuts around north and east sides				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	Despite road cuts low impacts on wetland function. RB have

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-11	A8-11	FDG	INV	No	Modified	932
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Very Wet	Neutral	>90%	274.0	7.8	553.0
Comment	presently dry				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Fibrisol	Silt Loam	0.0	0.0	0.00	Mesic(VP5-6)	<60cm
Comment	water to surface.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	2	re; m
Swamp	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Ws03	2	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	<5	No
Comment	Surrounded by small gravel roads				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Road fragmentation and potential development encroachment	Comment	Gravel roads

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-12	A8-12	FDG	INV	No	Natural	3919
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	5	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Very Wet	Alkaline	>90%	na	na	na
Comment	presently dry				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt	0.0	0.0	10.00		<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	3	re; gc; m
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	<5	No
Comment	Road fill on south east margin causing some bank instability.				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	Gravel road encroachment

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-13	A8-13	FDG	INV	No	Natural	5611
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	5	5	2 (5-25% central)
Comments	OW unit presently dry		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	71-90%	na	na	na
Comment	Presently dry				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt	10.0	na	45.00	Fibric(VP1-4)	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Basin Marsh	Isolated	Grass	Wm00	2	ne; gc
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	2	re; gc
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	4	re; ne; gc; m
Shallow water	Basin Water	Linked	Submerged_aquatic	Sw	3	su; ne; gc
Swamp	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Ws03	2	ts; ne

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	mature forest	5-33%	>=5	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-14	A8-14	FDG	INV	No	Natural	340
Comments	Small very moist to wet basin - vernal open water.					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Moist	Neutral	41-70%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt Loam	0.2	na	1.00	Fibric(VP1-4)	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Grass	Wm00	3	ne; gc; m
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	young forest	34-66%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Very_low	
Comment	Invasive plants	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-15	A8-15	FDG	INV	No	Natural	3416
Comments	Significant drawdown (2m) from historic elevation (HWL)					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	6 (76-95%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	>90%	893.0	8.6	1790.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment	No substrate core sampled					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Basin Marsh	Isolated	Submerged_aquatic	Sw	1	su
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	2	re; gc
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts; ls

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	mature forest	5-33%	>=5	No
Comment	Coarse bank material and bedrock				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-17	A8-17	FDG	INV	No	Modified	816
Comments	Road encroachment - modified wetland					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Neutral	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Sand	na	na	na		
Comment	Historic fill with rock prevented pit or core - however hydrology still supports marginal wetland conditions					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	4	re; ne; gc; m

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	<5	No
Comment	Rip rap on eastern margin and talus/sparsely vegetated site on west bank.				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Historic fill with rip rap	Comment	Historic fill - enhancment compensation opps since hydrology still

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
A8-18	A8-18	APE	OTH	No	Natural	1536
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [L]
Marsh	Basin Marsh	Isolated	Grass	Wm00	1	
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	ts

[L] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	mature forest	34-66%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	Esimated by air photo

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Lightblue Lake	A8-19	APE	OTH	Unconfirmed	Natural	18581
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	4	8 (>95%OW)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Sw	1	
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	2	
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	mature forest	34-66%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment	Estimated from air photo	Comment	Esimated by air photo

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	A8-20	APE	OTH	No	Natural	5264
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	4	4 (26-75%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline		na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Sw	2	su; re
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	1	re
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	ts

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	mature forest	34-66%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment	Estimated from air photo	Comment	Estimated from air photo interpretation

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	A8-21	APE	OTH		Modified	395
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	6 (76-95%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Shallow water	Basin Water	Isolated	Submerged_aquatic	SW	1	su
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	1	re

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	tall shrubs 2-10m	5-33%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Excavated Basin	Comment	Excavated open water basin

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	A8-22	APE	OTH		Modified	2725
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Mobile	Very Moist	Alkaline	1-20%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Discharge	Low rush	Wm00	2	ne; gc
Saline Meadow	Basin Marsh	Discharge	Forb	Gs00	2	gc; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	2b	<5%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment	Estimated from air photo interpretation	Comment	Estimated from air photo interpretation

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	B3-1	APE	OTH		Modified	42618
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	8 (>95%OW)
Comments	Discharge basin - livestock impacts and road encroachment		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Very Dynamic	Very Wet	Alkaline	71-90%	na	na	na
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Discharge	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Discharge	Low_rush	Wm07	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	<5%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	Livestock impacts and invasive plant colonization

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	B3-2	APE	OTH		Modified	7851
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	4 (26-75%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Wet	Alkaline	41-70%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	1	re
Shallow water	Basin Water	Discharge	su	Wa	1	su

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	<5%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	mud bogging threatens wetland commnities	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
B3-5	B3-5	APE	AP		Natural	1669
Comments	Non-wetland					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	3 (5-25% patch)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	1	re
Marsh	Basin Marsh	Isolated	Forb	Wm00	2	gc; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	young forest	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	B3-8	APE	OTH	No	Modified	6960
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	41-70%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Basin Marsh	Isolated	Low_rush	Wm00	2	ne; gc

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	<5%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Intense 4x4 disturbance	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
B3-10	B3-10	APE	OTH	No	Modified	230
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	0	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	<5%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
B3-11	B3-11	APE	OTH	No	Modified	193
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	0	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	<5%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment		Comment	

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
B3-12	B3-12	APE	AP	No	Modified	406
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	1-20%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Grass	Wm00	0	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	<5%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
B5-1	B5-1	FDG	INV	No	Modified	57323
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	4	4	6 (76-95%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Dynamic	Very Wet	Alkaline	>90%	2000.0	9.3	4000.0
Comment	clear water-tds/cond off scale				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0.0	na	0.00	Fibric(VP1-4)	<60cm
Comment	Aquatic substrates shells/diatomaceaous down to 1.2 m					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Discharge	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Discharge	Tall_rush	Wm06	2	re; gc
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	ts
Saline Meadow	Basin Marsh	Discharge	Sedge	Gs03	2	ne; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	>=5	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Past livestock impacts with weedy margin	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
B5-3	B5-3	APE	OTH	No	Modified	1427
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Moist	Alkaline	1-20%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Grass	Wm00	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Low	
Comment	Very moist meadow - field truthing may determine area to be non-	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
B5-4	B5-4	APE	OTH	No	Modified	4668
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Forb	Wm00	2	gc; ne
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	2	re; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	young forest	5-33%	No	No
Comment	Cliff along western margin				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment	Weedy transitional site with disturbed wetland basin	Comment	Field truthing required

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	B5-5	APE	OTH	No	Modified	5168
Comments	Weedy transitional site					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Wet	Alkaline	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_rush	Wm00	2	re; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	No	No
Comment	4x4 access and diturbance to meadows				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment	Weedy transitional site	Comment	Field truthing required

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	B5-6	APE	OTH	No	Modified	6127
Comments	Very moist meadow - field truthing may determine area to be non-wetland					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Moist	Alkaline	1-20%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	Basin Marsh	Isolated	Grass	GS00	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment		Comment	Field truthing required

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	B5-7	APE	OTH	No	Modified	7829
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	Disturbed transitional wetland - saline meadow		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Wet	Alkaline	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	Basin Marsh	Isolated	Grass	Gs00	0	

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	<5%	No	No
Comment	Historic timber harvest				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment	Currently a wet transitional association	Comment	4x4 activity trhoughout the shallow basin

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	B5-8	APE	OTH	No	Modified	7779
Comments	Moist Aspen stand through riparian gully - non wetland (field truthing required)					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
na	na	na	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Low_Bench				Fl07	2	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Ellison Lake (Duck Lake)	B5-9	APE	OTH	Yes	Natural	78368
Comments	Ellison Lake wetland and flood associations					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	5	6	1 (<5%)
Comments	Lake level regulation may promote expansion of wetland		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Lacustrine	Very Dynamic	Very Wet	Neutral	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Lacustrine	Shore	Grass	Wm00	1	ne
Marsh	Lacustrine	Shore	Tall_rush	Wm05	2	re; ne
Swamp	Riparian	Floodplain	Tall_shrub_>2-m	Ws03	0	
Shallow Water	Lacustrine	Shore	Submerged_aquatic	SW	0	
Flood_mid_bench			Tree_Broadleaf	Fm02	3	h; ts; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	B5-9a	APE	OTH	Unconfirmed	Modified	31298
Comments	Fragmented from Ellison Lake lacustrine shore marsh by railway					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	4	1 (<5%)
Comments	Railway represents artificial barrier but wetland area still		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Lacustrine	Dynamic	Wet	Neutral	41-70%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Lacustrine	Lagoon	Tall_rush	Wm05	2	re; ne
Marsh	Lacustrine	Lagoon	Grass	Wm00	na	na
Swamp	Riparian	Floodplain	Tall_shrub_>2-m	Ws03	na	na

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed				
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Fragmented from Ellsion Lake and agricultural disturbance	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	B5-10	APE	OTH	No	Modified	16812
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	8 (>95%OW)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Dynamic	Very Wet	Alkaline	>90%	na	na	na
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Discharge	Submerged_aquatic	Wa	1	su

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	2b		No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Intense livestock use	Comment	Intense livestock use

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Ponds DL 119 Sec. 26 TWP.23	B5-11	APE	AP	No	Modified	12934
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Dynamic	Very Moist	Alkaline	1-20%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Saline Meadow	Basin Marsh	Discharge	Grass	Gs01	2	ne; gc

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	2b		No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
na	B7-1	FDG-APE	INV	na	Modified	36462
Comments	Whelan Creek swamp and low bench flood associations - henrony within					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	7	1 (<5%)
Comments	Despite encroachment - critical nesting area and very high		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	Neutral	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Riparian Swamp	Riverine	Tall_shrub_>2-m	Ws03	5	ts; h; hd; re; ne
Marsh	Riparian	Stream	Tall_rush	Wm05	na	na
Marsh	Riparian	Stream	Grass	Wm00	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agricultural				
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Airport operations threaten the wetland and wildlife species within	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
na	B7-2	APE	AP	na	Modified	240
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	6 (76-95%_central)
Comments	Appears to be excavated basin - field confirmation required		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Stagnant	Very Wet	Alkaline		na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	SW	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest			
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C2-1	C2-1	FDG	INV	No	Natural	12068
Comments	Bulrush - cattaill marsh					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	1 (<5%)
Comments	No open water present low water		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Dynamic	Wet	Alkaline	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	8	na	70	Fibric(VP1-4)	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_rush	Wm06	1	re
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	2	re; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	<5%	No	<5
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Urban development expansion may place this wetland at risk in	Comment	present impact low

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C2-2	C2-2	FDG	INV	No	Modified	7282
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	4	1 (<5%)
Comments	Water birch fringe discontinuous - bulrush, rcg patches, very		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Moist	Alkaline	41-70%	na	na	na
Comment	No water				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Clay Loam	11	na	na	Fibric(VP1-4)	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	Basin Marsh	Isolated	Grass	Gs00	2	ne; gc
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	2	re, ne,
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	young forest	5-33%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Road-30m to east	Comment	bike trails, paths

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C2-3	C2-3	FDG	INV	No	Modified	342
Comments	Transitional meadow, with reed canary grass pocket in center					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Moist	Alkaline	41-70%	na	na	na
Comment	No water				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Brunisol	Silt	11	na	na	na	<60cm
Comment	Gleyed brunisol					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	Basin Marsh	Isolated	Grass	Gs00	1	ne
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	34-66%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Road/construction	Comment	trail

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
10B	C2-4	FDG	INV	No	Modified	18111
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	3	4 (26-75%_central)
Comments	Alkaline bulrush marsh and shallow open water		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Very Wet	Alkaline	71-90%	580.0	8.5	1120.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Clay Loam					<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	1	m
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	1	re
Marsh	Basin Marsh	Isolated	Forb	Gs03	1	gc; re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Urban_Residential	young forest	5-33%	<5	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Future urban development to north and east of wetland -	Comment	Photo PB090577- rock pile at northern edge

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Hidden Lake	C2-5	FDG-APE	INV	No	Modified	46632
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	8 (>95%OW)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Stagnant	Very Wet	Alkaline	>90%	1575.0	9.6	3154.0
Comment	Eutrophic pond				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	Aquatic substrates					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Isolated	Low_rush	Wm07	3	ne; gc; re
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	2	re; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	young forest	5-33%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Important waterfowl feeding and staging area - large turtle	Comment	Urban development, encroachment, and fragmentation - histopric

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Still Pond	C2-6	FDG	INV	Unconfirmed	Modified	32718
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	2	8 (>95%OW)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Alkaline	>90%	1940.0	9.6	3890.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	Aqautic (pond) environment					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_rush	Wm06	2	re; ne
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	2	su; m
Saline Meadow	Basin Marsh	Linked	Forb	Gs00	2	gc; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Urban_Residential	young forest	34-66%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Fragmented by development	Comment	Trails, road, urbanization

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C2-7	C2-7	FDG	INV	No	Modified	9884
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	1 (<5%)
Comments	Transitional bulrush marsh and weedy herbaceous outer margin		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	41-70%	na	na	na
Comment	Presently dry				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay Loam	7	na	na	Fibric(VP1-4)	<60cm
Comment	No water encountered in pit.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	2	re; gc
Saline Meadow	Basin Marsh	Isolated	Forb	Gs00	1	gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Highly disturbed - marginal functional condition	Comment	tracks through middle of marsh

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C2-8	C2-8	APE	INV	Unconfirmed	Modified	658
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	Modified stream marsh and riparian swamp		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Riparian Swamp	Riverine	Tall_shrub_>2-m	Ws03	1	ts
Marsh	Riparian	Stream	Tall_rush	Wm06	3	re; ne; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Imperviousness	Urban_Residential	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Highly disturbed - marginal functionl condition	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C2-9	C2-9	APE	INV	Unconfirmed	Modified	1797
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	Modified stream marsh and narrow discontinuous low bench flood		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm06	2	re; gc
Flood_Low_Bench	Riparian Swamp	Riverine	Tall_shrub_>2-m	Fl07	2	ts; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Imperviousness	Urban_Residential	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Highly disturbed - marginal functionl condition	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C2-10	C2-10	APE	INV	yes	Modified	4256
Comments	Brandt Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; gc
Flood_Low_Bench	Riparian Swamp	na	na	Fl00	1	ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agricultural	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C2-11	C2-11	APE	INV	yes	Modified	1880
Comments	Brandt Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agricultural	na	na	no	no
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C2-12	C2-12	APE	INV	Unconfirmed	Modified	994
Comments	Brandt Creek tributary wetland					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; gc

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agricultural			no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Agriculture and hydroloic alteration	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C2-13	C2-13	FDG	INV	No	Modified	1407
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	4	3 (5-25%_patch)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Very Wet	Alkaline	71-90%	na	8.7	na
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt Loam	0	0	0	na	60-120
Comment	Calcareous C horizon - diatomacous, ash and shells beneath Oco					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Low_Bench	Flat swamp	Basin	Tall_shrub_>2-m	Fl07	1	ts
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	3	m; su; re
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	2	re; m

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	67-100%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Adjacent road developemnt in progress	Comment	riparian disturbance and hydologic threats

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	C2-14	APE	OTH	Unconfirmed	Modified	925
Comments	Considerable change in site since 1998 work and existing site conditions not reflective of 98 photos					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Stagnant	Moist	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	na

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	na	na	Grass	Gs00	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment	Drying trend has shifted this area to a moist to very moist modified transitional site	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	C3-1	APE	OTH	No	Modified	6229
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Wet	Alkaline	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	1	re
Flood_Low_Bench			Tall_shrub_>2-m	Fl07	2	ts; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	young forest	5-33%	no	no
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C4-2	C4-2	FDG	INV	No	Natural	1304
Comments	Reed canary grass basin at toe of steep talus slope					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	1 (<5%)
Comments	Reed canary grass marsh with water birch-rose low bench		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Wet	Neutral	71-90%	na	na	na
Comment	no water				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay Loam	10	na	na	Fibric(VP1-4)	<60cm
Comment	Coarse material intermixed with fines					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Grass	Wm00	1	ne
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	Water birch, rose sp., snowberry

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	young forest	34-66%	<5	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	nearby road disturbance	Comment	Nearby road influence

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C4-3	C4-3	FDG	INV	No	Natural	2365
Comments	Reed canary grass marsh					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Wet	Alkaline	71-90%	na	na	na
Comment	No water present				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Very Fine Sand	20	na	na	Fibric(VP1-4)	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Marsh	Basin Marsh	Isolated	Grass	Wm00	1	ne
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts; ls

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Natural	young forest	5-33%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Road less than 20 m to west	Comment	Road within 20m on west side

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Rio Terrace Pond	C4-6	APE	INV	No	Modified	21595
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	6 (76-95%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Dynamic	Very Wet	Alkaline	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	1	ts

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Kathleen Lake	C4-7	APE	INV-OTH	No	Natural	20292
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	8 (>95%OW)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Very Wet	Alkaline	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	1	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	mature forest	34-66%	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
0	C4-8	APE	INV	Unconfirmed	Modified	358
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Imperviousness	Urban_Residential	na	na	no	no
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Extreme	
Comment	Higly modified stream corridor/ditched with wetland	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
na	C4-9	APE	INV	Unconfirmed	Modified	381
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re
Flood_Low_Bench	Riparian Swamp	Riverine	Tall_shrub	Fl07	1	ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
na	C4-10	APE	INV	Unconfirmed	Modified	355
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	Modified stream marsh and narrow discontinuous low bench flood		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	na	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Low_Bench	Riparian Swamp	Riverine	Tall_shrub_>2-m	Fl07	1	ts
Marsh	Riparian	Stream	Tall_rush	Wm05	1	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Imperviousness	Urban_Residential	na	a	no	no
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Very narrow stream corridor/wetland characteristics	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Valley Glen Wetlands	C4-11	APE	INV	Unconfirmed	Constructed	3675
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	8 (>95%OW)
Comments	Constructed stormwater management pond at confluence of Brandt Ck east and west channels		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Alkaline	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	1	su

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Imperviousness	Urban_Residential	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Functional_at_Risk		Extreme	
Comment	Constructed pond	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	C4-12	APG	INV	Unconfirmed	Constructed	305
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	3 (5-25% patch)
Comments	Constructed waterbody onstream with Brandt Creek		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [L]
Marsh	Riparian Marsh	Stream	Grass	Wm00	1	ne

[L] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
na	C4-13	FDG-APE	INV	Unconfirmed	Constructed	1310
Comments	reconstructed since SHIM completed therefore new stream alignment exists					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
na	na	na	na
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
na	na	na	na	na	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	na	na	Tall_rush	na	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
na		na	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Rotary Marsh	C5-1	APE	INV	Yes	Modified	8887
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	6 (76-95%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	2	su; be
Marsh	Riparian	Stream	Tall_rush	Wm05	1	re

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	a	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Moderate	
Comment	Proper functioning created wetland	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Redlich Pond	C6-2	APE	OTH	Unconfirmed	Modified	4338
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	8 (>95%OW)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	0	su
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	1	re

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Urban_Residential	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Fragmented pond environment	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C6-3	C6-3	APG	INV	Yes	Modified	171
Comments	Small riparian stream marsh					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	Railroad fragmentation

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C6-4	C6-4	APG	INV	Yes	Modified	81
Comments	Small riparian stream marsh					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Broadleaf forest	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	Urban encroachment

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C6-5	C6-5	FDG-APE	INV	Unconfirmed	Modified	8175
Comments	Fragmented riparian stream marsh					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	Hydrologic connection to Mill Creek via small flows through rail		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	na	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	3	re; gc; ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Fasciuex Creek Marsh	C7-1	APG	INV	Yes	Modified	10383
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	5	5 (26-75%_embaymnts)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; su
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	2	su; re
Flood_Mid_Bench			Tree_Broadleaf	Fm01	3	h; hd; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	Naturalizing however, severe fragmentation of weltand inhibit

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Maude Roxby Bird Sanctuary (Marsh)	C7-2	APE	OTH	Unconfirmed	Modified	13622
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	5	5 (26-75%_embaymnts)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Lacustrine	Dynamic	Very Wet	na	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Lacustrine	Lagoon	Tall_rush	Wm05	2	re; be
Shallow water	Lacustrine	Lagoon	Submerged_aquatic	Wa	1	su
Flood_Mid_Bench			Tree_Broadleaf	Fl03	3	h; ts; gc;

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Lake	Disturbed	na	na		
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	Naturalizing

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-1	C8-1	FDG	INV	No	Natural	2830
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	4	6	4 (26-75% central)
Comments	Series of linked basins		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Alkaline	>90%	295.0	7.9	598.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Loamy Coarse Sand	0		0	Mesic(VP5-6)	<60cm
Comment	15-cm fibric-mesic. Aquatic substrates over mineral soils.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	2	su; re
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	3	re;gc;m
Swamp	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Ws03	2	ts;ls
Flood_Low_Bench			Tree_Broadleaf	Fl07	2	h;ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Low shrub	Disturbed	low shrubs <2m	34-66%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	Beetle logging around wetland/riparian margin essentailly

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-2	C8-2	FDG	INV	Unconfirmed	Natural	9683
Comments	Linked basin receives flows from C8-1					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	5	9	6 (76-95%_central)
Comments	Two distinct open water communities separated by a narrow		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Alkaline	>90%	236.0	8.7	455.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Loamy Coarse Sand	0		0	na	<60cm
Comment	Minerotropic wetland. Humic glay around margins. Aquatic (non-soil) substrates.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	3	su; m; ff
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	3	re;ne;gc
Swamp	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Ws03	2	ts;ls
Marsh	Basin Marsh	Linked	Forb	Wm00	4	gc;ne;ls;m
Flood_Low_Bench			Tall_shrub_>2-m	Fl07	2	ts; ls

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Natural	mature forest	67-100%	No	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-3	C8-3	FDG	INV	No	Natural	1144
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	6	4 (26-75%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	>90%	207.0	7.9	415.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt Loam	0		0	Fibric(VP1-4)	<60cm
Comment	Aquatic substrates (non-soil)					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	3	su;ff;dh
Swamp	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Ws03	4	ts;ls;gc;ne
Marsh	Basin Marsh	Linked	Sedge	Wm03	2	ne;gc

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Tall Shrubs	Natural	mature forest	67-100%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment		Comment	Not yet logged around wetland to control spread of pine beetle.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-4	C8-4	FDG	INV	No	Natural	230
Comments	Linked between basins by small channel					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Wet	Alkaline	41-70%	na	na	na
Comment	Basin presently dry				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Loamy Sand	15	12	25	Fibric(VP1-4)	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Forb	Wm00	3	gc; ne; m
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Tall Shrubs	Natural	mature forest	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment	Decresed groundwater table (dry period) may be greatest risk to	Comment	Not recently disturbed

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-5	C8-5	FDG	INV	No	Natural	597
Comments	Transitional community - Historically shallow water/marsh where water was 1.5m deep at centre of basin					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Wet	Alkaline	21-40%	na	na	na
Comment	Presently dry				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Loamy Coarse Sand	30	12	60	Fibric(VP1-4)	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Forb	Wm00	2	gc; ne
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts;ht

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Tall Shrubs	Natural	tall shrubs 2-10m	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Wetland function at risk from hydrological changes (reduced water table)	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-6	C8-6	FDG	INV	No	Natural	222
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Wet	Alkaline	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Fine Sand	0				<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Basin Marsh	Linked	Forb	Wm00	1	gc
Flood_Low_Bench			Tall_shrub_>2-m	Fl07	1	ts

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Tall Shrubs	Natural	tall shrubs 2-10m	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Infestation of nightshade. Wetland at risk from hydrological.	Comment	Thistle and nightshade could potentially invade and displace

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Trout Pond	C8-7	FDG	INV	Yes	Constructed	2429
Comments	Stocked trout pond / excavated and lined with clay.					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	8 (>95%OW)
Comments	Trout pond. Disturbed / access around perimeter		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Alkaline	>90%	184.0	8.8	367.0
Comment	Chemisrty not yet balanced. Groundwater well inflow with clay bottom.				Clarity	Colour	
					Very Clear	Blue_Green	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Clay			0		<60cm
Comment	Clay bottom - organic substrates not yet accumulated.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	1	su

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	young forest	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Constructed basin. In state of trophic surge.	Comment	excavated early - still balancing

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
na	C8-8	FDG	INV	Yes	Natural	2510
Comments	Downstream of trout pond screen not sized to exclude fish through to pond below.					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	4	6 (76-95%_central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Alkaline	>90%	190.0	8.8	375.0
Comment	na				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt Loam	na	na	na	na	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	2	su; ne
Marsh	Basin Marsh	Linked	Grass	Wm00	2	ne;gc
Flood_Low_Bench	na	na	Tall_shrub_>2-m	Fl07	2	ts;ls

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	mature forest	67-100%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	na	Comment	hydraulic modification and forest harvest adjacent site

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-9	C8-9	FDG	INV	Unconfirmed	Modified	4508
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	5	8 (>95%OW)
Comments	Modified basin - fir stumps near centre of basin indicating		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Alkaline	>90%	162.0	8.3	325.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Coarse Sand	0	0	0	0	<60cm
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Linked	Grass	Wm00	2	ne;gc
Flood_Low_Bench			Tall_shrub_>2-m	Fl07	2	ts;h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	mature forest	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment	Light intensity park use.	Comment	Despite past modificatiomn and light park us this basin is well

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-10	C8-10	FDG-APE	INV	No	Natural	705
Comments	Floodplain swamp and low flood bench					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	Mission Creek floodplain swamp		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Mobile	Very Moist	Neutral	21-40%	398.0	6.5	7.3
Comment	Water sample taken from small wetted basin in swamp				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Coarse Sand				Fibric(VP1-4)	<60cm
Comment	Leaf litter over alluvial substrates					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Mid_Bench		Floodplain	Tree_Broadleaf	Fm02	4	h; ts; ls; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Natural	mature forest	67-100%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	historic excavation and diking inhibit floodplain dynamics

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-11	C8-11	FDG-APE	INV	Unconfirmed	Constructed	1767
Comments	Constructed basin in Mission Ck floodplain - no property access - air photo interpretation					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	8 (>95%OW)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Mobile	Very Wet	Neutral	>90%	na	na	na
Comment	No chemistry since property access denied				Clarity	Colour	
					nan	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	Coarse Sand	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Riparian Water	Floodplain Water	Submerged_aquatic	Wa	1	su
Flood_Mid_Bench	Riparian Swamp	Floodplain	Tree_Broadleaf	Fm02	4	h; ts; ne; gc

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	young forest	34-66%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Excavated basin - limited riparian	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-12	C8-12	FDG	INV	No	Modified	245
Comments	Small ditch					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	4	1 (<5%)
Comments	Ditching and seepage		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Mobile	Very Wet	Neutral	71-90%	284.0	7.5	575.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Very Fine Sand	na	na	na	Fibric(VP1-4)	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	na	1	ff
Marsh	Spring Marsh	Spring	Tall_rush	Wm05	2	re;gc
Swamp	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Ws03	1	ts
Flood_Mid_Bench		Seepage	Tree_Broadleaf	Fm02	3	h;ts;gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	sapling >10m	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Modifed by ditching	Comment	Modifed by ditching

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-14	C8-14	FDG-APE	INV	Unconfirmed	Modified	2972
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	5	8 (>95%OW)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Alkaline	>90%	157.0	9.0	315.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	2	su; f
Marsh	Basin Marsh	Linked	Low_rush	na	2	ne;re
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fm00	3	h;ts;gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Urban_Residential	mature forest	34-66%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	Development around about 30% of pond

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-15	C8-15	FDG	INV	No	Modified	1101
Comments	Significant draw-down over years - up to 1.5m					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	3	1 (<5%)
Comments	Upland affiliated plants (i.e., nootka rose) beginning to colonize		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Wet	Neutral	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	na	na	55	Mesic(VP5-6)	60-160cm
Comment	Deep mesic-humic to abot 70cm where core encountered resistance - thus assumed to be mineral.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Forb	na	3	gc; re; ts
Marsh	Basin Marsh	Linked	Tall_rush	Wm06	1	re
Marsh	Basin Marsh	Linked	Forb	na	1	0

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Urban_Residential	young forest	34-66%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Invsive forbs and transitional to non-functioning wetland - alterred	Comment	Mowed to edge with high weed invasion ratio in wetland

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-16	C8-16	FDG-APE	INV	Yes	Modified	8274
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	5	3	8 (>95%OW)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Neutral	>90%	359.0	8.1	7.2
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	2	su; f
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts;h
Marsh	Basin Marsh	Linked	Tall_rush	Wm06	2	re;gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	mature forest	67-100%	No	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Important migratory bird, and bat habitat - large pond	Comment	Urban encroachment.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-17	C8-17	FDG-APE	INV	No	Modified	710
Comments	no property access - air photo interpretation					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	2 (5-25%_central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	>90%	na	na	na
Comment	No chemistry since no access granted to property				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	1	re
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	1	su;lwd
Flood_Low_Bench	Flat Swamp	Basin Swamp	Mixed_shrub	Fl07	2	ts;ls

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	young forest	34-66%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Cleared to wetland edge	Comment	Cleared to wetland boundary - inclusinve of thicket/riparian

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-18	C8-18	FDG	INV	No	Modified	1297
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	3	4 (26-75%_central)
Comments	Small highly disturbed isloated basin		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Stagnant	Very Wet	Neutral	41-70%	393.0	7.6	798.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Very Fine Sandy Loam	na	na	na	na	<60cm
Comment	organic depth 60cm-saturated mineralsoil to 120cm wheeree aauger encou tered solid ground					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Floating_aquatic	Wa	1	ff
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts; h
Marsh	Basin Marsh	Isolated	Grass	na	2	ne; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	young forest	67-100%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment	Livestock - marginal function for amphibians.	Comment	Livestock on north portion

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-22	C8-22	FDG	INV	Unconfirmed	Modified	920
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	6	6 (76-95%_central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Alkaline	>90%	230.0	8.3	460.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Silty Clay Loam	na	na	na	na	<60cm
Comment	very shallow O layer					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Floating_aquatic	Wa	2	f; su
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Linked	Tall_rush	Wm06	2	re;gc
Marsh	Basin Marsh	Linked	Forb	0	2	gc; ne
Flood_Low_Bench	0	0	Tall_shrub_>2-m	Fl07	2	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	young forest	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-23	C8-23	FDG-APE	INV	Unconfirmed	Modified	1060
Comments	Access discouraged - air photo interpretation					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	Wet basin marsh high weed invasion ratio		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Wet	Neutral	41-70%	na	na	na
Comment	no standing water				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt Loam	na	na	na	na	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Forb	Wm00	2	gc; re
Swamp	Flat Swamp	Basin Swamp	Tall_shrub >2-m	Ws03	2	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	mature forest	67-100%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment	High weed invasion weed managemnt plan likely colonized after	Comment	Drawdown and invasive plant infestation

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-24	C8-24	FDG-APE	INV	Unconfirmed	Modified	2585
Comments	Connected between C8-22 and C8-23					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	4	5	4 (26-75%_central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Neutral	>90%	240.0	7.9	478.0
Comment	water colour very blue - possible chemicals used to combaat algae or high CaCO3 levels				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Silty Clay Loam	na	na	na	na	<60cm
Comment	mineral substrates with very shallow detrital and aquatic substrates layer					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Floating_aquatic	Wa	1	f
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	2	re; gc
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	mature forest	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Algicide use may have occurred due to very turquoise blue or	Comment	Urban/rural

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
lower Malacord Pond	C8-25	FDG	INV	No	Modified	1812
Comments	Significant drawdown by 1.5 m evidence by old dock and boat. Stranded wetland areas infested thistle					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Alkaline	41-70%	468.0	8.1	930.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	na	na	na	Mesic(VP5-6)	<60cm
Comment	humified gleyed A horizon					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	2	re; ne
Marsh	Basin Marsh	Linked	Forb	Wm00	2	gc; m; ne
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl03	2	ts; h

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	sapling >10m	67-100%	<5	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Suceeding to more upland/riparian as water levels recede	Comment	Encroachmnt infestations and hydraulic changes threateening

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-26	C8-26	FDG	INV	Unconfirmed	Constructed	2798
Comments	Pond					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	8 (>95%OW)
Comments	constructed/excavated pond		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Mobile	Very Wet	Neutral	>90%	399.0	8.0	808.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Coarse Sand	na	na	na	na	na
Comment	deep excavated pond adjacent mission creek in aluvium. therefore no core taken					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Floodplain Water	Submerged_aquatic	Wa	1	su
Flood_Mid_Bench	Riparian Swamp	Floodplain Swamp	Tall_shrub_>2-m	Ws03	1	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Dug out pond	Disturbed	sapling >10m	34-66%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Constructed pond-with intrinsic value	Comment	Excavted/constructed basin

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-27	C8-27	FDG	INV	Unconfirmed	Modified	1648
Comments	Air photo interpretation on no access property					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	4	7	2 (5-25% central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Neutral	>90%	465.0	8.0	927.0
Comment	shallow open water at both ends				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Sandy Clay Loam	50	na	na	Fibric(VP1-4)	<60cm
Comment	organic depth 50 cm to Ah - could not core deeper					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Marsh	Linked	Floating_aquatic	Wa	1	ff
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	2	re;ne
Marsh	Basin Marsh	Linked	Forb	Wm00	2	gc; re
Swamp	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Ws03	2	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Natural	young forest	67-100%	<5	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Marginal risks to function from adjacent retaining wall/rural	Comment	Retaining wall

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-28	C8-28	FDG	INV	Yes	Constructed	736
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	8 (>95%OW)
Comments	Water table influenced by Mission Creek		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Mobile	Very Wet	Alkaline	>90%	238.0	8.1	475.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Coarse Sand	na	na	na	na	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Floodplain Water	Submerged_aquatic	Wa	1	su
Marsh	Riparian Marsh	Floodplain	Low_rush	Wm00	2	ne; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Dug out pond	Disturbed	low shrubs <2m	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Open water pond with funtioning submrged aquatic community	Comment	Constructed basin

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-30	C8-30	FDG	INV	No	Modified	106
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Dynamic	Very Wet	Alkaline	>90%	801.0	8.5	1612.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	na	na	na	Humic(VP7-10)	60-160cm
Comment	organic depth aboout 80cm to underlying mineeeral					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	4	re; ff; gc; ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	low shrubs <2m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Appears to have been filled	Comment	Previous filling

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-31	C8-31	FDG-APE	INV	Unconfirmed	Modified	929
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	5	7 (76-95%_patch)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Neutral	>90%	405.0	7.5	816.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	na	na	na	na	na
Comment	saturated open water					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	3	su; ff; re
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	1	re
Swamp	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Ws03	2	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	young forest	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Fencing keeps livestock out of riparian - well developed riparian	Comment	Rural disturbnnce but entire wetland community generally in tact

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Dewdney Creek	C8-32	FDG-APE	INV	Yes	Modified	5678
Comments	Low flow obstruction at Mission Creek but fish may ascend during higher flows					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	1	4	1 (<5%)
Comments	Hall Road wetland complex (linked basins and riverine wetlands)		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Alkaline	71-90%	270.0	8.3	536.0
Comment	na				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Fine Sand	na	na	na	Mesic(VP5-6)	60-160cm
Comment	Accumulation of Oco and fine sediments					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	Grass	Wa	3	ne; re; be
Swamp	Riparian Swamp	Stream	Tall_shrub_>2-m	Ws03	3	ts; ls; gc
Flood_Low_Bench	Riparian Swamp	Stream	Tall_shrub_>2-m	Fl07	3	ts; ls; gs
Flood_Mid_Bench	Riparian Swamp	Stream	Tree_Broadleaf	Fl02	5	h; hd; ts; ls; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	mature forest	67-100%	>=5	<5
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Despite disturbance and modifications to hydrology - proper	Comment	Natural regeneration

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Dewdney Creek	C8-32a	FDG-APE	INV	Yes	Modified	24077
Comments	Low to mid flood bench sites with wet seepage swamp sites, marsh drainage channels and ponds.					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	1	4	1 (<5%)
Comments	Hall Road wetland complex (linked basins and seepage sites and		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	Alkaline	71-90%	270.0	8.3	536.0
Comment	na				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Fine Sand	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	1	su
Swamp	Riparian Swamp	Stream	Tall_shrub_>2-m	Ws03	3	ts; ls; gc
Flood_Low_Bench	Riparian Swamp	Stream	Tall_shrub_>2-m	Fl07	3	ts; ls; gs
Flood_Mid_Bench	Riparian Swamp	Stream	Tree_Broadleaf	Fl02	5	h; hd; ts; ls; gc
Marsh	Riparian Marsh	Floodplain	Tall_rush	Wm05	2	re; ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	mature forest	67-100%	>=5	<5
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Despite disturbance and modifications to hydrology - proper	Comment	Natural regeneration

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Photo ID

No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Dewdney Creek	C8-32b	APE	AP	Yes	Modified	3271
Comments	Low flow obstruction at Mission Creek but fish may ascend during higher flows					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	1	4	1 (<5%)
Comments	Former wetland prior to construction of dike along Mission Creek		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Alkaline	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; ts

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	mature forest	67-100%	>=5	<5
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Despite disturbance and modifications to hydrology - proper	Comment	Natural regeneration

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-33	C8-33	FDG	INV	No	Modified	392
Comments	Linked basin with Hall Road encroachment along eastern margin.					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	6 (76-95%_central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Alkaline	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	2	su
Swamp	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Ws03	2	ts;ht

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Urban_Residential	young forest	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Road encroachment along entire western margin.	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-34	C8-34	FDG	INV	No	Modified	56
Comments	Flows culverted beneath lawn area					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	1st order tributaries to Dewdney Creek		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Very Dynamic	Wet	na	21-40%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Slope Swamp	Seepage	Tall_shrub_>2-m	Ws00	2	ts; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Urban_Residential	tall shrubs 2-10m	67-100%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Thickets providing nesting habitat for songbirds - poor wetland	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-35	C8-35	FDG-APE	INV	No	Modified	2358
Comments	Modified cattail marsh - basin/pond. Cars on north side of marsh					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	Associated low bench flood site included in boundary area		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Alkaline	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	3	re; ne; gc
Low_Flood_Bench	Slope Swamp	Seepage	Tall_shrub_>2-m	Fl07	2	ts;gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Urban_Residential	mature forest	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	Road encroachment and rural residential disturbance.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-36	C8-36	FDG-APE	INV	No	Modified	2446
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	5	4 (26-75%_central)
Comments	Constructed central basin with landscaping and natural swamp		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Alkaline	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	na	na	na	na	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	2	su; re
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	1	re
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	3	ts; gc; h
Flood_Mid_Bench	na	na	Tree_Broadleaf	Fm02	1	h; ts

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Urban_Residential	young forest	67-100%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-37	C8-37	FDG-APE	INV	No	Modified	6550
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	4	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	Alkaline	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	Seepage	Tall_rush	Wm05	1	re
Flood_Low_Bench	Slope Swamp	Seepage	Tall_shrub_>2-m	Fl03	3	ts; h; re
Marsh	Slope Marsh	Seepage	Forb	Gs00	1	gc; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	low shrubs <2m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-38	C8-38	FDG-APE	INV	No	Modified	15156
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	Alkaline	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	Seepage	Tall_rush	Wm05	1	re
Flood_Low_Bench	Slope Swamp	Seepage	Tall_shrub_>2-m	Fl07	3	ts; re; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	5-33%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	na	Comment	na

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Photo ID

No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-39	C8-39	APE	AP	na	Modified	2643
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	8 (>95%OW)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	Neutral	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Floodplain Water	Submerged_aquatic	Wa	1	su
Flood_Low_Bench	na	na	Tall_shrub_>2-m	Fl07	1	ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Picco Pond	C8-40	APE	OTH	Yes	Modified	4825
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	5	4 (26-75%_central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	2	na
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	na
Flood_Low_Bench	Riparian Swamp	Riverine	na	Fl03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	tall shrubs 2-10m	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Modified part constructed and modulated water levels	Comment	Naturalized and important habitat area

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-41	C8-41	APE	AP	Unconfirmed	Constructed	345
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	8 (>95%OW)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Constructed pond	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-42	C8-42	FDG-APE	INV	Yes	Modified	5113
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	6	3 (5-25%_patch)
Comments	Fascieux Creek		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Floodplain	Wm05	na	na
Swamp	Riparian Swamp	Floodplain	Tall_shrub_>2-m	Ws00	na	na
Flood_Low_Bench	Riparian Swamp	Floodplain	Tree_Broadleaf	Fl03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Habitat fragmentation	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-43	C8-43	APE	AP	Unconfirmed	Constructed	298
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	na	4 (26-75%_central)
Comments	Constructed and modified pond		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	na	na
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Constrcuted_and modified and fragmented	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-44	C8-44	APE	AP	No	Constructed	80
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	4 (26-75%_central)
Comments	Constructed residential pond		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	na	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-45	C8-45	APE	AP	No	Constructed	68
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	4 (26-75% central)
Comments	Constructed residential pond		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Munson Pond	C8-46	APE	AP-OTH	Unconfirmed	Modified	42251
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	8 (>95%OW)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	na	na
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tree_Broadleaf	Fl03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Habitat fragmentation	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
C8-47	C8-47	APG	INV	Yes	Modified	4442
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	4	4 (26-75% central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	Neutral	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	2	su; re
Flood_Low_Bench	Riparian Swamp	Stream	Tall_shrub_>2-m	Fl03	3	ts; h; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	na	Comment	Excavated and ditching

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	C8-48	APE	OTH	No	Modified	3238
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Stagnant	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	2	re; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Fragmentation	Comment	Maintantnce of adajcent aspen stand may support increased local

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D1-1	D1-1	APE	INV	Unconfirmed	Modified	1764
Comments	Disturbed marsh and wet ditch along Brandt Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Wet	Neutral	>90%	na	na	na
Comment					Clarity	Colour	
						0.0	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential				
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Marginal to non-functioning	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D1-3	D1-3	FDG-APE	INV	Unconfirmed	Ditched	521
Comments	Disturbed marsh and wet ditch along Brandt Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	Headwater area of Brandt Creek		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Marginal to non functioning	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Robert Lake	D1-4	FDG-APE	OTH-INV	No	Modified	241182
Comments	Transitional saline meadow very dynamic					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	8 (>95%OW)
Comments	Very dynamic natural of basin translates into dynamic wetland and		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Very Dynamic	Very Wet	Alakaline		na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Discharge	Submerged_aquatic	Wa	na	na
Marsh	Basin Marsh	Discharge	Tall_rush	Wm06	na	na
Marsh	Basin Marsh	Discharge	Low_Rush	Wm07	na	na
Saline Meadow	0	0	Grass	Gs01	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	na	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D1-5	D1-5	APE	AP	No	Modified	17616
Comments	Transitional saline meadow very dynamic					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	8 (>95%OW)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Very Dynamic	Very Wet	Alakaline	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	ma					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Basin Water	Discharge	Submerged_aquatic	Wa	na	na
Marsh	Basin Marsh	Discharge	Tall_rush	Wm06	na	na
Marsh	Basin Marsh	Discharge	Low_Rush	Wm07	na	na
Saline Meadow	0	0	Grass	Gs01	na	na

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Carney Pond	D1-6	APE	INV	Unconfirmed	Modified	50231
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	4	4	5 (26-75%_embaymnts)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Very Wet	Alakaline	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	na	na
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	na	na
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	na	na
Swamp	Flat Swamp	Basin Swamp	Tall_shrub >2-m	Ws03	1	ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Railway encroachment and fragmentation on east with threats to	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Simpson's Pond	D1-7	FDG-APE	AP-INV	Yes	Modified	57179
Comments	Surface water connection to Mill Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	4	4	3 (5-25%_patch)
Comments	Severe encroachment and fragmentation		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Very Wet	Neutral	na	na	na	na
Comment					Clarity	Colour	
					0	0.0	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Shallow water	Riparian Water	Floodplain	Submerged_aquatic	Wa	2	su; re
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	0	0
Marsh	Riparian Marsh	Stream	Tall_rush	Wm06	0	re; gc
Flood_Mid_Bench	0	0	0	Fm02	0	0

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Extreme	
Comment	At significant risk of further encroachment, fill, and loss	Comment	

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Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	D1-8	APE	AP	Unconfirmed	Modified	8887
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm05	na	na
Swamp	Slope Swamp	na	Tall_shrub_>2-m	Ws03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Fragmented and highly disturbed by railway and road corridor	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D1-9	D1-9	APE	AP	Unconfirmed	Modified	5258
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Slope Swamp	na	Tall_shrub_>2-m	Ws03	3	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Fragmented and highly disturbed by railway	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D1-10	D1-10	APE	AP	Unconfirmed	Modified	6547
Comments	Potential surface water connection to Mill Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	4	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm05	na	na
Marsh	Slope Marsh	na	Grass	Wm00	na	na
Swamp	Slope Swamp	na	Tall_shrub_>2-m	Ws03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Development and hydrologic fragmentation	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D1-11	D1-11	APE	AP-INV	Yes	Modified	5165
Comments	Surface water connection to Mill Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	Ditched and highly modified		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Hydrologic association with Mill Creek	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	D1-13	APE	AP-INV	Unconfirmed	Modified	6109
Comments	Potential surface water connection to Mill Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	5	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm05	na	na
Swamp	Slope Swamp	na	Tall_shrub_>2-m	Ws03	na	na
Flood_Low_Bench	na	na	Tall_shrub_>2-m	Fl03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Natural progession back to wetland if human disturbance is	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D1-15	D1-15	APE	AP-INV	Unconfirmed	Modified	2986
Comments	Potential surface water connection to Mill Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	5	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm05	na	na
Swamp	Slope Swamp	na	Tall_shrub_>2-m	Ws03	na	na
Flood_Low_Bench	na	na	Tall_shrub_>2-m	Fl03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Natural progession back to wetland if human disturbance is	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	D1-16	APG	INV	Yes	Modified	1887
Comments	Mill creek modified oxbow					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	4	4 (26-75%_central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	na	na
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	na	na
Flood_Low_Bench	na	na	Tall_shrub_>2-m	Fl03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Recreational	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Golfcourse	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-1	D3-1	FDG	INV	Yes	Modified	16072
Comments	connected by surface water to Mill Creek - RAR applies					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	mixed agricultural, partial fill encroachment, road crosssing		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Very Dynamic	Very Wet	Alkaline	71-90%	1012.0	8.3	2034.0
Comment					Clarity	Colour	
					Turbid	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt Loam	0	0	0	Fibric(VP1-4)	<60cm
Comment	no mottling, core bottomed out at 0.6 m depth					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; gc
Low_Flood_Bench	Riparian Swamp	Riverine Swamp	Tall_shrub_>2-m	Fl07	1	ts

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	tall shrubs 2-10m	5-33%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Filling encroachment	Comment	Filling and encroachment

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-2	D3-2	FDG	INV	Yes	Constructed	33186
Comments	Chichester Wetland					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	4	5	5 (26-75%_embaymnts)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	submerged aquatic	Wa	na	na
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	na	na
Swamp	Riparian Swamp	Floodplain Swamp	Tall_shrub_>2-m	Ws03	na	na
Flood_Mid_Bench	na	na	Tree_Broadleaf	Fl03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-3	D3-3	FDG-APE	INV	Yes	Modified	882
Comments	Fragmented pacific willow low flood bench on Francis Brook and small wet pocket adjacent right bank					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Riparian Swamp	Floodplain	broadleaf treed	Ws00	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	NFC as wetland. However still important riparian function	Comment	Small remanat stand of willows along Francis Brook.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-4	D3-4	APG	INV	Yes	Modified	83
Comments	Small riparian stream marsh on Francis Brook					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Imperviousness	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	Marginal function as wetland	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-5	D3-5	APE	AP-INV	No	Modified	996
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	na	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Marginal wetlnd function - however modified first order stream	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-6	D3-6	APE	AP-INV	No	Modified	152
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	na	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Marginal wetlnd function - however modified first order stream	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	D3-7	APE	INV	Yes	Natural	12275
Comments	Riverine marsh, swamp, and low to mid bench flood asssociations. Mid bench sites included since cri					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	5	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Moist	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Mid_Bench	0	Floodplain	Tree_Broadleaf	Fm02	na	na
Marsh	Riparian Marsh	Floodplain	Grass	Wm00	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Encroachment and fragmentation should be avoided	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-8	D3-8	APE	INV	Yes	Constructed	628
Comments	Constructed stormwater management pond					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	4 (26-75% central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	na	na
Shallow water	Riparian Water	Stream	na	Wa	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Impervious	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Extreme	
Comment	Constructed system however surface water connection to Mill	Comment	Constructed - may be receiving contaminants from scrap metal

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Oxbow 2-6, plus cattail patch	D3-9	APE	OTH-INV	Unconfirmed	Modified	5631
Comments	Former Mill Creek stream channel - fragmented by railway					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	4	5	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Floodplain	Tall_rush	Wm05	na	na
Swamp	Riparian Swamp	Floodplain Swamp	Tall_shrub_>2-m	Ws03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Tall Shrubs	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	na	Comment	Fragmented from Mill Creek

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Sexsmith Wetlands	D3-10	APE	OTH-INV	No	Modified	6139
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Cattail slope marsh	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-11	D3-11	APE	INV	No	Modified	1269
Comments	wet seep/modified slope marsh					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	Wet seep in field with persistent livestock disturbance		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	na	Comment	Persistent disturbance from agriculture/livestock

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	D3-12	APE	AP	Unconfirmed	Ditch	2394
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	3 (5-25% patch)
Comments	Ditched/constructed - non-functioning condition		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Mobile	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm05	na	na
Shallow water	na	na	Submerged_aquatic	Wa	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-13	D3-13	APE	AP	Unconfirmed	Modified	928
Comments	former floodplain marsh of Mill Creek - fragmented by railway					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Floodplain	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Marginal functioning condition - however functionally connected	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Oxbow 1	D3-14	FDG-APE	INV	Unconfirmed	Modified	3294
Comments	Former Mill Creek stream channel - fragemented by railway					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	4	5	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Floodplain	Tall_rush	Wm05	na	na
Swamp	Riparian Swamp	Floodplain Swamp	Tall_shrub_>2-m	Ws03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Tall Shrubs	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	na	Comment	Fragmented from Mill Creek

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-14a	D3-14a	APE	AP	No	Modified	7472
Comments	moist to wet seep / slope marsh - Dithcing and modification through agriculture					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Mobile	Very Moist	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Grass	Wm00	3	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-15	D3-15	APE	AP	No	Constructed	1873
Comments	Modified isolated basin marsh - possibly constructed for watering pond					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Marginal to non-functioning	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-16	D3-16	APE	AP	No	Ditch	489
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	3 (5-25%_patch)
Comments	Constructed/dithced fields		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Sluggish	Very Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	na	na	na	na	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D3-17	D3-17	APE	AP	No	Ditch	4366
Comments	Very moist to wet slope marsh and associated open water ditches					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Mobile	Wet	na	na	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	na	Wm00	na	na
Shallow water	na	na	na	na	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	Aparent seepage areas along slope area to have been mowed in	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Bauer Brook	D4-1	FDG-APE	INV	Unconfirmed	Modified	4405
Comments	Riparian/creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Moist	Neutral	1-20%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Low_Bench	na	na	Tree_Broadleaf	Fl03	1	h
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	low shrubs <2m	34-66%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	Highly modifed stream gully with discontinuous riparian	Comment	constructed storm channels armouring road encroachmnt

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Bauer Brook	D4-2	FDG-APE	INV	Unconfirmed	Modified	714
Comments	Cottonwood riparian gully - shape starts at upstream end where stream daylights from culvert					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Moist	Neutral	1-20%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Mid_Bench	na	na	Tree_Broadleaf	Fm02	1	h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	low shrubs <2m	5-33%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Non wetland.	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D4-3	D4-3	FDG-APE	INV	No	Modified	504
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Sluggish	Very Moist	Alkaline	1-20%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Mid_Bench	na	Seepage	Tree_Broadleaf	Fm02	3	h; ts; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	low shrubs <2m	5-33%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Cottonwood riparian gully - CDr site association	Comment	Road, alterred hydrology, fill material.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D4-4	D4-4	FDG	INV	No	Constructed	4037
Comments	numeric Code					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	8 (>95%OW)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Alkaline	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	1	su

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Recreation	low shrubs <2m	<5%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Extreme	
Comment	May continue to provide reproducive habitat for amphibains and	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D4-6	D4-6	FDG-APE	INV	No	Natural	3322
Comments	Meandering streamflow through gully					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Dynamic	Very Moist	Neutral	1-20%	na	na	na
Comment					Clarity	Colour	
					0	0.0	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
0	0	0	0	0	0	0
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Mid_Bench	0	Stream	Tree_Broadleaf	Fm02	4	h; ts; gc; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	young forest	67-100%	>=5	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Changes in hydrology may threaten this community	Comment	Adjacent golf course

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D5-1	D5-1	APG	INV	Yes	Modified	6551
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Sluggish	Very Wet	Alkaline	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Impervious	Urban_Residential	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Extreme	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D5-2	D5-2	APG	INV	Yes	Modified	390
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	3 (5-25%_patch)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Impervious	Urban_Residential	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D5-3	D5-3	APG	INV	Yes	Modified	2429
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Impervious	Urban_Residential	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D5-4	D5-4	APE	AP	No	Modified	536
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Wet	Alkaline	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Marginal functional condition given landscape context	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D6-1	D6-1	FDG	INV	Unconfirmed	Natural	6293
Comments	Spadefoots, painted turtles, and tiger salamanders reported					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	5	5	4 (26-75%_central)
Comments	Series of modified linked basins - functionally connected		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Alkaline	>90%	436.0	8.1	874.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Mesisol	Loam	0	0	0	Mesic(VP5-6)	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	1	re
Marsh	Basin Marsh	Linked	Tall_rush	Wm06	1	re
Marsh	Basin Marsh	Linked	Forb	Wm00	2	gc;re;ne
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	2	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Low shrub	Disturbed	low shrubs <2m	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment	Critical habitat area	Comment	historic grazing

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D6-2	D6-2	FDG	INV	No	Modified	3552
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Dynamic	Very Wet	Neutral	>90%	609.0	8.0	1218.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0	0	0	Fibric(VP1-4)	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	3	re; gc; ff
Swamp	Flat Swamp	Basin Swamp	Tall_shrub >2-m	Wm03	2	ts; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	tall shrubs 2-10m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Roads, and hydrological changes	Comment	Based on core information the wetland character may have been

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D6-4	D6-4	FDG	INV	No	Modified	153
Comments	Livestock impacts to small wetland basin					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Dynamic	Very Moist	Alkaline	1-20%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Clay Loam	23	na	66	Fibric(VP1-4)	<60cm
Comment	no mottles - gleying at 23 cm.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	Basin Marsh	Isolated	Grass	Gs02	1	gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	low shrubs <2m	<5%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Severe cattle impacts - small vernal/transitional basin.	Comment	Livestock

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D6-5	D6-5	FDG	INV	No	Modified	406
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	2 (5-25%_central)
Comments	vernal basin - presently dry		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Dynamic	Very Moist	Alkaline	21-40%	na	na	na
Comment					Clarity	Colour	
					0	0.0	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0	59	69	0	<60cm
Comment	Ah horizon 55cm					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Discharge	Submerged_aquatic	Wa	1	su
Saline Meadow	Basin Marsh	Discharge	Grass	Gs02	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	low shrubs <2m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	May function in spring when wetted and may be critical	Comment	Cattle

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D6-6	D6-6	FDG	INV	No	Modified	2066
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Dynamic	Very Moist	Alkaline	41-70%	na	na	na
Comment					Clarity	Colour	
					0	0.0	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Solonetzic	Silty Clay	40	0	83	0	<60cm
Comment	mineral wetland vernal/transitional basin					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Saline Meadow	Basin Marsh	Discharge	Grass	Gs02	1	ne

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	0	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Marginal functioning condition	Comment	Cattle

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D6-8	D6-8	FDG	INV	No	Modified	596
Comments	seep/spring more intermittent and discontinuous creek feature than wetland					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Very Dynamic	Very Wet	Alkaline	71-90%	980.0	9.0	1218.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0	0	0	0	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Spring Marsh	Spring	Low_rush	Gs02	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	low shrubs <2m	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Intense livestock use	Comment	Cattle

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D6-9	D6-9	FDG-APE	INV	No	Modified	1859
Comments	Modified transitional site - alterred hydrology					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Sluggish	Moist	Alkaline	1-20%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Low_Bench	na	Seepage	Tall_shrub_>2-m	Fl07	3	ts; hd; ls

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Tall Shrubs	Disturbed	tall shrubs 2-10m	67-100%	>=5	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Moist riparian shrub thicket	Comment	Alterred hydrology - streamflows ditched around community

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D6-10	D6-10	FDG-APE	INV	No	Modified	5140
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments	Riparian stream swamp		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Wet	Neutral	71-90%	na	na	na
Comment					Clarity	Colour	
					0	0.0	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Riparian Swamp	Stream	Tall_shrub_>2-m	Ws03	3	ts; ne; gc
Flood_Low_Bench	0	0	Tall_shrub_>2-m	Fl07	1	0

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	sapling >10m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Development encroachment	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D6-11	D6-11	FDG-APE	INV	No	Modified	7217
Comments	Gopher Creek riparian gully					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	3	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	Alkaline	21-40%	575.0	8.1	1147.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Silty Clay	0	0	0	0	<60cm
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Low_Bench	Slope Swamp	Seepage	Tall_shrub_>2-m	FI07	3	ts; gc; ne
Swamp	Slope Swamp	0	Tall_shrub_>2-m	Ws03	1	0

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	mature forest	34-66%	No	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Important broadleaf riparian habitat	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D6-12	D6-12	FDG	INV	No	Modified	7228
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Moist	Alkaline	1-20%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	Basin Marsh	Linked	Grass	Gs02	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	low shrubs <2m	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Transitional site - apparent lack of vernal pools	Comment	Persitent disturbance throughout during growing season

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	D6-14	APE	OTH	No	Modified	2753
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Wet	Alkaline	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	3	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	D6-15	APE	OTH	No	Modified	904
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	4	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Sluggish	Very Moist	na	1-20%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm00	4	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	na	Comment	na

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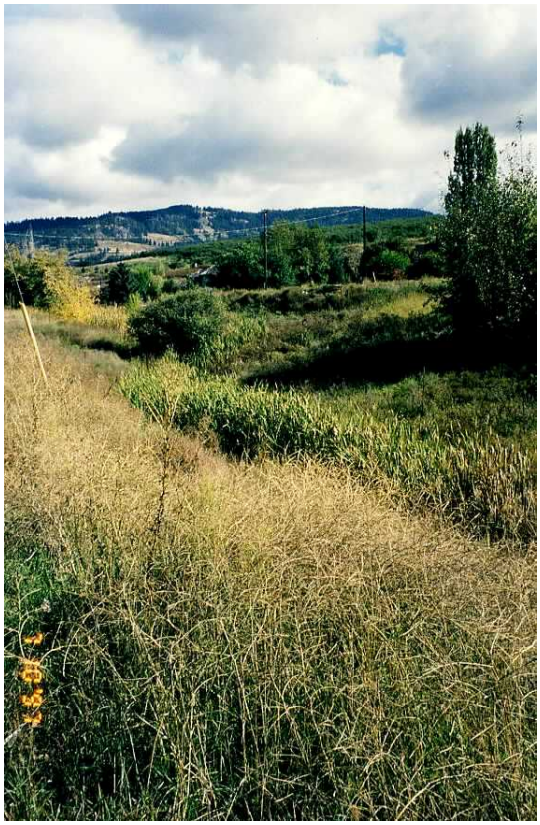

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	D6-16	APE	OTH	No	Modified	2204
Comments	Riparian gully containing 1st order intermittent watercourse with slope marsh characteristics					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	na	Tall_rush	Wm05	3	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	Modified gully

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D7-1	D7-1	FDG	INV	No	Other	450
Comments	Road runoff					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	Very moist to wet drainage gully		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
0	Dynamic	Moist	Neutral	21-40%	550.0	8.5	1101.0
Comment	Muddy water due to digging disturbance, may have impaired water-chemistry				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Sandy Clay Loam	0	0	0	Fibric(VP1-4)	<60cm
Comment	Pasture - no soil core / pit taken					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
0	0	0	Forb	Gs00	1	gc
Marsh	Slope Marsh	0	Tall_rush	Wm05	1	re

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	0	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Some fill material already in the area. Limited wetland function.	Comment	Invasive plants and fill.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Belgo Pond	D7-2	APE	AP-OTH	Unconfirmed	Modified	40870
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	4	8 (>95%OW)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Sluggish	Very Wet	Alkaline	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Discharge	Submerged_aquatic	Wa	na	na
Marsh	Basin Marsh	Discharge	Tall_rush	Wm06	na	na
Flood_Low_Bench	na	na	Tall_shrub_>2-m	Fl02	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Agriculture	mature forest	34-66%	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	D7-3	APE	OTH	No	Modified	2902
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
na	na	na	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
na	Sluggish	Very Moist	na	1-20%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Low_Bench	na	Seepage	Tall_shrub_>2-m	Fl07	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	young forest	5-33%	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	D7-4	APE	OTH	Unconfirmed	Modified	2906
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	5	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
0	Very Dynamic	Very Wet	na	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Slope Swamp	Spring	Tall_shrub_>2-m	Ws01	na	na
Marsh	Slope Marsh	na	na	Wm00	3	re; ne; be

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Natural	young forest	5-33%	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk			
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-1	D8-1	FDG	INV	Unconfirmed	Storm_Pond	3112
Comments	Constructed storm pond					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	3	8 (>95%OW)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Alkaline	41-70%	480.0	8.2	950.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment	No soil core / pit taken					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Forb	Gs00	1	gc
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	2	re; ne
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	1	su

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Urban_Residential	young forest	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Surrounding development. Despite being constructed, wetland	Comment	Constructed ponds

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-1b	D8-2	FDG	INV	Unconfirmed	Modified	703
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Mobile	Wet	Alkaline	>90%	480.0	8.2	950.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Comment	No soil core / pit taken					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Forb	Wm00	3	be, gc, re
Flood_Low_Bench	Riparian Swamp	Riverine Swamp	Tall_shrub_>2-m	Fl07	2	ts; h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Urban_Residential	young forest	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Limited wetland function - water quality benefits afforded by	Comment	Surrounded / fragmented by development

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-3	D8-3	FDG	INV	Unconfirmed	Modified	1439
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	5	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Mobile	Very Moist	Neutral	41-70%	na	na	na
Comment	no surface water				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay Loam	20	na	64	na	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_shrub_>2-m	Wm00	2	ne;gc
Marsh	Riparian Marsh	Stream	Forb	Wm00	2	gc;re
Flood_Low_Bench	Riparian Swamp	Floodplain	Tall_shrub_>2-m	Fl03	2	ts;h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Urban_Residential	young forest	34-66%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	High weed invasion ratio	Comment	Fill material encroaching on wetland - development on all sides

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-4	D8-4	FDG	INV	Unconfirmed	Modified	14843
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	5	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	Alkaline	>90%	437.0	8.3	872.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0	0	0	Fibric(VP1-4)	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re
Marsh	Riparian Marsh	Stream	Grass	Wm00	2	ne; gc
Flood_Low_Bench	Riparian Swamp	Floodplain	Mixed_shrub	Fl03	3	ts;ls;h

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	tall shrubs 2-10m	34-66%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Encroachment and disturbance - invasive plants	Comment	Urban and rural encroachment

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-6	D8-6	FDG	INV	Unconfirmed	Modified	2549
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Mobile	Wet	Neutral	71-90%	707.0	8.0	1419.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0	0	0	Fibric(VP1-4)	60-160cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re
Marsh	Riparian Marsh	Floodplain	Grass	Wm00	2	ne;gc
Flood_Low_Bench	Riparian Swamp	Floodplain	Tree_Broadleaf	Fl07	1	h
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	1	su

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	tall shrubs 2-10m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment		Comment	Past disturbance, alteration evident.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-7	D8-7	FDG	INV	No	Modified	2631
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	5	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Mobile	Wet	Alkaline	71-90%	641.0	8.2	1275.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	50	0	0	0	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Floodplain	Tall_rush	Wm05	2	re; ne
Flood_Low_Bench	Riparian Swamp	Floodplain	Tree_Broadleaf	Fl07	1	h; ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	Encroachment and disturbance around perimeter

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-8	D8-8	FDG	INV	No	Constructed	554
Comments	Drainage ditch					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Sluggish	Very Moist	Alkaline	21-40%	na	na	na
Comment	dry				Clarity	Colour	
					0	0.0	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Regosol	Sand	0	0	0	0	<60cm
Comment	Constructed stormwater feature with underlying poly liner.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Marsh	Slope Marsh	0	Grass	Wm00	3	ne;re; gc

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Constructed ditch / stormwater spillway	Comment	Low value, low potential

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-9	D8-9	FDG	INV	No	Modified	8960
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	3	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Neutral	41-70%	na	na	na
Comment	Intermittent surface water.				Clarity	Colour	
					0	0.0	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0	0	54	0	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Grass	Wm00	2	ne; gc
Marsh	Basin Marsh	Linked	Tall_rush	Wm06	2	re; gc
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	2	re; m
Flood_Mid_Bench	Flat Swamp	Basin Swamp	Tree_Broadleaf	Fm02	2	h;ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	tall shrubs 2-10m	<5%	No	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Weedy margins and dense reed canary grass may be displacing	Comment	Good improvement / enhancement potential and weed

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-10	D8-10	FDG	INV	No	Modified	4462
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Moist	Alkaline	21-40%	na	na	na
Comment	Presently Dry				Clarity	Colour	
					0	0.0	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Solonetzic	Clay Loam	0	0	0	0	<60cm
Comment	Saline meadow.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Saline Meadow	Basin Marsh	Isolated	Grass	Gs02	2	gc; ne

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Cattle grazing / rangeland	Comment	Intense grazing pressure.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-11	D8-11	FDG	INV	No	Modified	20413
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	4	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Loam	30	na	60	na	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Sedge	Wm03	3	ne, re, gc
Marsh	Basin Marsh	Linked	Grass	Wm00	2	ne; gc
Flood_Mid_Bench	Flat Swamp	Basin Swamp	Mixed_shrub	Fl07	2	ts, ls

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	5-33%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-12	D8-12	FDG	INV	No	Modified	5462
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	5	3 (5-25%_patch)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Alkaline	>90%	441.0	8.4	980.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0	0	0	Fibric(VP1-4)	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	2	su; ne
Marsh	Basin Marsh	Linked	Grass	Wm00	2	ne; gc
Swamp	Flat Swamp	Basin Swamp	Tall_shrub >2-m	Wm03	2	ts; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	0	<5%	No	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-13	D8-13	FDG	INV	No	Modified	7359
Comments	Highly disturbed saline madow Gs00					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Moist	Alkaline	21-40%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	Silty Clay	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	Basin Marsh	Linked	Grass	Gs02	2	ne; gc
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	3	ts; ne; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	young forest	5-33%	No	<5
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Intense cattle use	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-14	D8-14	FDG-APE	INV	No	Modified	10416
Comments	Disturbed transitional / saline meadow					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Moist	Alkaline	21-40%	na	na	na
Comment	No water				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	0	0	0	0	<60cm
Comment	Soils/substrates highly mixed by livestock - aquatic snails present in core					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Saline Meadow	Basin Marsh	Linked	Grass	Gs02	2	ne; gc
Swamp	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	4	ts; h; ne; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Agriculture	mature forest	<5%	<5	<5
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Livestock impacts	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-15	D8-15	FDG	INV	No	Modified	826
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Wet	Alkaline	41-70%	135.0	8.2	0.0
Comment					Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Sandy Clay	0	0	0	0	<60cm
Comment	Water to surface					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Mid_Bench	Flat Swamp	Basin Swamp	Tree_Broadleaf	Fm02	3	h; ts; ne
Marsh	Basin Marsh	Linked	Grass	Wm00	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	mature forest	34-66%	<5	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Persistent livestock impacts	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-16	D8-16	FDG	INV	No	Modified	3683
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	3	4 (26-75%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Neutral	41-70%	140.0	7.7	280.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Sandy Clay	0	0	0	0	<60cm
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Moss	Wa	1	m
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tree_Broadleaf	Fl00	2	h; ts
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	mature forest	34-66%	>=5	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Abundant coarse woody debris in basin discouraging livestock	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Garner Pond	D8-17	APE	AP-OTH	Unconfirmed	Modified	14819
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	8 (>95%OW)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Discharge_basi	Sluggish	Very Wet	Alkaline	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Discharge	Submerged_aquatic	Wa	na	na
Marsh	Basin Marsh	Discharge	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Habitat fragmentation	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-18	D8-18	APE	AP	No	Modified	167
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Stagnant	Wet	Alkaline	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Ws05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Moderate	
Comment	Very small wet pocket perched above Garner Pond	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-19	D8-19	APE	INV	No	Constructed	2974
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	3 (5-25% patch)
Comments	Constructed stomwater pond		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
0	Mobile	Wet	Alkaline	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	na	Wm00	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Impervious	Urban_Residential	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	D8-21	APE	AP	Unconfirmed	Constructed	16434
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	8 (>95%OW)
Comments	Golf course pond		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Stagnant	Very Wet	Alkaline	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Marsh	Isolated	Submerged_aquatic	Wa	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Recreational	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	May provide reproductive habitat for spadefoots and chorus frogs	Comment	na

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
D8-22	D8-22	APE	AP	Unconfirmed	Constructed	2132
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	8 (>95%OW)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Stagnant	Very Wet	Very Wet	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Marsh	Isolated	Submerged_aquatic	Wa	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Recreational	na	na	na	na
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	May provide reproductive habitat for spadefoots and chorus frogs	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Michaelbrook	F1-1	FDG-APE	INV	Yes	Modified	70628
Comments	Series of modified wetlands/ditches and constructed basins					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	6	6	5 (26-75%_embaymnts)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	41-70%	430.0	7.8	851.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream Water	Submerged_aquatic	Wa	3	su; re; ne
Flood_Low_Bench	Riparian Swamp	Floodplain Swamp	Tall_shrub_>2-m	Fl03	3	ts; re; h
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re
Marsh	Riparian Marsh	Stream	Tall_rush	Wm06	1	re
Marsh	Riparian Marsh	Floodplain	Grass	Wm00	3	ne ;re; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; f=floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Excellent enhancement opportunities	Comment	Ditching and persistent adjacency isssues

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Wilson Creek Slough	F1-2	FDG-APE	INV	Yes	Modified	2529
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	5	4 (26-75%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Riparian Water	Stream Water	Submerged_aquatic	Wa	na	na
Marsh	Riparian Marsh	Floodplain	Grass	Wm00	na	na
Flood_Low_Bench	Riparian Swamp	Floodplain	Tall_shrub_>2-m	Fl07	na	na

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Capital News Center Marsh	F1-3	FDG-APE	INV	Yes	Constructed	44658
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	5 (26-75%_embaymnts)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream Water	Submerged_aquatic	Wa	1	su
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; f=floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	Despite being constructed, this wetland area is naturalizing

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Cook Road	F1-5	APE	OTH	No	Modified	5300
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; f=floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Impervious	Urban_Residential	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Severely fragmented with marginal function	Comment	

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F1-6	F1-6	APE	OTH	Unconfirmed	Constructed	1930
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	8 (>95%OW)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	na	na
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Landscape feature	Comment	

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	F1-7	APE	OTH	Unconfirmed	Constructed	4294
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	5 (26-75%_embaymnts)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Wet	Alkaline	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	na	na
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; f=floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Medium Impervious	Urban_Residential	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Landscape feature and stomrwater management feature - still wetland functions	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	F1-8	APE	OTH	Unconfirmed	Natural	7768
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	4 (26-75%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Mobi	Very Wet	na	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Floodplain	Submerged_aquatic	Wa	na	n
Flood_Mid_Bench	Riparian Swamp	Floodplain Swamp	Tree_Broadleaf	Fm02	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; f=floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Natural	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
isolated traffic circle wtlnd	F2-1	FDG	INV	No	Modified	912
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	4 (26-75%_central)
Comments	Completely fragmented from adjacent habitats - scraped basin		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Neutral	71-90%	543.0	7.7	1098.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Silty Clay	0		0	na	<60cm
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
High Impervious	Urban_Residential	low shrubs <2m	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	Completely fragmented by roads and cut-off from adjacent wetland areas	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Swamp Rd. Fragment 1	F2-2	FDG	INV	No	Modified	6447
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Very Dynamic	Wet	Alkaline	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Flood_Mid_Bench	Riparian Swamp	Stream	Tree_Broadleaf	Fm02	2	h; ts
Marsh	Slope Marsh	Seepage	Tall_rush	Wm05	2	re; ts

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	low shrubs <2m	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment		Comment	Road encroachment and fragmentation

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	F2-3	FDG	INV	No	Modified	2962
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	1 (<5%)
Comments	Historically riverine prior to Mission Creek diking		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Sluggish	Very Moist	Alkaline	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Riparian Marsh	Seepage	Low_rush	Wm00	2	re; ne
Flood_Low_Bench	Riparian Swamp	Stream	Tall_shrub_>2-m	Fl07	1	ts

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Urban_Residential	low shrubs <2m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	Fragmented by roads and alterred hydrology	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
0	F2-4	FDG-APE	INV	Unconfirmed	Modified	46817
Comments	Connected by surface water flows to Thompson Brook					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	4	6	1 (<5%)
Comments	1 of few organic wetlands identified - very high biodiversity and		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Very Dynamic	Very Wet	Neutral	>90%	469.0	7.8	930.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Mesisol	na	na	na	na	Mesic(VP5-6)	60-160cm
Comment	Moss peat with sandy horizon btn 30-45cm then mesic peat 45-120cm					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Slope Swamp	Seepage	Tall_shrub_>2-m	Ws01	5	ts; ls; gc; re; m
Marsh	Slope Marsh	Seepage	Tall_rush	Wm05	3	re; gc; m
Marsh	Slope Marsh	Seepage	Grass	Wm00	1	ne; re;
Flood_Low_Bench	Slope Swamp	Seepage	Tall_shrub_>2-m	Fl07	4	ts; ls; gc; m

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	mature forest	67-100%	<5	>=5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	At high risk from ditching and road upgrades	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Slough	F2-5	FDG-APE	INV	Unconfirmed	Modified	54134
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	4	6	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	Alkaline	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	Seepage	Tall_rush	Wm05	1	re
Swamp	Slope Swamp	Seepage	Tall_shrub_>2-m	Wm03	3	ts; re; ne; m
Marsh	Slope Marsh	Seepage	Grass	Wm00	1	ne
Flood_Low_Bench	Slope Swamp	Seepage	Tall_shrub_>2-m	Fl07	4	ts; re; ne; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Risks to wetlands from hydrolic alteration and draining and road fragmentation	Comment	

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Swamp	F2-6	FDG-APE	INV	Unconfirmed	Natural	9604
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Very wet	na	na	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [L]
Marsh	Slope marsh	Seepage	Tall_rush	Wm05	na	na

[L] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Swamp	F2-7	APE	INV	Unconfirmed	Natural	2768
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Swamp	Slope swamp	Seepage	Tall_shrub_>2-m	Ws03	na	na

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Swamp	F2-8	FDG-APE	INV	Unconfirmed	Natural	11026
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Very wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope marsh	Seepage	Tall_rush	Wm05	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Swamp	F2-9	APE	INV	Unconfirmed	Natural	82528
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	6	3 (5-25%_patch)
Comments	Cottonwood riparian/floodplain assoc./swamp.		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Wet	Neutral	41-70%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Mid_Bench	Riparian	Floodplain Swamp	Hardwood_treed	Fm02	7	h; hd; ts; gc; re; be; su
Swamp	Riparian Swamp	Stream	Tall_shrub_>2-m	Wm03	na	na
Shallow water	Riparian Water	Stream	Submerged Aquatic	Wa	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Function could be further improved with removal of dike and restoration of Mission Cr. floodplain	Comment	

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Swamp	F2-10	APE	AP	Unconfirmed	Modified	101290
Comments	Access denied to portion of wetland area					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	4	5	1 (<5%)
Comments	Fallowed wet fields, marsh, and swamp		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	Neutral	41-70%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Slope Marsh	Seepage	Tall_rush	Wm05	na	na
Swamp	Slope Swamp		Tall_shrub_>2-m	Ws03	na	na
Flood_Low_Bench	Riparian Swamp	Floodplain	Tall_shrub_>2-m	Fl07	na	na
Marsh	Slope Marsh		Grass	Wm00	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Old fields succeeding back to wetland communtiies	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Pandosy Marsh	F2-11	APE	AP	No	Modified	20955
Comments	Wet horse pasture - Seaonally flooded field					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Sluggish	Wet	na	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Riparian Marsh	Floodplain	Grass	Wm00	na	na

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Agriculture	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	Persistent impacts from grazing	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	F2-12	APE	OTH	Unconfirmed	Modified	19719
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	5	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Sluggish	Wet	na	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Riparian Marsh	Floodplain	Grass	Wm00	na	na
Swamp	Riparian Swamp	Floodplain Swamp	Tall_shrub_>2-m	Ws03	na	na
Flood_Low_Bench	Riparian Swamp	Floodplain	Tree_Broadleaf	Fm02	na	na
Shallow water	Riparian Water	Floodplain	Submerged_aquatic	Wa	na	na

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Relic floodplain water and very moist to wet communities	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F2-13	F2-13	FDG-APE	INV	Yes	Modified	3861
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	4 (26-75%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [L]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	2	su; re
Flood_low_Bench	Riparian	Stream	Tall_shrub	Fl07	2	ts; h

[L] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F2-14	F2-14	FDG-APE	INV	Yes	Modified	4567
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	3 (5-25%_patch)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Swamp	F2-15	APE	INV	No	Natural	17642
Comments	Associated with Priest Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	na
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
0	Dynamic	Moist	na	na	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Mid_Bench			Hardwood_treed	Fm02	3	h; ts; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Swamp	F2-16	APE	INV	Yes	Natural	54704
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	na	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Slope swamp	Seepage	Tall_shrub_>2-m	Ws03	3	ts; ne; su

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F2-17	F2-17	FDG-APE	INV	Unconfirmed	Constructed	661
Comments	Constructed stormwater treatment pond					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	4 (26-75%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
na	na	Very wet	na	na	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	na	na	Tall_rush	Wm05	2	re; ts
Shallow water	na	na	Submerged_aquatic	Wa	1	su

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	Intrinsic value but constructed basin	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Swamp	F2-18	APE	INV	Yes	Natural	14898
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	4	3 (5-25%_patch)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very wet	na	na	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Riparian Marsh	Floodplain	Tall_rush	Wm05	1	re

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	F3-1	APE	AP-INV	Unconfirmed	Modified	36779
Comments	Highly modified poorly defined and dynamic wetland boundary surface water connection to Thompson Bk					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	21-40%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Slope Marsh		Tall_rush	Wm05	3	re; ne; gc
Swamp	Slope Swamp	Seepage	Tall_shrub_>2-m	Wm03	3	ts; re; ne

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Swamp site functional at risk. Wet tall rush-grass meadow non-functioning	Comment	

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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	F4-1	FDG-APE	INV	Yes	Natural	849
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	3 (5-25%_patch)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; su

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	young forest	67-100%	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

ECOSCAPE
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No Photo Available

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	F4-2	FDG-APE	INV	Yes	Natural	872
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	3	re; su; hd

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	mature forest	67-100%	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	

ECOSCAPE
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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
0	F4-3	FDG-APE	INV	Yes	Natural	3314
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	2	3 (5-25%_patch)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [L]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; su
Shallow water	Riparian Water	Stream	Submerged aquatic	Wa	1	su

[L] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Natural	mature forest	67-100%	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	not recently disturbed

ECOSCAPE
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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	F4-4	FDG-APE	INV	No	Natural	828
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	2	re; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	young forest	34-66%	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment		Comment	not recently disturbed

ECOSCAPE
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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
0	F4-5	FDG-APE	INV	Yes	Modified	1675
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	3 (5-25%_patch)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; gc
Shallow water	Riparian Water	Stream	Submerged aquatic	Wa	1	su

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	

ECOSCAPE
Environmental Consultants Ltd.

GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
0	F4-6	FDG	INV	Yes	Modified	313
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	6 (76-95%_central)
Comments	excavated basin in stream channel for livestock		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [L]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	2	su; ne

[L] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Func_at_Risk		High	
Comment		Comment	

ECOSCAPE
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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F4-7	F4-7	FDG	INV	Unconfirmed	Modified	4296
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	1	5 (26-75%_embaymnts)
Comments	Excated basins capturing springs		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Very Wet	Neutral	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Spring	Submerged_aquatic	Wa	1	su
Marsh	Riparian Marsh	Stream	Grass	Wm00	4	ne; re; ls; gc
Flood_Mid_Bench	Riparian Swamp	Stream	Tree_Broadleaf	Fm02	3	h; ls; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	tall shrubs 2-10m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Constructed basins	Comment	Constructed basins

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F5-1	F5-1	FDG	INV	No	Modified	36
Comments	Small riverine/spring wetland pocket in horse paddock					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	Highly disturbed/modified area. However, potential for		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Very Dynamic	Very Wet	Neutral	71-90%	347.0	7.9	692.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	0		0	na	<60cm
Comment	Water table at surface. Appears to be mixed stream and groundwater (spring) hydrology.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Slope Marsh	Spring	Forb	Wm00	3	gc;re;ne

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	tall shrubs 2-10m	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Small wetland pocket - Potential amphibian habitat value	Comment	Mowed/part filled.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F5-2	F5-2	FDG	INV	No	Modified	1302
Comments	Mixed stream/wetland area/defined channel with riverine marsh Riparian/swamp communities					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	4	1 (<5%)
Comments	Associated with small creek.		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Very Dynamic	Wet	Neutral	41-70%	259.0	7.5	517.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Sand	60		0	Mesic(VP5-6)	<60cm
Comment	Organic substrates over groundwater discharge zones/springs					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [L]
Marsh	Spring Marsh	Spring	Forb	Wm00	2	gc;ne
Flood_Mid_Bench			Tree_Broadleaf	Fm02	2	ht;ts

[L] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	34-66%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Marginal functioning conditional	Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F5-3	F5-3	FDG-APE	INV	Unconfirmed	Modified	1522
Comments	Fish observed in Fraser Lake - species not confirmed					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	4	1 (<5%)
Comments	Burnt Cd riparian/red-osier dogwood riparian.		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Moist	Neutral	21-40%	181.0	8.8	363.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Sand	15		0		<60cm
Comment	Stream/aquatic substrates through mainstem with saturated soils in adjacent riparian band					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Flood_Low_Bench	Riparian Swamp		Tree_Broadleaf	Fl07	5	h;hd;ts;ls;g

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	mature forest	67-100%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Treed and thicket swamp/riparian together with abundant snags provide reproductive habitat for cavity nesters	Comment	Natural blowdown post fire. No salvage logging and hazard tree management.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F5-4	F5-4	FDG-APE	INV	Yes	Modified	15444
Comments	Fish observed - ID unknown.					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	5	8 (>95%OW)
Comments	Managed lake/reservoir basin		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Sluggish	Very Wet	Alkaline	>90%	181.0	8.8	363.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	Aquatic substrates					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Linked	Grass	Wm00	2	ne;gc
Flood_Mid_Bench			Tree_Broadlea	Fm02	4	ht;hd;ts;g

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Natural	young forest	34-66%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Moderate	
Comment		Comment	Dammed basin. Constructed lake. Now provides important habitat elements for a diversity of fauna

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F5-5	F5-5	FDG	INV	No	Natural	1858
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	7	3 (5-25%_patch
Comments	Diverse little marsh/swamp wetland unit		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Alkaline	>90%	193.0	7.5	387.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silty Clay	30		0	Fibric(VP1-4	<60cm
Comment	Organic subs. since fire 20cm of burnt wood/moss/sedge. Humified silty clay beneath. C					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Grass	Wm00	5	ne;gc;m;su;re
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	6	ts;hd;ht;ne;gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	young forest	67-100%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Appears to be wetter than in recent years - Reed canary grass in standing water	Comment	Residential encroach to east tob

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F5-6	F5-6	FDG	INV	No	Natural	1544
Comments	Hydrogeologically associated with Rembler Creek.					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	5	1 (<5%)
Comments	Diverse discharge swamp with drainage channels forming downslope through wetland		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Mobile	Wet	Alkaline	41-70%	149.0	7.8	300.0
Comment					Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Loamy Very Fine Sand	30		0		<60cm
Comment	Coarse debrris at 20cm from 2003 wildfires.					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Discharge Swamp	Seepage	Tall_shrub_>2-m	Ws03	5	ts;ht;hd;gc;n
Flood_Low_Bench			Tree_Broadleaf	Fl07	5	ts;ht;hd;gc;n

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	young forest	34-66%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Diverse wetland and riparian communities	Comment	Low anthropogenic disturbance. However area has been impacted by 2003 wildfires.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	F5-7	FDG	INV	No	Modified	207
Comments	Rembler Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	Pooling above check dam with cattails beginning to establish		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
na	na	na	na	na	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
na	na	na	Grass	Gs00	2	ne;gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	no	no
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment		Comment	

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Leon Creek Riparian Bench	F5-8	FDG-APE	INV	No	Modified	4941
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2		
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	Neutral	41-70%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Flood_Low_Bench	Discharge Swamp	Seepage	Tree_Broadleaf	Fl07	4	h; ts; dh; gc
Swamp	Discharge Swamp	Seepage	Tall_shrub_>2-m	Ws03	0	0

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants;

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	tall shrubs 2-10m	67-100%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Development threatens this fragmented community - and mudbogging	Comment	mud-bogging, fire and slavage logging

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
	F5-10	FDG-APE	INV	No	Modified	6981
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	7	1 (<5%)
Comments	Wildfire impacts		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	71-90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Slope Swamp	Drainageway Swamp	Tall_shrub_>2-m	Ws03	7	ts; h; hd; re; ne; be; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	tall shrubs 2-10m	67-100%	>5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment		Comment	2003 Wildfires

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Mallan Springs	F5-11	APE	OTH	Unconfirmed	Natural	4264
Comments						

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	4	1 (<5%)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Very Moist	na	1-20%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment						

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [L]
Swamp	Slope swamp	spring	Tall_shrub_>2-m	Ws01	na	na
Flood_Mid_Bench			Tall_shrub_>2-m	Fm00	na	na

[L] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
na	na	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
na		na	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
na	F5-12	FDG	INV	Yes	Constructed	1170
Comments	Rembler Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	4 (26-75%_central)
Comments			

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	na	>90%	na	na	na
Comment					Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	1	su
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	na	Comment	Naturalizing excavated basin on Rembler Creek

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
0	F5-13	FDG	INV	No	Modified	2530
Comments	Rembler Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Slope Swamp	Drainageway Swamp	Tall_shrub_>2-m	Ws03	1	TS

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
na	F5-14	FDG	INV	No	Modified	1231
Comments	Rembler Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	na	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Slope Swamp	Drainageway Swamp	Tall_shrub_>2-m	Ws03	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
na	F5-15	FDG	INV	No	Constructed	820
Comments	Rembler Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
na	na	na	na
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Wet	na	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	young forest	67-100%	>=5	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	na	Comment	Despite being excavated, not recently disturbed.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F6-1	F6-1	FDG	INV	No	Constructed	197
Comments	Small tributarty flow into excavated basin					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	8 (>95%OW)
Comments	Excavated watering pond		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Alkaline	>90%	84.0	8.2	168.0
Comment	na				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Gleysol	Loamy Very Fine Sand	na	na	na	na	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	2	gc; m

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	na	<5%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		Extreme	
Comment	Constructed - potential enhancemnt area taking advantage of site	Comment	Constructed basin

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F6-2	F6-2	FDG	INV	No	Modified	1900
Comments	Mixed seepage and riverine wetland.					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	6	1 (<5%)
Comments	Mixed seepage and riverine hydraulic regime - all modified by		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Very Dynamic	Very Wet	Alkaline	41-70%	84.0	8.2	161.0
Comment	na				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Coarse Sandy Loam	na	na	na	Mesic(VP5-6)	<60cm
Comment	Sedge/cattail - organic shallow over coarse mineral substrates					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Marsh	Slope Marsh	Seepage	Sedge	Wm00	3	ne; gc; re
Swamp	Discharge Swamp	Seepage	Tall_shrub_>2-m	Ws03	3	ts;gc;h
Marsh	Riparian Marsh	Floodplain	Moss	Wm00	3	m; ne; gc

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	low shrubs <2m	34-66%	>=5	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Early successional; wetland site	Comment	Naturalizing - Maintain hydrology to protect wetland and promote

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Hill Spring	F6-3	FDG	INV	Unconfirmed	Natural	3472
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	4	6	5 (26-75%_embaymnts)
Comments	High biodiversity		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Dynamic	Very Wet	Neutral	>90%	56.0	7.6	115.0
Comment	Mixed groundwater fed and diversion pipe from Bellevuw Creek				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Coarse Sand	0	0	0	Humic(VP7-10)	<60cm
Comment	Aquatic substrates - non soils					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	5	su; f; re; ne; ff
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	3	re; ne; su
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	3	ts; dh; gc
Marsh	Basin Marsh	Linked	Grass	Wm00	3	ne; gc; ls

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Tall Shrubs	Natural	low shrubs <2m	34-66%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Potential adjacent development could compromise function	Comment	Salvage logging

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F6-4	F6-4	FDG	INV	No	Modified	69
Comments	Dry mossy basin					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Wet	Neutral	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Loamy Fine Sand	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Moss	Wm00	3	m; re; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Dry mossy basin - fire impacts and loss of riparian	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F6-5	F6-5	FDG	INV	No	Modified	1439
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	2	2	4 (26-75% central)
Comments	Presently dry central basin		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Wet	Neutral	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Loamy Fine Sand	10	na	na	na	<60cm
Comment	Did not encounter water with corer					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Moss	Wa	1	m
Marsh	Basin Marsh	Linked	Grass	Wm00	1	ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	34-66%	No	<5
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Vernal / ephemeral basin - important reproductive basin for	Comment	Salvage logging has removed riparian community.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F6-6	F6-6	FDG	INV	No	Modified	4726
Comments	1.2 m drawdown below hwl					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	6	6 (76-95% central)
Comments	Alterred hydrology with inputs from Bellevue Creek diversion		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Mobile	Very Wet	Neutral	71-90%	na	7.6	na
Comment	na				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	na	na	na	na	na
Comment	Aquatic substrates					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	2	su; m
Marsh	Basin Marsh	Linked	Tall_rush	Wm05	3	re; ne; m
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	3	ts; dh; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	low shrubs <2m	5-33%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Moderate	
Comment	Significant drawdown period	Comment	Salvage logged to wetland edge

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
F6-7	F6-7	FDG	INV	No	Modified	41
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	2	1 (<5%)
Comments	Modified hydrology from diversion from Belleve Creek, which		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Sluggish	Very Moist	Neutral	21-40%	na	na	na
Comment	no water				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Brunisol	Loam	na	na	na	na	na
Comment	Gleyed brunisol					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Linked	Grass	Wm00	2	ne; re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Disturbed	low shrubs <2m	5-33%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Non_Funct_Cond		High	
Comment	Moisture receiving gully with alterred hydrology promoting	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Mare pond	F6-8	FDG	INV	No	Natural	3527
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	7	4 (26-75%_central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Linked_Basin	Dynamic	Very Wet	Neutral	>90%	90.0	7.4	173.0
Comment	na				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
Humisol	na	na	na	na	Humic(VP7-10)	<60cm
Comment	Mesic to humic moss-peat					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Linked	Submerged_aquatic	Wa	2	su; m
Marsh	Slope Marsh	Seepage	Tall_shrub_>2-m	Wm05	3	re, m; gc
Swamp	Discharge Swamp	Spring	Tall_shrub_>2-m	Ws01	3	ts; hd; gc
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Fl07	1	ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Tall Shrubs	Disturbed	tall shrubs 2-10m	67-100%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	na	Comment	Fire and salvage logging and hydrologic influences from water

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Jack Smith Lake	F6-9	FDG-APE	INV	Yes	Modified	31243
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	8 (>95%OW)
Comments	Alterred hydrology (diversion) maintaining high water levels with		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Dynamic	Very Wet	Neutral	>90%	26.0	7.8	48.0
Comment	na				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [1]
Shallow water	Lacustrine Water	Isolated	Submerged_aquatic	Wa	1	su

[1] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Disturbed	low shrubs <2m	5-33%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	High water level fluctuations inhibit riparian and shore marsh	Comment	Riparian function impaired by significant seasonal drawdowns

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
0	F6-10	FDG-APE	INV	No	Constructed	3318
Comments	Rembler Creek					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	8 (>95%OW)
Comments	Excavated watering pond		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Very Wet	na	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	1	1

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	na	na	na	na
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Cedar Creek	F7-1	APG	INV	Unconfirmed	Modified	1403
Comments	Salvage logging adjacent to site					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Mobile	Very Moist	na	41-70%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	0					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Low_Bench	0	0	Mixed_treed	FI07	0	0

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	young forest	67-100%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	na	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Unknown	G1-2	APE	OTH	Yes	Constructed	2093
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	1	8 (>95%OW)
Comments	Excavated pond		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Sluggish	Very Wet	na	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	na	na	Submerged_aquatic	Wa	1	1

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Natural	mature forest	67-100%	>=5	0
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Constructed however may now provide critical reproductive	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
G3-1	G3-1	FDG	INV	No	Modified	826
Comments	Hydraulic modification - wetland advancemnt into upland sites. Saskatoon and pine now in wetland					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	4	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Wet	Alkaline	71-90%	503.0	7.8	1120.0
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Clay Loam	na	na	na	na	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Basin Marsh	Isolated	Tall_rush	Wm05	4	re; ne; gc; ts

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Agriculture	young forest	<5%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Small poorly drained basin levels perhaps influenced by adjacent	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
G3-2	G3-2	FDG	INV	Unconfirmed	Natural	2013
Comments	Flooded into upland plant communities					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	4	6 (76-95%_central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Mobile	Very Wet	Alkaline	71-90%	724.0	8.4	1410.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	no core too deep to obtain - through hole in ice					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	1	su
Marsh	Basin Marsh	Isolated	Low_rush	Wm06	2	re; ne
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tree_Mixed	Fl07	2	ts; dc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Natural	mature forest	34-66%	>=5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Very_low	
Comment	Modulated hydrology	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
G3-5	G3-5	FDG-APE	INV	No	Natural	4905
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	5	1 (<5%)
Comments	Rumohr Creek riparian and seepage		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Dynamic	Wet	Neutral	71-90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	na	na	na	Fibric(VP1-4)	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Swamp	Riparian Swamp	Riverine Swamp	Tall_shrub_>2-m	Ws03	4	ts; h; ne; gc
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	2	re; gc
Flood_Low_Bench	Riparian Swamp	Stream	Tree_Broadleaf	Fl07	4	h; ts; gc; ne

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	low shrubs <2m	<5%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Despite agricultural encroachments surrounding the unit -	Comment	Agricultural use surrounds

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
G3-6	G3-6	FDG	INV	No	Modified	736
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	3	7 (76-95%_patch)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Isolated_Basin	Sluggish	Very Wet	Alkaline	>90%	225.0	7.9	464.0
Comment	na				Clarity	Colour	
					Turbid	Green_Brown_Turbid	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Basin Water	Isolated	Submerged_aquatic	Wa	2	su; re
Flood_Low_Bench	Flat Swamp	Basin Swamp	Tall_shrub_>2-m	Ws03	1	ts
Marsh	Basin Marsh	Isolated	Tall_rush	Wm06	1	re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Coniferous forest	Agriculture	young forest	34-66%	>=5	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Livestock and garbage	Comment	Intense livestock activity.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
G3-7	G3-7	FDG-APE	INV	Unconfirmed	Modified	1016
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	2	3	8 (>95%OW)
Comments	Series of modified riverine wetlands		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	>90%	342.0	7.7	685.0
Comment	na				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	Fibric(VP1-4)	<60cm
Comment	Aquatic substrates (Oco) to 60cm gravel/sand underlying					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	1	su
Flood_Mid_Bench	Riparian Swamp	Stream	Tree_Broadleaf	Fm02	3	ht; ts; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	mature forest	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Low	
Comment	Historically excavated basin - onstream	Comment	Not recently disturbed

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
G3-8	G3-8	FDG-APE	INV	No	Natural	1403
Comments	na					

BIODIVERSITY			
Number of Wetland	Number of	Number of	Open Water Type
1	1	3	1 (<5%)
Comments	Part of Rumohr Creek wetland complex		

EDATOPIC PARAMETERS							
Hydrogeomorphic	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte	TDS	PH	EC
Palus_Slope_Spring	Sluggish	Very Moist	Neutral	1-20%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Very Fine Sandy	55	45	55	na	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Low_Bench	Riparian Swamp	Floodplain Swamp	Tall_shrub_>2-m	FI02	3	ts; h; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Tall Shrubs	Disturbed	tall shrubs 2-10m	67-100%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Proper_Funct_Cond		Moderate	
Comment	Thicket floodplain / swamp	Comment	Road bisects community fragmenting from Rumohr Creek on

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
G3-9	G3-9	FDG	INV	Unconfirmed	Modified	1877
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
3	3	5	4 (26-75%_central)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Riverine	Very Dynamic	Very Wet	Neutral	41-70%	342.0	7.7	685.0
Comment	Rumohr Creek				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Shallow water	Riparian Water	Stream	Submerged_aquatic	Wa	1	su
Marsh	Riparian Marsh	Stream	Low_rush	Wm01	2	ne; gc
Flood_Mid_Bench	Riparian Swamp	Floodplain Swamp	Tall_shrub_>2-m	Fl03	3	ts; ls; gc

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	mature forest	5-33%	No	No
Comment	na				

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Moderate	
Comment	Constructed basins along stream channel	Comment	Despite construction funtioning as open water communities.

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Creek	G3-10	FDG	INV	No	Modified	5048
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	4	5	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Dynamic	Wet	Neutral	>90%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt	5	na	na	Fibric(VP1-4)	<60cm
Comment	spring					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [l]
Marsh	Spring Marsh	Spring	Forb	Wm00	2	gc; ne
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re
Flood_Low_Bench	Riparian Swamp	Riverine Swamp	Tall_shrub_>2-m	Fl07	3	ts; ls; ne
Flood_Mid_Bench	Riparian Swamp	Floodplain Swamp	Tree_Broadleaf	Fm02	3	ht; ts; gc

[l] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Broadleaf forest	Disturbed	young forest	67-100%	<5	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	Well at spring - developpment encroachment and riparian	Comment	Preserve community

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
G3-11	G3-11	FDG	INV	No	Modified	3475
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
2	3	3	1 (<5%)
Comments	Infiltrates field and ends at west end of polygon despite		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Very Dynamic	Very Wet	Neutral	>90%	414.0	7.7	827.0
Comment	na				Clarity	Colour	
					Clear	Green_Brown	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
HumicGley	Silt	na	na	2	Fibric(VP1-4)	<60cm
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Marsh	Riparian Marsh	Stream	Tall_rush	Wm05	1	re
Marsh	Riparian Marsh	Stream	Sedge	Wm01	1	ne
Marsh	Riparian Marsh	Stream	Forb	Wm00	2	be; re

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Herbs/grasses	Agriculture	low shrubs <2m	<5%	No	No
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		High	
Comment	Livestock/rural impacts	Comment	na

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GENERAL						
Local Name	Numeric Code	Location information	Feature Information	Fish Frequented	Primary Character	Area (m^2)
Casorso Creek	G3-13	APE	INV	No	Natural	1758
Comments	na					

BIODIVERSITY			
Number of Wetland Types	Number of Communities	Number of Vegetation Forms	Open Water Type
1	1	3	1 (<5%)
Comments	na		

EDATOPIC PARAMETERS							
Hydrogeomorphic Group	Hydrodynamic Class	Soil Moisture	Soil Nutrient	Hydrophyte Composition	TDS	PH	EC
Palus_Slope_Spring	Mobile	Very Moist	na	1-20%	na	na	na
Comment	na				Clarity	Colour	
					na	na	

SOILS/SUBSTRATES						
Soil Order	Texture	Depth to Gley	Depth to Mottle	Depth to Water	Organic Class	Organic Depth
na	na	na	na	na	na	na
Comment	na					

WETLAND COMMUNITIES						
Class	Form	Sub-Form	Type	Association	Number of Forms	Vegetation Forms [i]
Flood_Low_Bench	na	na	Tall_shrub_>2-m	Fl07	na	na
Flood_Mid_Bench	na	na	Tree_Broadleaf	Fm02	na	na

[i] h=broadleaf deciduous; ts=tall shrub; ls=low shrub; fo=forb; g=graminoid; ne=narrow-leaved emergent; be=broad-leaved emergent; re=robust emergent; ff=free-floating; floating plants; su=submerged.

SURROUNDING HABITAT					
Class	Qualifier	Stage	Shrubs	Snag	Veteran
Mixed forest	Disturbed	mature forest	67-100%	0	0
Comment					

FUNCTIONAL CONDITION (ECOLOGICAL)		IMPACT RATING	
Funct_At_Risk		Low	
Comment	na	Comment	na

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APPENDIX A
WETLAND INVENTORY
DATA DICTIONARY
(2008)

WIM_Ecoscape_2007

```
POLY_WETLND            Area Feature, Label 1 = WetlndName, Label 2 = Poly_Src
                       Wetland Unit Boundary
   WETLAND_REFERENCE   Separator
   WetlndName          Text, Maximum Length = 100
                       Required, Required
   LocalName           Text, Maximum Length = 100
                       Normal, Normal
   NumericCode         Text, Maximum Length = 50
                       Required, Required
   Organization        Text, Maximum Length = 100
                       Normal, Normal
   WtrshedCde          Numeric, Decimal Places = 0, watershed code
                       Minimum = 0, Maximum = 100, Default Value = 0
                       Normal, Normal
   TributaryCde        Text, Maximum Length = 35, Tributary Code
                       Normal, Normal
   ILP                 Text, Maximum Length = 35, Interim Locator Point (Tributary Code)
                       Normal, Normal
   Date                Date, Auto generate Create, Year-Month-Day Format
                       Required, Required
   Time                Time, Auto generate Create, 24 Hour Format
                       Normal, Normal
   Crew                Text, Maximum Length = 100
                       Required, Required
   Weather             Menu, Normal, Normal
      Light Rain [L]
      Heavy Rain [H]
      Snow/Sleet [N]
      Over cast [OV]
      Clear [S]
      Partly Cloudy [PC]
      Other [O]
   AirTemp             Numeric, Decimal Places = 1, degrees centigrade
                       Minimum = -25, Maximum = 45, Default Value = 0
                       Normal, Normal
   Hydr_Stage          Menu, Normal, Normal
      dry
      low
      moderate
      high
      flood
      other
   Fish_Frequent       Menu, Normal, Normal
      Yes
      No
      Unconfirmed
   Poly_Type           Menu, Normal, Normal
      Trimble   Default
      Garmin
      Photointerp
      Chain_Compass
      Other
   Poly_Src            Menu, Normal, Normal
      WIM_Ecoscape_2007
      shim2006
      shim4
      shim3
      shim2
      shim1
      trim
      DFO
      other
   Comments            Text, Maximum Length = 100
                       Normal, Normal
   ____________________      Separator
   REF_PHOTO           Text, Maximum Length = 100, Roll and print number of photograph
                       Normal, Normal
   ____________________      Separator
   BIODIVERSITY        Separator
   Primary Character   Menu, Required, Required, State of stream section
      Natural [N]
      Modified [Md]
      Constructed [CON]
```

```
   Storm_Pond [SP]
   Ditch [FRT]
   Other [O]
No_Types            Numeric, Decimal Places = 0, No of Wetland Types in Unit
                    Minimum = 1, Maximum = 25, Default Value = 1
                    Normal, Normal
No_Comms            Numeric, Decimal Places = 0, No of Communities in Unit
                    Minimum = 1, Maximum = 25, Default Value = 1
                    Normal, Normal
No_Veg_Forms        Numeric, Decimal Places = 0
                    Minimum = 0, Maximum = 16, Default Value = 1
                    Normal, Normal
OW_Type             Menu, Normal, Normal
   1 (<5%) [1]
   2 (5-25%_central) [2]
   3 (5-25%_patch) [3]
   4 (26-75%_central) [4]
   5 (26-75%_embaymnts) [5]
   6 (76-95%_central) [6]
   7 (76-95%_patch) [7]
   8 (>95%OW) [8]
Interspertion       Numeric, Decimal Places = 0, ecotone edge
                    Minimum = 0, Maximum = 1000, Default Value = 999
                    Normal, Normal
Complex             Menu, Normal, Normal, Mutiple Wetland Units
   Yes [1]
   No [0]
Comt_Biodiv         Text, Maximum Length = 100
                    Normal, Normal
____________________      Separator
HYDROGEO_GROUP      Separator
Hydrogeo_Group      Menu, Normal, Normal, Hydrogeomorphic Group
   Estuarine [ES]
   Riverine [Ri]
   Lacustrine [LA]
   Palus_Isolated_Basin [IsoBas]
   Palus_Linked_Basin [LinBas]
   Palus_Discharge_basi [Dischr]
   Palus_Slope_Spring [Slo]
____________________      Separator
WETLAND_EDATO_GRID  Separator
Hydrodyna           Menu, Normal, Normal, Dominant hydraulic type
   Stagnant [ST]
   Sluggish [SL]
   Mobile [MO]
   Dynamic [DY]
   Very Dynamic [DV]
   Other [O]
Soil_Moisture       Menu, Normal, Normal
   Moist [MO]
   Very Moist [MV]
   Wet [W]
   Very Wet [WV]
Soil_Nutr_Reg       Menu, Normal, Normal
   Very Acid [VA]
   Mod Acid [MA]
   Slight Acid [SA]
   Neutral [N]
   Alkaline [AK]
Hydrophyt_Comp      Menu, Normal, Normal, Percent Hydophyte Cover
   0 [0]
   1-20% [1]
   21-40% [2]
   41-70% [3]
   71-90% [4]
   >90% [5]
____________________      Separator
WATER_CHEM          Separator
Water_Temp          Numeric, Decimal Places = 1, degrees celsius
                    Minimum = -2, Maximum = 99, Default Value = 99
                    Normal, Normal
TDS                 Numeric, Decimal Places = 1, Total Dissolved Solids (mg/L)
                    Minimum = 0, Maximum = 9999, Default Value = 9999
                    Normal, Normal
pH                  Numeric, Decimal Places = 1
                    Minimum = 0, Maximum = 99, Default Value = 99
```

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                    Normal, Normal
DO                  Numeric, Decimal Places = 1, Dissolved Oxygen (mg/L)
                    Minimum = 0, Maximum = 99, Default Value = 99
                    Normal, Normal
EC                  Numeric, Decimal Places = 1, Conductivity
                    Minimum = 0, Maximum = 9999, Default Value = 9999
                    Normal, Normal
Clarity             Menu, Normal, Normal
   Very Turbid [TV]
   Clear [C]
   Very Clear [CV]
   Turbid [T]
   Other [O]
Colour              Menu, Normal, Normal
   Yellow_DeepBrown [YB]
   Green_Brown [GB]
   Blue_Green [BG]
   Green_Brown_Turbid [GBT]
   Colourless [CS]
Comt_Chem           Text, Maximum Length = 100
                    Normal, Normal
____________________      Separator
SOILS               Separator
Soil_Order          Menu, Normal, Normal, Wetland_Soil_Class
   Gleysol [Gl]
   HumicGley [Hu]
   Regogley [Regl]
   Fibrisol [Fi]
   Mesisol [Me]
   Humisol [HuSol]
   Folisol [Fo]
   Regosol [Re]
   Brunisol [Br]
   Solonetzic [So]
   Chernozemic [Ch]
Texture             Menu, Normal, Normal, Soil Texture
   Coarse Sand [CS]
   Sand [SA]
   Fine Sand [FS]
   Very Fine Sand [VFS]
   Loamy Sand [LS]
   Loamy Coarse Sand [LCS]
   Loamy Fine Sand [LFS]
   Loamy Very Fine Sand [LVFS]
   Coarse Sandy Loam [CSL]
   Sany Loam [SL]
   Fine Sandy Loam [FSL]
   Very Fine Sandy Loam [VFSL]
   Loam [Lo]
   Sandy Clay Loam [SCL]
   Clay Loam [CL]
   Silt [Si]
   Silt Loam [SiL]
   Silty Clay Loam [SiCL]
   Silty Clay [SiC]
   Sandy Clay [SaC]
   Clay [Cl]
Dep_to_Gley         Numeric, Decimal Places = 1, Unit (cm)
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
Dep_to_Mottles      Numeric, Decimal Places = 1, Unit (cm)
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
Dep_to_Water        Numeric, Decimal Places = 2, Unit (cm)
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
Orga_Class          Menu, Normal, Normal, Level of decomposition
   Fibric(VP1-4) [Fi]
   Mesic(VP5-6) [Me]
   Humic(VP7-10) [H]
   Mineral [Mi]
Dep_Organic         Menu, Normal, Normal, Level of substrate compaction
   <60cm
   60-160cm
   >160cm
Comt_Sub            Text, Maximum Length = 100, Comment for Substrates
```

```
                    Normal, Normal
____________________      Separator
SOIL_PROFILE        Separator
Of_Thicknss         Numeric, Decimal Places = 1, Unit (cm)
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
Om_Thicknss         Numeric, Decimal Places = 1, Unit (cm)
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
Oh_Thicknss         Numeric, Decimal Places = 1, Unit (cm)
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
Oco_Thicknss        Numeric, Decimal Places = 1, Unit (cm)
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
A_Thicknss          Numeric, Decimal Places = 1, Unit (cm)
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
E_Thicknss          Numeric, Decimal Places = 1
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
B_Thicknss          Numeric, Decimal Places = 1
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
Dep_to_C            Numeric, Decimal Places = 1
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
Dep_to_Bedrock      Numeric, Decimal Places = 1
                    Minimum = 0, Maximum = 999, Default Value = 999
                    Normal, Normal
Photo_Soil_Core     Text, Maximum Length = 100, Roll and print number of photograph
                    Normal, Normal
Comt_Profile        Text, Maximum Length = 100, Comment for Substrates
                    Normal, Normal
____________________      Separator
WETLND_CLS_1        Separator
Class1              Menu, Normal, Normal
   Shallow water
   Marsh
   Swamp
   Fen
   Bog
   Flood_High_Bench
   Flood_Mid_Bench
   Flood_Low_Bench
   Shrub Carr
   Saline Meadow
Form1               Menu, Normal, Normal
   Discharge Swamp
   Flat Swamp
   Mineral-Rise Swamp
   Riparian Swamp
   Slope Swamp
   Basin Marsh
   Hummock Marsh
   Lacustrine Marsh
   Riparian Marsh
   Slope Marsh
   Spring Marsh
   Basin Water
   Lacustrine Water
   Riparian Water
Subfrm1             Menu, Normal, Normal
   Floodplain
   Delta
   Isolated
   Linked
   Bay
   Lagoon
   Shore
   Stream
   Discharge
   Spring
   Seepage
   Slope
   Basin Swamp
```

```
   Unconfined Swamp
   Swale Swamp
   Floodplain Swamp
   Channel Swamp
   Lacustrine Swamp
   Riverine Swamp
   Beach Ridge Swamp
   Island Swamp
   Levee Swamp
   Mound Swamp
   Floodplain Water
   Shore Water
   Stream Water
Type1               Menu, Normal, Normal
   Floating_aquatic
   Submerged_aquatic
   Forb
   Grass
   Low_rush
   Reed
   Sedge
   Tall_rush
   Lichen
   Moss
   Non_vegetated
   Low_Shrub_<2-m
   Mixed_shrub
   Tall_shrub_>2-m
   Tree_Conifer
   Tree_Mixed
   Tree_Broadleaf
Assocn1             Menu, Normal, Normal
   Wm01
   Wm02
   Wm03
   Wm04
   Wm05
   Wm06
   Wm07
   Wm51
   Ws01
   Ws02
   Ws03
   Ws04
   Ws05
   Ws06
   Ws07
   Ws09
   Ws10
   Ws50
   Ws51
   Wa
   Fl01
   Fl02
   Fl03
   Fl04
   Fl05
   Fl06
   Fl07
   Fm01
   Fm02
   Gs01
   Gs02
   Gs03
   Gs04
   RCG
   Gs00
   Wm00
   Ws00
Prcnt_Cvr           Numeric, Decimal Places = 0
                    Minimum = 0, Maximum = 16, Default Value = 1
                    Required, Normal
No_Frms1            Numeric, Decimal Places = 0
                    Minimum = 0, Maximum = 16, Default Value = 1
                    Normal, Normal
Veg_Frms1           Text, Maximum Length = 100
```

```
                    Normal, Normal
Dom_Veg1            Text, Maximum Length = 100, Two Dominant species per form
                    Normal, Normal
Comt_Unit1          Text, Maximum Length = 100, Comments for Unit
                    Normal, Normal
____________________      Separator
WETLND_CLS_2        Separator
Class2              Menu, Normal, Normal
   Shallow water
   Marsh
   Swamp
   Fen
   Bog
   Flood_High_Bench
   Flood_Mid_Bench
   Flood_Low_Bench
   Shrub Carr
   Saline Meadow
Form2               Menu, Normal, Normal
   Discharge Swamp
   Flat Swamp
   Mineral-Rise Swamp
   Riparian Swamp
   Slope Swamp
   Basin Marsh
   Hummock Marsh
   Lacustrine Marsh
   Riparian Marsh
   Slope Marsh
   Spring Marsh
   Basin Water
   Lacustrine Water
   Riparian Water
Subfrm2             Menu, Normal, Normal
   Floodplain
   Delta
   Isolated
   Linked
   Bay
   Lagoon
   Shore
   Stream
   Discharge
   Spring
   Seepage
   Slope
   Basin Swamp
   Unconfined Swamp
   Swale Swamp
   Floodplain Swamp
   Channel Swamp
   Lacustrine Swamp
   Riverine Swamp
   Beach Ridge Swamp
   Island Swamp
   Levee Swamp
   Mound Swamp
   Floodplain Water
   Shore Water
   Stream Water
Type2               Menu, Normal, Normal
   Floating_aquatic
   Submerged_aquatic
   Forb
   Grass
   Low_rush
   Reed
   Sedge
   Tall_rush
   Lichen
   Moss
   Non_vegetated
   Low_Shrub_<2-m
   Mixed_shrub
   Tall_shrub_>2-m
   Tree_Conifer
```

```
   Tree_Mixed
   Tree_Broadleaf
Assocn2             Menu, Normal, Normal
   Wm01
   Wm02
   Wm03
   Wm04
   Wm05
   Wm06
   Wm07
   Wm51
   Ws01
   Ws02
   Ws03
   Ws04
   Ws05
   Ws06
   Ws07
   Ws09
   Ws10
   Ws50
   Ws51
   Wa
   Fl01
   Fl02
   Fl03
   Fl04
   Fl05
   Fl06
   Fl07
   Fm01
   Fm02
   Gs01
   Gs02
   Gs03
   Gs04
   RCG
   Gs00
   Wm00
   Ws00
Prcnt_Cvr           Numeric, Decimal Places = 0
                    Minimum = 0, Maximum = 16, Default Value = 1
                    Required, Normal
No_Frms2            Numeric, Decimal Places = 0
                    Minimum = 0, Maximum = 16, Default Value = 1
                    Normal, Normal
Veg_Frms2           Text, Maximum Length = 100
                    Normal, Normal
Dom_Veg2            Text, Maximum Length = 100, Two Dominant species per form
                    Normal, Normal
Comt_Unit2          Text, Maximum Length = 100, Comments for Unit
                    Normal, Normal
____________________      Separator
WETLND_CLS_3        Separator
Class3              Menu, Normal, Normal
   Shallow water
   Marsh
   Swamp
   Fen
   Bog
   Flood_High_Bench
   Flood_Mid_Bench
   Flood_Low_Bench
   Shrub Carr
   Saline Meadow
Form3               Menu, Normal, Normal
   Discharge Swamp
   Flat Swamp
   Mineral-Rise Swamp
   Riparian Swamp
   Slope Swamp
   Basin Marsh
   Hummock Marsh
   Lacustrine Marsh
   Riparian Marsh
   Slope Marsh
```

```
   Spring Marsh
   Basin Water
   Lacustrine Water
   Riparian Water
Subfrm3             Menu, Normal, Normal
   Floodplain
   Delta
   Isolated
   Linked
   Bay
   Lagoon
   Shore
   Stream
   Discharge
   Spring
   Seepage
   Slope
   Basin Swamp
   Unconfined Swamp
   Swale Swamp
   Floodplain Swamp
   Channel Swamp
   Lacustrine Swamp
   Riverine Swamp
   Beach Ridge Swamp
   Island Swamp
   Levee Swamp
   Mound Swamp
   Floodplain Water
   Shore Water
   Stream Water
Type3               Menu, Normal, Normal
   Floating_aquatic
   Submerged_aquatic
   Forb
   Grass
   Low_rush
   Reed
   Sedge
   Tall_rush
   Lichen
   Moss
   Non_vegetated
   Low_Shrub_<2-m
   Mixed_shrub
   Tall_shrub_>2-m
   Tree_Conifer
   Tree_Mixed
   Tree_Broadleaf
Assocn3             Menu, Normal, Normal
   Wm01
   Wm02
   Wm03
   Wm04
   Wm05
   Wm06
   Wm07
   Wm51
   Ws01
   Ws02
   Ws03
   Ws04
   Ws05
   Ws06
   Ws07
   Ws09
   Ws10
   Ws50
   Ws51
   Wa
   Fl01
   Fl02
   Fl03
   Fl04
   Fl05
   Fl06
```

```
   Fl07
   Fm01
   Fm02
   Gs01
   Gs02
   Gs03
   Gs04
   RCG
   Gs00
   Wm00
   Ws00
Prcnt_Cvr           Numeric, Decimal Places = 0
                    Minimum = 0, Maximum = 16, Default Value = 1
                    Required, Normal
No_Frms3            Numeric, Decimal Places = 0
                    Minimum = 0, Maximum = 16, Default Value = 1
                    Normal, Normal
Veg_Frms3           Text, Maximum Length = 100
                    Normal, Normal
Dom_Veg3            Text, Maximum Length = 100, Two Dominant species per form
                    Normal, Normal
Comt_Unit3          Text, Maximum Length = 100, Comments for Unit
                    Normal, Normal
____________________      Separator
WETLND_CLS_4        Separator
Class4              Menu, Normal, Normal
   Shallow water
   Marsh
   Swamp
   Fen
   Bog
   Flood_High_Bench
   Flood_Mid_Bench
   Flood_Low_Bench
   Shrub Carr
   Saline Meadow
Form4               Menu, Normal, Normal
   Discharge Swamp
   Flat Swamp
   Mineral-Rise Swamp
   Riparian Swamp
   Slope Swamp
   Basin Marsh
   Hummock Marsh
   Lacustrine Marsh
   Riparian Marsh
   Slope Marsh
   Spring Marsh
   Basin Water
   Lacustrine Water
   Riparian Water
Subfrm4             Menu, Normal, Normal
   Floodplain
   Delta
   Isolated
   Linked
   Bay
   Lagoon
   Shore
   Stream
   Discharge
   Spring
   Seepage
   Slope
   Basin Swamp
   Unconfined Swamp
   Swale Swamp
   Floodplain Swamp
   Channel Swamp
   Lacustrine Swamp
   Riverine Swamp
   Beach Ridge Swamp
   Island Swamp
   Levee Swamp
   Mound Swamp
   Floodplain Water
```

```
   Shore Water
   Stream Water
Type4               Menu, Normal, Normal
   Floating_aquatic
   Submerged_aquatic
   Forb
   Grass
   Low_rush
   Reed
   Sedge
   Tall_rush
   Lichen
   Moss
   Non_vegetated
   Low_Shrub_<2-m
   Mixed_shrub
   Tall_shrub_>2-m
   Tree_Conifer
   Tree_Mixed
   Tree_Broadleaf
Assocn4             Menu, Normal, Normal
   Wm01
   Wm02
   Wm03
   Wm04
   Wm05
   Wm06
   Wm07
   Wm51
   Ws01
   Ws02
   Ws03
   Ws04
   Ws05
   Ws06
   Ws07
   Ws09
   Ws10
   Ws50
   Ws51
   Wa
   Fl01
   Fl02
   Fl03
   Fl04
   Fl05
   Fl06
   Fl07
   Fm01
   Fm02
   Gs01
   Gs02
   Gs03
   Gs04
   RCG
   Gs00
   Wm00
   Ws00
Prcnt_Cvr           Numeric, Decimal Places = 0
                    Minimum = 0, Maximum = 16, Default Value = 1
                    Required, Normal
No_Frms4            Numeric, Decimal Places = 0
                    Minimum = 0, Maximum = 16, Default Value = 1
                    Normal, Normal
Veg_Frms4           Text, Maximum Length = 100
                    Normal, Normal
Dom_Veg4            Text, Maximum Length = 100, Two Dominant species per form
                    Normal, Normal
Comt_Unit4          Text, Maximum Length = 100, Comments for Unit
                    Normal, Normal
____________________      Separator
WETLND_CLS_5        Separator
Class5              Menu, Normal, Normal
   Shallow water
   Marsh
   Swamp
```

```
   Fen
   Bog
   Flood_High_Bench
   Flood_Mid_Bench
   Flood_Low_Bench
   Shrub Carr
   Saline Meadow
Form5               Menu, Normal, Normal
   Discharge Swamp
   Flat Swamp
   Mineral-Rise Swamp
   Riparian Swamp
   Slope Swamp
   Basin Marsh
   Hummock Marsh
   Lacustrine Marsh
   Riparian Marsh
   Slope Marsh
   Spring Marsh
   Basin Water
   Lacustrine Water
   Riparian Water
Subfrm5             Menu, Normal, Normal
   Floodplain
   Delta
   Isolated
   Linked
   Bay
   Lagoon
   Shore
   Stream
   Discharge
   Spring
   Seepage
   Slope
   Basin Swamp
   Unconfined Swamp
   Swale Swamp
   Floodplain Swamp
   Channel Swamp
   Lacustrine Swamp
   Riverine Swamp
   Beach Ridge Swamp
   Island Swamp
   Levee Swamp
   Mound Swamp
   Floodplain Water
   Shore Water
   Stream Water
Type5               Menu, Normal, Normal
   Floating_aquatic
   Submerged_aquatic
   Forb
   Grass
   Low_rush
   Reed
   Sedge
   Tall_rush
   Lichen
   Moss
   Non_vegetated
   Low_Shrub_<2-m
   Mixed_shrub
   Tall_shrub_>2-m
   Tree_Conifer
   Tree_Mixed
   Tree_Broadleaf
Assocn5             Menu, Normal, Normal
   Wm01
   Wm02
   Wm03
   Wm04
   Wm05
   Wm06
   Wm07
   Wm51
```

   Ws01
   Ws02
   Ws03
   Ws04
   Ws05
   Ws06
   Ws07
   Ws09
   Ws10
   Ws50
   Ws51
   Wa
   Fl01
   Fl02
   Fl03
   Fl04
   Fl05
   Fl06
   Fl07
   Fm01
   Fm02
   Gs01
   Gs02
   Gs03
   Gs04
   RCG
   Gs00
   Wm00
   Ws00
Prcnt_Cvr Numeric, Decimal Places = 0
           Minimum = 0, Maximum = 16, Default Value = 1
           Required, Normal
No_Frms5   Numeric, Decimal Places = 0
           Minimum = 0, Maximum = 16, Default Value = 1
           Normal, Normal
Veg_Frms5 Text, Maximum Length = 100
           Normal, Normal
Dom_Veg5   Text, Maximum Length = 100, Two Dominant species per form
           Normal, Normal
Comt_Unit5 Text, Maximum Length = 100, Comments for Unit
           Normal, Normal
_____   Separator
SURROUND_HABITAT Separator
RipClass   Menu, Required, Required, Riparian Class
   Row Crops [NAG]
   Broadleaf forest [VBF]
   Bryophytes [VCR]
   Coniferous forest [VNF]
   Planted Tree Farm [NTF]
   Disturbed wetland [DWN]
   Dug out pond [DOP]
   Exposed soil [NEL]
   Flood plain [VFP]
   Herbs/grasses [VHB]
   High Impervious [NHR]
   Medium Impervious [NMR]
   Low Impervious [NLR]
   Mixed forest [VMF]
   Natural wetland [WN]
   Rock [NNB]
   Tall Shrubs [VTSH]
   Low shrub [VTLS]
Qualifier Menu, Normal, Normal, Riparian Class Qualifier
   Agriculture [ag]
   Natural [n]
   Urban_Residential [ur]
   Recreation [r]
   Disturbed [d]
   Unknown [u]
BandWidth Numeric, Decimal Places = 2
           Minimum = 0, Maximum = 9999, Default Value = 9999
           Normal, Normal
BankSlope Numeric, Decimal Places = 0
           Minimum = -100, Maximum = 999, Default Value = 999
           Normal, Normal
Stage   Menu, Normal, Normal, Structural Stage

```
    grass/herb [2]
    low shrubs <2m [3a]
    tall shrubs 2-10m [3b]
    sapling >10m [4]
    young forest [5]
    mature forest [6]
    old forest [7]
  Shrubs              Menu, Normal, Normal, Density of shrubs
    <5% [VL]
    5-33% [L]
    34-66% [M]
    67-100% [H]
  Snag                Menu, Normal, Normal, Presence of Snags
    No
    <5
    >=5
  Veteran             Menu, Normal, Normal, Veteran trees
    No
    <5
    >=5
  BkStbility          Menu, Normal, Normal, Bank Stability
    High [H]
    Medium [M]
    Low [L]
  Bank_Material       Menu, Normal, Normal
    Concrete [C]
    Gabions [GB]
    Pilings [P]
    Stonework [S]
    RipRap [RR]
    Retain Wall/Bank Stb [EHB]
    Sandbags [SB]
    Wood [W]
    Bark_Mulch [BM]
    Asphalt [AS]
    Dyke [DY]
    Fines [F]
    Gravel [G]
    Cobble [CB]
    Boulder [B]
    Bed_Rock [BR]
    Other [O]
  Top_Bank            Menu, Normal, Normal, Estimated top of bank
    Yes
    No
  Comment             Text, Maximum Length = 100, Comment Left bank riparian
                      Normal, Normal
  ____________________      Separator
  FLORA_FAUNA         Separator
  CmmntFlora          Text, Maximum Length = 100, Flora Comment
                      Normal, Normal
  CmmntFauna          Text, Maximum Length = 100, Fauna Comment
                      Normal, Normal
  ____________________      Separator
  FUNCTI_COND         Separator
  Functional_Rating   Menu, Required, Required
    Proper_Funct_Cond [0]
    Funct_At_Risk [1]
    Non_Funct_Cond [2]
  Comt_Func_Rating    Text, Maximum Length = 100
                      Normal, Normal
  ____________________      Separator
  LEVEL_OF_IMPACT     Separator
  Impact_rating       Menu, Required, Required
    Nil [0]
    Very_low [1]
    Low [2]
    Moderate [3]
    High [4]
    Extreme [5]
  LOI_Comment         Text, Maximum Length = 100, Comment_lev_impact
                      Normal, Normal

POLY_WETLND           Line Feature, Label 1 = WetlndName, Label 2 = Poly_Src
                      Wetland Unit Boundary
  WETLAND_REFERENCE   Separator
```

APPENDIX B
DATA DICTIONARY KEY and GLOSSARY of TERMS

(Adapted from Mackenzie and Moran (2004) and Warner, B.G., and C.D.A. Rubec. 1997)

Classification key to swamp wetland forms and sub-forms

Not influenced by tidal water	Form	Sub-form
Topographically flat or slightly concave, water flowing into the middle of the basin, in topographically defined basins, kettle holes, swales and extensive peatlands	Flat Swamp	
Confined depressions with distinct slopes to the side of the basin Formed on glacial deposits such as kettle holes, eskers, moraines		Basin Swamp
Along lakes, rivers and streams, with high water level fluctuations and periodic flooding	Riparian Swamp	
Along lakes as zones usually landward from marsh or fen		Lacustrine Swamp
Along rivers, streams and abandoned stream or river channels Adjacent to rivers or streams		Riverine Swamp
Not immediately adjacent to flowing water, in cutoff channels, or on floodplain behind levees In a floodplain		Floodplain Swamp
In or along a cutoff river channel, including oxbows		Channel Swamp
With sloping topography, in unconfined expanses, confined drainageways or water tracks	Slope Swamp	
Sloping swamps in water tracks or drainageways with distinct peat banks, sometimes with small, intermittent channels flowing on them Occurring in water tracks or drainageways		Drainageway Swamp
Groundwater discharge sites	Discharge Swamp	
Springs with obvious upwelling water, small streams		Spring Swamp
Seepage sites, no obvious upwelling water		Seepage Swamp

Classification key to marsh wetland forms and sub-forms

Not influenced by tides; subject to periodic inundation and water level fluctuations (fresh, brackish or saline water)	Form	Sub-form
Situated in valleys and drainage channels with or without flowing water; water level fluctuations and flooding	Riparian Marsh	
Situated in river and stream channels, or adjacent to water courses; influenced by continuous or intermittently flowing water		
Situated along streams		Riparian Stream Marsh
Situated on alluvial plains or terraces along river and stream valleys; water is from overbank flooding and surface runoff		Riparian Floodplain Marsh
Situated on the margins of permanent lakes which may have stream inlets and outlets; subject to periodic flooding and increases in water levels by wind seiches and wave action	Lacustrine Marsh	
Situated on the shore of lakes and other permanent open water bodies, often grading into deep water		Lacustrine Shore Marsh
Situated in shallow bays adjacent to lakes; exposed to wave action		Lacustrine Bay Marsh
Not in contact with open water from adjacent lake		
Situated in semi-closed basins behind barrier beaches or bar adjacent to lake; protected from direct wave action; subject to increases in lake level		Lacustrine Lagoon Marsh
Not situated along the shores of deep and large lakes; confined to topographically defined basins and shallow depressions that collect surface runoff and receive groundwater seepage; water fresh and saline	Basin Marsh	
Situated in interconnected shallow depressions that receive intermittent surface and groundwater inflow and drain via seepage; outflows or overland flows during periods of highwater		Linked Basin Marsh
Situated in closed shallow depressions that collect surface runoff and drain via seepage outflow		Isolated Basin Marsh
Situated in flat terrain, kettle basins or sinkholes; occurrence on the downslopes of groundwater discharge zones; usually permanent discharge of water with little change in water levels except in the semi-arid Continental Prairie Wetland Region		Discharge Basin Marsh
Situated on sloping terrain Situated on slopes with a single point source of groundwater discharge, drainage channels and pools are common	Spring Marsh	
Situated on slopes with diffuse groundwater discharge, occurrence largely as saturated soil	Slope Marsh	

Classification key to shallow water forms and sub-forms

Not influenced by tides; water is from channelized flow, runoff, precipitation and groundwater; water levels fluctuate seasonally or at irregular intervals; water is usually fresh	Form	Sub-form
Situated on deltas and along rivers and streams	Riparian Water	
Water continuously flowing; situated along streams		Riparian Stream Water
Intermittent flow; water usually restricted to overbank flow; high water table; situated in impoundments behind ridges, levees on alluvial plains		
Situated on river floodplains	Riparian Floodplain Water	
Situated on stream deltas		Riparian Delta Water
Situated along the margins and shores of lakes and other permanent open water bodies		
Situated in shallow offshore areas of permanent lakes	Lacustrine Water	
Situated on open lakeshore and offspring zones		Lacustrine Shore Water
Situated in semi-enclosed basins, usually behind barrier beach bars		Lacustrine Lagoon Water
Situated in topographically defined basins, water is fresh or saline	Basin Water	
Basin situated in non-permafrost terrain		
Situated in catchments in topographic low positions; water is from surface runoff precipitation and groundwater discharge; with no outflow		Discharge Basin Water
Situated in well-defined basins with inlets and with or without outlets		
Situated in well-defined basins with inflowing and outflowing streams		Linked Basin Water
Situated in isolated, well-defined basins with or without inflowing stream but no outflowing stream		Isolated Basin Water

WETLAND CLASSES AND WETLAND SITE ASSOCIATIONS (B.C. CLASSIFICATION SYSTEM)

MARSH WETLAND CLASS (Wm)

A marsh is a shallowly flooded mineral wetland dominated by emergent grass-like vegetation. A fluctuating watertable is typical in marshes, with early-season high watertables dropping through the growing season. Exposure of the substrates in late season or during dry years is common. The substrate is usually mineral, but may have a well-decomposed organic veneer derived primarily from marsh emergents. Nutrient availability is high (eutrophic to hyper-eutrophic) due to circum-neutral pH, water movement, and aeration of the substrate.

Site Associations

Wm00: Reed Canary Grass
Wm00: Mixed grass – Forb
Wm03: Awned Sedge
Wm05: Cattail
Wm06: Great bulrush

SWAMP WETLAND CLASS (Ws)

A swamp is a forested, treed, or tall-shrub, mineral wetland dominated by trees and broadleaf shrubs on sites with a flowing or fluctuating, semipermanent, near-surface water table. Tall-shrub swamps are dense thickets, while forested swamps have large trees occurring on elevated microsites and lower cover of tall deciduous shrubs. Both types of swamps have abundant available nutrients from groundwater and often have surface standing water. Swamps may be underlain with peat but this is well decomposed, woody and dark.

Site Associations

Ws01: Mountain alder – Skunk cabbage – Lady fern
Ws03: Bebb's willow – Bluejoint

SHALLOW-WATER (AQUATIC) WETLAND CLASS (Wa)

Aquatic wetlands are shallow waters dominated by rooted, submerged and floating aquatic plants. Theses communities are always associated with permanent still or slow-moving waterbodies such as shallow potholes or deeper ponds and lakes. Shallow-water sites are usually permanently flooded; rarely they may become exposed during extreme drought years. Shallow-water communities most commonly occur where standing water is less than 2 m deep in midsummer. Aquatic plants may root in mineral soils or in well-humified sedimentary peat.

SALINE MEADOW TRANSITION CLASS (Gs)

Saline meadows are grass-, rush-, or halophyte-dominated sites that occur on periodically saturated and occasionally inundated sites, where watertable decline is caused mainly by evaporation or where salts accumulate. These conditions occur only in dry climates. After a brief period of inundation, the watertable drops below the rooting zone during most of the growing season, resulting in a well-aerated rooting mechanism. These ecosystems are part of a Grassland Group of terrestrial ecosystems.

Site Associations

Gs00: Canada thistle – Silverweed
Gs01: Alkali saltgrass
Gs02: Nuttall's alkaligrass – Foxtail barley
Gs03: Field Sedge

LOW BENCH FLOOD CLASS (Fl)

Low bench ecosystems occur on sites that are flooded for moderate periods (< 40 days) of the growing season, conditions that limit the canopy to tall shrubs, especially willows and alders. Annual erosion and deposition of sediment generally limit understorey and humus development.

Site Associations

Fl02: Mountain alder – Red-osier dogwood – Lady fern
Fl03: Pacific willow – Red-osier dogwood – Horsetail
Fl07: Water birch – Rose

MIDDLE BENCH FLOOD CLASS (Fm)

Middle bench ecosystems occur on sites briefly flooded (10-25 days) during freshet, allowing tree growth but limiting tree species to only flood-tolerant broadleaf species such as black cottonwood and red alder.

Site Associations

Fm02: Cottonwood – Spruce – Red-osier dogwood

WETLAND TYPES

Aquatic
Coniferous Treed
Floating
Forb
Grass
Hardwood Treed
Low Rush
Low Shrub
Mixed Shrub
Mixed treed
Moss
Non-Vegetated
Reed
Sedge
Tall Rush
Tall Shrub

VEGETATION FORMS AND DATA SYMBOLS

Vegetation Forms	Symbol
Deciduous trees (broad-leaved)	h
Coniferous trees (needle-leaved)	c
Dead trees	dh, dc
Tall shrubs	ts
Low shrubs	ls
Dead shrubs	ds
Herbs	gc
Moss	m
Narrow-leaved emergents	ne
Broad-leaved emergents	be
Robust emergents	re
Free-floating plants	ff
Floating plants (rooted)	f
Submerged plants	su

HYDROGEOMORPHIC GROUPS

The hydrogeomorphic group, for the purpose of this inventory and mapping exercise, adapted and merged groupings described by both the Canadian Wetland Classification System and the BC Wetland Classification system. These groupings are described below.

- Riverine (Fluvial) System
  Sites associated with flowing water and subject to flooding, erosion, and sedimentation. Sites are most closely linked to water quality and quantity in an adjacent stream or river.

- Lacustrine System
  Sites at lakeside (open waterbodies), directly affected by lake hydrological processes (e.g., wave action, flooding, and sedimentation).

- Palustrine Basin (Isolated/Discharge)
  Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface. They receive water from precipitation, groundwater discharge, and surface runoff. There are no surface inlets or outlets. Water loss is primarily by evaporation and, depending on the retention time and permeability of geological substrates, waters may be fresh or more saline.

- Palustrine Basin (Linked)
  Situated in well defined basins (topographic low points) and depressions in inland regions where the watertable is near or at the surface and have channelized inlets and outlets that flow during periods of high precipitation and run-off. They receive water from stream and river inflow, precipitation, groundwater discharge and surface run-off.

- Palustrine Slopes/Spring
  Slope and spring sites that occupy wet seepage areas where groundwater discharges and/or are associated with first order water courses that drain point source discharge springs or upwelling groundwater. These sites develop on lower elevation slopes where water-bearing strata and impermeable layers (e.g., clay or bedrock) contact the ground surface. Drainageway tracks, pools, or small eroded channels are characteristic associated features.

- Other
  Atypical position in the landscape usually associated with anthropogenic disturbance, constructed wetlands, stormwater management, and general hydrologic alteration.

EDATOPIC ELEMENTS

Wetlands are found only on Wet to Very Wet sites. Closely related ecosystem classes are also found on Moist and Very Moist sites, which have sometimes been included in the Kelowna wetland inventory simply due to the fact that these adjacent moist to very moist riparian sites often occur as a gradual transition from wetland to upland communities, often having a poorly defined and dynamic boundary based on an often modified hydrologic condition. For this and in the interest of adequately flagging these sites, low flood and mid flood bench riparian sites were often included on the wetland area boundaries since the ecologic function of the wetland itself are intimately tied to the hydrologic condition and habitat/community function. In the interest of wetland conservation, the wetland edatopic grid is therefore limited to this range. The definitions for soil moisture categories are as follows:

- Moist (M): No water deficit occurs. Current need for water does not exceed supply; temporary groundwater table may be present. Unless otherwise limited, supports forest.

- Very Moist (VM): Rooting-zone groundwater present during the growing sason (water supply exceeds demand). Groundwater table > 30 cm below the surface. Unless otherwise limited, supports forest.

- Wet (W): Rooting –zone groundwater present during the growing season (water supply exceeds demand). Groundwater table between 0 and 30 cm below the surface. Can support tall shrubs and trees.

- Very Wet (VW): Groundwater table at or above the ground surface during the growing season. Will not support tall shrubs or trees but can support low shrubs.

Soil Nutrient Regime (SNR) is the essential soil nutrients available to vascular plants over a period of several years. Six SNR classes are recognized from Very Poor to Alkaline/Saline. Wetland and wetland-related ecosystems can occur throughout the range.

pH (acidity/alkalinity) is a correlate measure of base cation availability. This is primarily of importance for peatlands and less important for hydrologically dynamic systems. Five categories are recognized from Very Acid to Alkaline. Generally, as acidity increases, available base cations decrease, resulting in reduced site productivity.

Very Acid (VA): (<4.5 pH) sites are true bogs with high cover of *Sphagnum* Group I or III mosses and few minerotrophic indicators.

Moderately Acid (MA): (4.5-5.5 pH) sites still have high *Sphagnum* cover but minerotrophic indicators also occur.

Slightly Acid (SA): (5.5-6.5 pH) sites are fens or swamps. Tomenthypnum, Warnstorfii, and Drepanocladus brown mosses are typical for sites with a stagnant or sluggish hydrodynamic indes.

Neutral (N): (6.5-7.4 pH) sites are fens, swamps, or marshes. Species are often a combination of species found on slightly acid and alkali sites.

Alkaline (AK): (>7.4 pH) sites are dominated by minerophilic bryophytes such as *Scorpidium* or *Campylium* mosses on peatland sites. Alkali-tolerant species occur in marshes.

HYDRODYNAMIC INDEX

The Hydrodynamic Index (hi) has five categories that describe the magnitude of vertical and lateral water movements in the soil on Wet and Very Wet sites.

- Stagnant (St): Stagnant to very gradually moving soil water. Vertical fluctuations minimal. Permanent surface saturation but minimal or no surface flooding. Basins or hollows with stable water regimes. Abundant organic matter accumulation and high bryophyte cover.

- Sluggish (Sl): Gradual groundwater movement through peat or fine-textured mineral soils along a hydrological gradient. Minor vertical watertable fluctuations. Semipermanent soil saturation with some elevated microsites or brief periods of surface aeration. Hollows, slopes, and water tracks in basins or lake flats not directly influenced by the waterbody. Abundant peat accumulation and bryophyte cover.

- Mobile (Mo): Distinct flooding and drawdown or pronounced lateral water movements. Peripheral areas of peatland, sites adjacent to open water tracks, small rivulets or ponds, small potholes with relatively stable water regimes, protected lake embayments, or backmarshes in estuaries. Can have deep but well-decomposed accumulations of peat. Patchy bryophyte cover.

- Dynamic (Dy): Significant lateral flow and/or strong vertical watertable fluctuations through mineral soils. Potholes in arid climates that experience significant drawdown, wave-exposed shores, floodplain back channels, and protected estuary sites. Little organic accumulation, few bryophytes.

- Very Dynamic (Vd): Highly dynamic surface water regime. Exposed tidal sites, shallow potholes in arid climates that experience significant drawdown, wave-exposed shores, and sites directly adjacent to and influenced by river flow. No organic accumulation or bryophyes.

Water Clarity and Colour. Characteristics of water with different nutrient status (Ellenberg 1986 in Klinka unpublished).

	Attribute			
Nutrient Status	Water colour	Clarity	pH	N and mineral availability
Dystrophic	Yellowish-deep brown	Very turbid	<4.5	Very low
Oligotrophic Ca-poor	Greenish-brownish	Clear	4.5 -7	Low
Oligotrophic Ca-rich	Blue-greenish	Very clear	>7	Medium
Eutrophic	Greenish-brownish	Turbid	>7	High - Very high

HYDROPHYTES

Obligate Hydrophytes:
Plants occur almost always under natural conditions in wetlands (more than 99% of the time).

Facultative Hydrophytes – Wetland Affiliated:
Plants usually occur primarily in wetlands (67-99 % of the time) but are occasionally found in non-wetlands.

Facultative Hydrophytes – Upland Affiliated:
Plants usually occur in non-wetlands, but are occasionally found in wetlands (1-33 % of the time).

Obligate Upland:
Plants almost always occur (more than 99 percent of the time) in uplands.

SOIL ORDERS

Regosolic: Soils having insufficient A or B horizon development to meet the requirements of other orders, perhaps on young parent materials. The order is divided into the Regosol and the Humic Regosol Great Groups.

Chernozemic: Soils that have developed under xerophytic or mesophytic grasses and forbs, or under grassland-forest transition vegetation, in cool to cold, subarid to subhumid climates. These soils have a dark-colored surface horizon and a B or C horizon or both, of high base saturation. The order consists of the Brown, Dark Brown, Black and Dark Gray Great Groups.

Brunisolic: Soils whose horizons are developed sufficiently to exclude the soils from the Regosolic order, but that lack the degrees or kinds of horizon development specified for soils of other orders. These soils, which occur under a wide variety of climatic and vegetative conditions, all have brownish Bm or Btj horizons. The four Great Groups – Melanic Brunisol, Eutric Brunisol, Sombric Brunisol, and Dystric Brunisol – are separated on basis of thickness of Ah horizons and soil reaction.

Gleysolic: Soils developed under wet conditions and permanent or periodic reduction. These soils have low chromas, or prominent mottling, or both, in some horizons. The Gleysol, Humic Gleysol, and Luvic Gleysol are the three Great Groups.

Luvisolic: Soils that may have eluvial (Ae) horizons, and must have illuvial (Bt) horizons in which silicate clay is the main accumulation product. These soils develop under deciduous or mixed forest or forest-grassland transition in a moderate to cool climate. The order is divided into the Gray Luvisol and the Gray Brown Luvisol Great Groups.

Podzolic: Soils of coniferous forests having podzolic B horizons (Bh, Bhf, or Bf) in which combinations of amorphous Al, Fe, and organic matter have accumulated. The sola are acid and the ion exchange capacity of the B horizons is characterized by pH dependant charge. Three Great Groups are Humic Podzol, Ferro-Humic Podzol, and Humo-Ferric Podzol.

Solonetzic: Soils developed mainly under grass or grass-forest vegetative cover in semiarid to subhumid climates. The soils have a stained brownish solonetzic B (Bn or Bnt) horizon and a saline C horizon. The surface may be an Ap, Ah, Ahe and/or Ae horizon. The order includes the Solonetz, Solodized Solonetz, and Solod Great Groups.

Organic: Soil that have developed in organic deposits. The majority of organic soils are saturated for most of the year. They contain more than 17% organic carbon. The four Great Groups are the Fibrisol, Mesisol, Humisol and Folisol.

Cryosolic: Mineral or organic soils of sub-arctic and arctic regions that have permafrost within 1 m of the surface (2 m of the surface if more than one-third of the pedon has been strongly cryoturbated, as indicated by disrupted, mixed or broken horizons). There are three Great Groups – Turbic Cryosol, Static Cryosol, and Organic Cryosol.

MINERAL HORIZONS AND LAYERS

Mineral horizons contain 17% or less organic C (about 30% organic matter) by weight.

A. This mineral horizon forms at or near the surface in the zone of leaching or eluviation of materials in solution or suspension, or of maximum in situ accumulation of organic matter or both. The accumulated organic matter is usually expressed morphologically by a darkening of the surface soil (Ah). Conversely, the removal of organic mater is usually expressed by a lightening of the soil color usually in the upper part of the solum (Ae). The removal of clay from the upper part of the solum (Ae) is expressed by a courser soil texture relative to the underlying subsoil layers. The removal of iron is indicated usually by a paler or less red soil color in the upper part of the solum (Ae) relative to the lower part of the subsoil.

B. This mineral horizon is characterized by enrichment in organic matter, sesquioxides, or clay; or by the development of soil structure; or by a change of color denoting hydrolysis, reduction, or oxidation. In B horizons, accumulated organic matter (Bh) is evidenced usually by dark colors relative to the C horizon. (Bt). Soil structure developed in B horizons includes prismatic or columnar units with coatings or stainings and significant amounts of exchangeable sodium (Bn) and other changes of structure (Bm) from that of the parent material. Color changes include relatively uniform browning due to oxidation of iron (Bm), and mottling and gleying of structurally altered material associated with periodic reduction (Bg).

C. The mineral horizon is comparatively unaffected by the pedogenic processes operating in A and B horizons, except the process of gleying (Cg), and the accumulation of calcium and magnesium carbonates (Cca) and more soluble salts (Cs, Csa). Marl, diatomaceous earth, and rock with a hardness ≤ 3 on Mohsi scale are considered to be C horizons.

ORGANIC SOILS AND SUBSTRATES

O – This organic horizon is developed mainly from mosses, rushes, and woody materials. It is divided into the following sub-horizons:

Of – This O horizon consists largely of fibric materials that are readily identifiable as to botanical origin. A fibric horizon (Of) has 40% or more of rubbed fiber by volume and a pyrophosphate index of 5 or more. If the rubbed fiber volume is 75% or more, the pyrophosphate criterion does not apply. Fiber is defined as the organic material retained on a 100-mesh sieve (0.15 mm), except for wood fragments that cannot be crushed in the hand and are larger than 2 cm in the smallest dimension. Rubbed fiber is the fiber that remains after rubbing a sample of the layer about 10 times between the thumb and forefinger. Fibric material usually is classified on the von Post scale of decomposition as class 1 to class 4. Three kinds of fibric horizons are named. Fennic horizons are derived from rushes, reeds, and sedges. Silvic horizons are derived from wood, moss with less than 75% of the volume being *Sphagnum* spp., and other herbaceous plants. Sphagnic horizons are derived from sphagnum mosses.

Om – This O horizon consists of mesic material, which is at a stage of decomposition intermediate between fibric and humic materials. The material is partly altered both physically and biochemically. It does not meet the requirements of either a fibric or a humic horizon, has a rubbed fiber content ranging from 10% to less than 40%, and has a pyrophosphate index of >3 and <5. Mesic material usually is classified on the von Post scale of decomposition as class 5 or 6.

Oh – This horizon consists of humic material, which is at an advanced stage of decomposition. The horizon has the lowest amount of fiber, the highest bulk density, and the lowest saturated water-holding capacity of the O horizons. It is very stable and changers little physically or chemically with time unless it is drained. The rubbed fiber content is less than 10% by volume and the pyrophosphate index is 3 or less. Humic material usually is classified on the von Post scale of decomposition as class 7 or higher and rarely as class 6.

Oco – This material is coprogenous earth, which is a limnic material that occurs in some Organic soils. It is deposited in water by aquatic organisms such as algae or derived from underwater and floating aquatic plants subsequently modified by aquatic animals.

Coprogenous earth is composed of aquatic plant debris modified by aquatic animals. It makes slightly viscous water suspensions and is slightly plastic by not sticky. The material shrinks upon drying to form clods that are difficult to rewet and commonly crack along horizontal planes. It has very few or no plant fragments recognizable to the naked eye.

Diatomaceous earth is composed mainly of the siliceous shells of diatoms. It has a matrix color value of 4±1 if not previously dried, that changes on drying to the permanent, light gray or whitish color of diatoms. It is frequently more nearly mineral than organic in composition. It is designated C in horizon descriptions.

Marl is composed of the shells of aquatic animals and $CaCO_3$ precipitated in water. It has a moist color value of 6±1 and effervesces with dilute HCl. The color of the matrix usually does not change on drying. Marl contains too little organic matter to coat the carbonate particles. It is designated Ck in horizon descriptions.