Seabridge Gold Inc.

KSM PROJECT
2009 Wetlands Baseline Report

SEABRIDGE GOLD



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August 2010

KSM PROJECT
2009 WETLANDS BASELINE REPORT

Citation:

Rescan. 2010. *KSM Project: 2009 Wetlands Baseline Report*. Vancouver, BC: Prepared for Seabridge Gold Inc. by Rescan Environmental Services Ltd.

August 2010
Project #0868-006-16

Prepared for:

SEABRIDGE GOLD

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Executive Summary

Seabridge Gold Inc. has proposed the development of the KSM gold-copper mining project approximately 65 km northwest of Stewart, British Columbia. Rescan Environmental Services Ltd. has been contracted to complete environmental and socio-economic baseline studies in support of an Environmental Assessment (EA). This report presents results of wetland baseline studies. Wetlands are a necessary study component because they represent special communities that a number of federal, provincial, and regional organizations have recognized as integral to a properly functioning environment. Wetlands support processes specific only to wetlands and offer a diversity of habitat for a variety of wildlife species. The objectives of this baseline report are to:

1. survey, map, and classify potentially affected wetlands in the study area;
2. describe wetland function;
3. identify potentially rare or unique wetlands; and
4. produce a baseline report describing wetland ecosystems in the study area.

Wetland surveys were carried out in September 2008 and July 2009; 111 wetland surveys were conducted resulting in 94 surveyed wetlands. Wetland mapping indentified 554.3 ha of wetlands within the study area. Four federal wetland classes were observed in the study area with open water wetlands being the most common and swamps covering the largest area. These federal classes were further divided into 21 wetland association types based on floristic characteristics of individual wetlands.

Ecosystem survey data and wetland hydrology data were used to establish wetland function. Wetland functions are a series of process specific to wetlands and are of a hydrological, biochemical, ecological, and habitat nature. These primary functions are valued by society because they ensure:

1. adequate water supply and flood protection (hydrological function);
2. clean surface water resources because water is filtered as it is transferred to groundwater systems (biochemical function);
3. a diversity ecosystems and large wetland complexes (ecological function); and
4. wildlife habitat for a variety of species (habitat function).

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Acronyms and Abbreviations

Acronyms and abbreviations used in this document are defined where they are first used. The following list of abbreviations will assist readers who may choose to review only portions of the document.

BC CDC	British Columbia Conservation Data Centre
BEC	Biogeoclimatic Ecosystem Classification
CWH	Coastal Western Hemlock BEC Zone
Dy	Dynamic Hydrodynamic Index
ESSF	Engelmann Spruce Subalpine Fir BEC Zone
GIF	Ground Inspection Form
GIS	Geographic Information System
ICH	Interior Cedar Hemlock BEC Zone
KSM	Kerr-Sulphurets-Mitchell
MH	Mountain Hemlock BEC Zone
Mo	Mobile Hydrodynamic Index
NAD	North American Datum
PAG	Potentially Acid Generating
Rescan	Rescan Environmental Services Ltd.
Seabridge	Seabridge Gold Inc.
SHIM	Sensitive Habitat Inventory Mapping
Sl	Sluggish Hydrodynamic Index
SMR	Soil Moisture Regime
SNR	Soil Nutrient Regime
St	Stagnant Hydrodynamic Index
TEM	Terrestrial Ecosystem Mapping
TMF	Tailing Management Facility
TRIM	Terrestrial Resource Information Management
UTM	Universal Transverse Mercator
VM	Very Moist SNR
VW	Very Wet SNR
W	Wet SNR

1. Introduction

1.1 PROJECT PROPONENT

The proponent for the KSM (Kerr-Sulphurets-Mitchell) Project is Seabridge Gold Inc. (Seabridge), a publicly traded junior gold company with common shares trading on the Toronto Stock Exchange in Canada and on the American Stock Exchange in the United States.

1.2 KSM PROJECT LOCATION

The KSM Project is a gold/copper project located in the mountainous terrain of northwestern British Columbia, approximately 950 km northwest of Vancouver, British Columbia, and approximately 65 km northwest of Stewart, British Columbia (Figure 1.2-1). The proposed Project lies approximately 20 km southeast of Barrick Gold's recently-closed Eskay Creek Mine and 30 km northeast of the Alaska border. The proposed processing plant and tailing management facility will be located about 15 km southwest of the community of Bell II on Highway 37.

The north and west parts of the Project area drain towards the Unuk River, which crosses into Alaska and enters the Pacific Ocean at Burroughs Bay. The eastern part of the Project area drains towards the Bell-Irving River, which joins the Nass River and empties into the Canadian waters of Portland Inlet. Elevations in the Project area range from under 240 m at the confluence of Sulphurets Creek with the Unuk River, to over 2,300 m at the nearby peak of the Unuk Finger.

1.3 KSM PROJECT DESCRIPTION

The KSM Project is a large proposed gold-copper mining project. Reserve figures released in a preliminary feasibility study announced on March 31, 2010 include 1.6 billion tonnes of ore containing 30.2 million ounces of gold, 7 billion pounds of copper, 133 million ounces of silver and 210 million pounds of molybdenum in the proven and probable categories. This environmental baseline study was designed to address a wide range of alternatives that have been assessed from engineering and cost perspective at various times during the baseline studies. The following project description is the base case for the March 2010 Preliminary Feasibility Study. Maps in subsequent sections of this baseline report may depict slightly different footprint configurations relating to earlier designs that prevailed at the time the fieldwork was completed.

The proposed Project as defined for the purposes of this environmental baseline study will be comprised of two distinct and geographically separate areas (the mining area and processing plant and tailing management area), shown in Figure 1.3-1. The proposed mining area is located in the drainage basin of Sulphurets Creek, a major tributary of the Unuk River. The proposed location of the processing plant and tailing management facility is in the headwaters of tributaries of Teigen and Treaty Creeks, which flow to the Bell-Irving River. The two areas will be connected by a pair of parallel tunnels. An overview of these proposed mine components is provided in the following two Sections.

1.3.1 Mining Area

It is proposed that the mining area will be accessed by a new road to be constructed from the current Eskay Creek mine road. The access road will be used to transport personnel, heavy mining equipment, mining supplies, and explosives. This new road will trend southwestwards to the headwaters of Coulter Creek and then follow the general course of Coulter Creek to the Unuk River. After crossing the Unuk

FIGURE 1.2-1

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KSM Project Location

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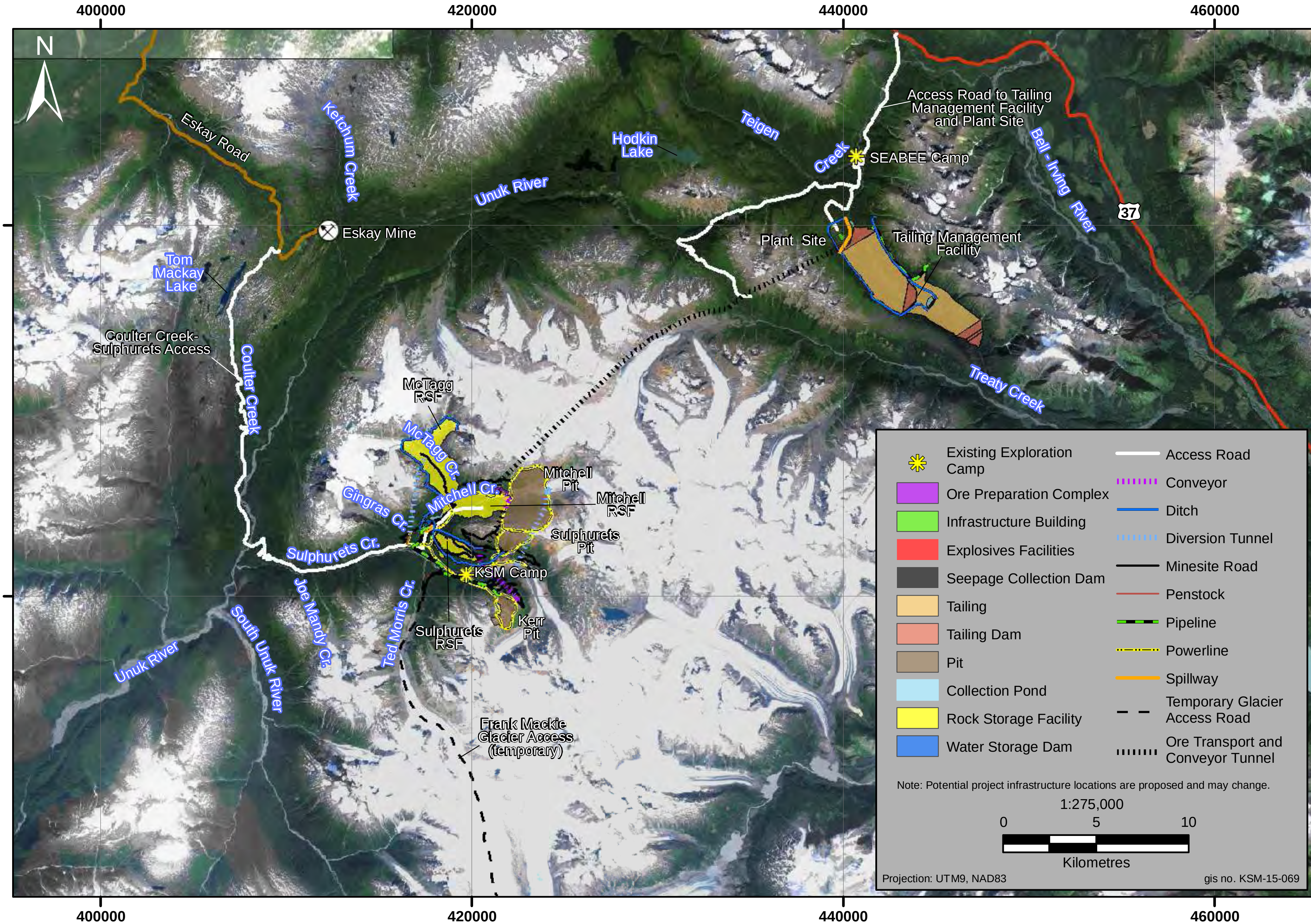

FIGURE 1.3-1

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KSM Project Layout and Road Access

Rescan

River it will follow the north side of the Sulphurets Creek Valley and cross Mitchell Creek. The Unuk River is considered navigable water under the *Navigable Waters Protection Act*. Branch roads will lead to each of the Kerr, Sulphurets and Mitchell deposits. Another branch road will head south parallel to Ted Morris Creek towards the toe of the north flowing tongue of Frank Mackie Glacier to provide access to the explosives manufacturing plant and related explosives magazines.

The support facilities for the mining area are proposed in the vicinity of the confluence of Sulphurets and Mitchell creeks. They will include accommodation for mine employees and administration and maintenance facilities.

The ore deposits will be bulk mined with large shovels and trucks and will use conventional drilling and blasting methods. The Kerr deposit is located on a ridge south of Sulphurets Lake. It is proposed that ore and non-ore mined rock will be transported from the Kerr deposit by conveyor to a tunnel portal (Sulphurets Mitchell tunnel) on the north side of Sulphurets Creek. These materials will be transported through the tunnel by conveyor to the Mitchell Creek Valley where they will be transported to the ore preparation complex or the Mitchell-McTagg rock storage facilities, respectively.

The Sulphurets deposit is located on the south side of the ridge north of Sulphurets Lake. It is proposed that ore will be transported by truck to the Sulphurets Mitchell tunnel and then by conveyor to the ore preparation complex. Non-ore mined rock will be transported to the Sulphurets rock storage facility on the south side of the ridge between the Mitchell Creek and Sulphurets Creek valleys, or to the Mitchell-McTagg rock storage facilities.

The Mitchell deposit straddles the Mitchell Creek Valley in an area recently exposed by the recession of the Mitchell Glacier. Mining of the deposit is proposed on both sides of the valley and to a depth of over 400 m below the current valley bottom. Seabridge proposes to construct a diversion tunnel from near the toe of the Mitchell Glacier, southwards towards the Sulphurets Creek Valley upstream of Sulphurets Lake to divert the flow of Mitchell Creek away from the proposed open pit area. It is proposed that the significant hydraulic head created by this tunnel will be used to drive a hydro-electric plant to generate a small portion of the electricity requirements of the Project.

Large volumes of low grade or barren rock will be removed in order to access the ore in each of the deposits. Non-ore rock removed to access ore will consist of both potentially acid generating (PAG) and not potentially acid generating (not PAG) rock. Rock storage areas have been defined in the Mitchell Creek and McTagg Creek valleys and on the south-facing side of the ridge between Sulphurets Creek and Mitchell Creek valleys. Runoff and seepage from the rock storage areas will be collected in a water storage facility contained behind a dam, to be located in the lower reaches of Mitchell Creek, and treated prior to discharge to the environment. The piped flow from the storage facility to the water treatment plant may be used to drive a hydro-electric plant.

A second diversion tunnel is proposed to direct the flow of McTagg Creek to the Sulphurets Creek Valley, thus avoiding the rock storage areas. The discharge from this tunnel will be available to drive a hydro-electric plant.

A run-of-river hydro-electric plant is proposed to harness the hydraulic head of the cascade in the lower reaches of Sulphurets Creek.

Ore from the deposits will be transported to an ore preparation complex, consisting of crushing and grinding facilities and related ore storage stockpiles, located on the north side of the Mitchell Creek Valley west of the Mitchell pit. Prepared ore will be mixed with water and pumped through one of two parallel 23 km-long tunnels to the process plant, proposed to be located in the drainage of a north-flowing tributary of Teigen Creek. The tunnels will daylight for a short distance near the divide between the Unuk River drainage and Treaty Creek before proceeding to the plant site in the Teigen Creek drainage. They will accommodate two pipelines to transport ore slurry as well as a return water pipeline, a diesel fuel pipeline, and a transmission line. The tunnels will slope towards Mitchell Creek so that all drainage can be controlled at the mine site and treated as necessary prior to release to the environment.

1.3.2 Processing and Tailing Management Area

The tunnel from the Mitchell Creek Valley will terminate on the south side of the valley formed by a north flowing tributary of Teigen Creek (South Teigen Creek) and a south flowing tributary of Treaty Creek (North Treaty Creek Tributary), adjacent to the plant site.

The plant will use a conventional grinding and flotation flowsheet to produce separate copper/gold and molybdenum concentrates, gold doré and tailing. It will process up to 120,000 tonnes per day of ore to produce an average of 1,200 tonnes per day of concentrate. The concentrate will be dried and transported to the port of Stewart by truck. It is anticipated that approximately 20 to 30 round trips per day will be required using 40 tonne payload trucks.

Vehicle access to the plant site will be by a 14 km long road along Teigen Creek from Highway 37. This road will require bridges to cross Teigen creek, which may be considered to be navigable water, and smaller tributaries.

The tailing will be pumped through pipelines to the tailing management facility located in the upper reaches of the Teigen Creek Valley, extending southeast over the divide into a tributary of the Treaty Creek drainage. The facility will be constructed in two phases: the north cell will be developed between a north dam, to be located across the valley of the south tributary of Teigen Creek near the plant site, and a south dam, to be located near the crest of the valley floor; and a south cell that will be retained by a southeast dam, to be located in the headwaters of the north tributary of Treaty Creek. The proposed facility will have storage capacity for the life of the Project within an area about 8 km long and 1.5 km wide. Seepage from the south and southeast dams will be pumped back into the impoundment to reduce any potential impact on the Treaty Creek drainage. Water diversion channels will be constructed on both flanks of the impoundment, where feasible, to divert clean water away from the impoundment. Supernatant water will be recovered from the impoundment using barge mounted pumps and recycled to the plant for process water. In the event that discharge is required, the excess water in the impoundment will be pumped over the northern dam towards the Teigen Creek drainage. Treatment of discharge water may be required to meet permit conditions.

It is assumed that electricity to power the plant and mine site will be obtained from the provincial electricity grid. A secondary transmission line will be constructed from a switching station, to be located near the point where Highway 37 crosses Snowbank Creek. The secondary line will follow the general alignment of the access road, to the plant site, and then pass through the tunnel to the mine site.

2. Objectives

Wetlands are dynamic, depressional or slightly sloping areas on the landscape that are saturated with water for a significant period of time during the growing season. They include both the wet basin and surrounding transitional areas between wetter zones and upland vegetation (Huel 2000). Wetlands can range from bogs and fens, which are sites that contain small, shallow areas of water that are present for only a few weeks after snow melt, to sites that comprise large, permanent open water zones (Stewart and Kantrud 1971). Wetlands are particularly important ecosystems as they fulfil a wide range of ecological, hydrological, biochemical and habitat functions (Environment Canada 2003). They maintain water quality, regulate water flow, and provide erosion control. They also provide habitat for a wide variety of wildlife, including many economically important game species (Natural Resources Canada 2009).

In British Columbia, wetlands comprise about 5.6% of the land base and provide habitat for most wildlife in the province including many red- and blue-listed wetland dependant species.

This report presents results of a baseline wetland study undertaken by Rescan Environmental Services Ltd. (Rescan) in 2008-2009, on behalf of Seabridge for the KSM Project (the Project). The Project has the potential to directly impact some wetland communities. Additionally, changes to the surrounding landscape hydrology may also affect the permanence and floristic composition of wetlands. Thus, studies of the existing wetlands were initiated. Wetlands were surveyed and mapped using Geographic Information System (GIS) within the study area. The physical, chemical, and biological characteristics of a sample of wetlands, as well as wetland quantity, size, and distribution were studied and/or mapped. Wetland ecosystem functions were identified using relevant field data and information from scientific literature in order to identify wetland ecosystem function. The objectives of the 2009 wetlands study were to:

1. survey, map, and classify wetlands in the study area;
2. describe the functions of identified wetlands;
3. identify potentially rare or unique wetlands; and
4. produce a baseline report describing wetland ecosystems in the study area.

3. Methods

3.1 STUDY AREA

The wetland study area (Figure 3.1-1) is composed of two parts (East and West); these areas occupy 17,974 ha and 40,712 ha respectively totalling 58,686 ha.

3.2 WETLAND ECOSYSTEM SURVEY AND MAPPING

For the purposes of the baseline study wetlands were surveyed and mapped such that the extent of wetlands, their type, size, and distribution could be established. Ecosystem components such as vegetation, soil, and hydrologic information were collected and used to establish wetland type and provide supporting information for descriptions of wetland function. The following presents the methodology for the wetland ecosystem survey, wetland classification, wetland mapping, and wetland function studies.

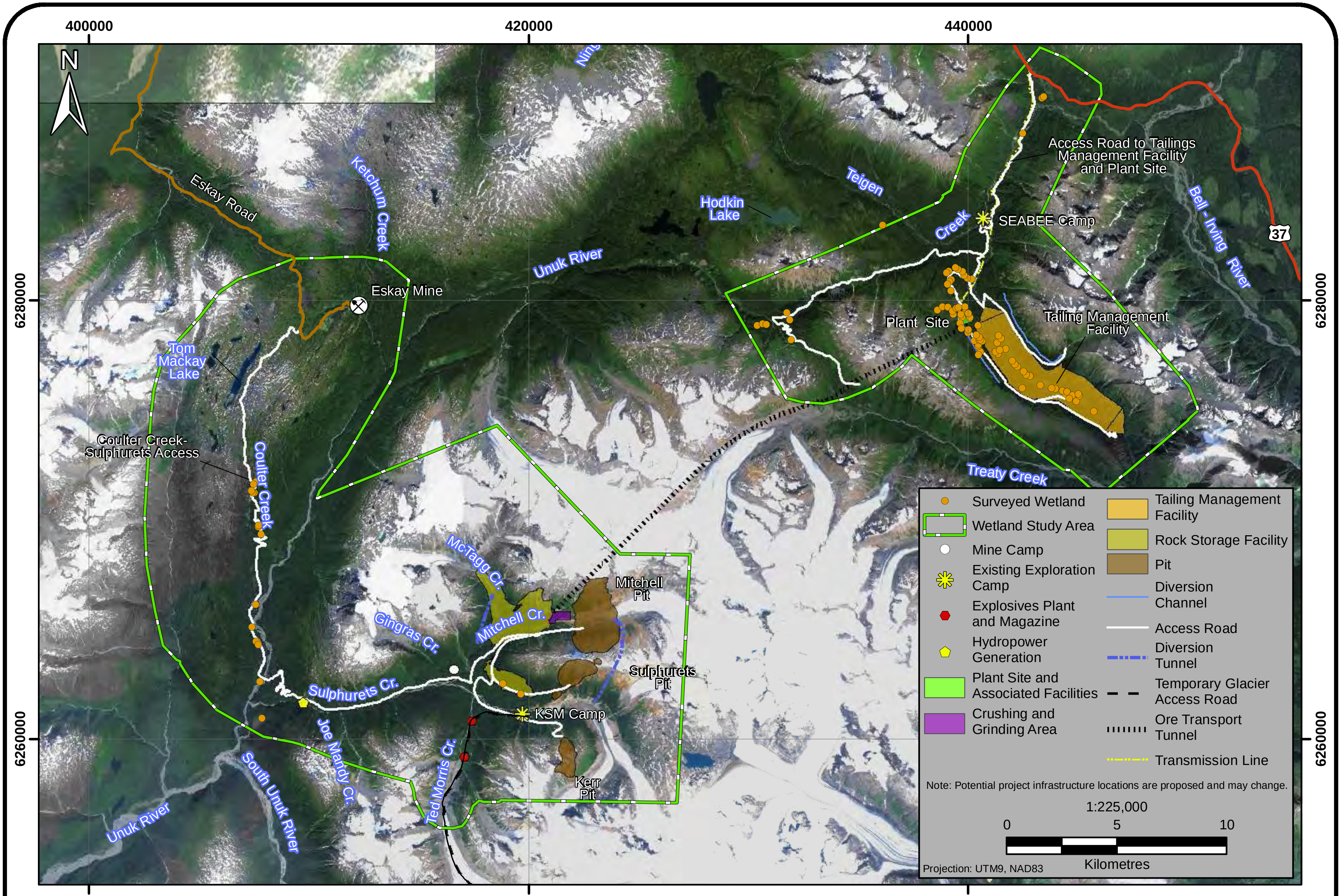
3.2.1 Wetland Ecosystem Survey

Wetlands were surveyed in September 2008 and July 2009; 111 wetland survey plots were established. Survey methods followed *Field Description of Wetland and Related Ecosystems in the Field*, (MacKenzie 1999) and *Wetlands of British Columbia: A Guide to Identification*, (MacKenzie and Moran 2004). Data collected during these field surveys were used to classify wetland ecosystems following the Canadian Wetland Classification System (class level) (Warner and Rubec 1997) and the provincial classification system (association level) (MacKenzie and Moran 2004). Wetland survey locations are displayed in Figure 3.1-1; ecosystem information, including UTM coordinates, is available in Appendix 1.

Prior to field surveys, equipment and field clothing were cleaned using a 1% Virkon solution, to prevent the spread of *Batrachochytrium dendrobatidis* between wetland sites which is a pathogen for amphibians. All wetlands identified in the project footprint were selected for study. Plots were 20 m x 20 m and established in large uniform wetlands or at the centre of wetlands smaller than 400 m^2. The edges of wetlands smaller than 400 m^2 were used as the survey plot boundary. A series of soil cores were established throughout each plot. At the centre of the plot a GPS coordinate was recorded and photographs were taken in each cardinal direction, of the soil surface, and of other significant features such as landforms, unique vegetation and wildlife.

Ground Inspection Forms (GIF) were used to record field notes. These forms are normally used to describe terrestrial ecosystems but were adapted for use in the wetland study. Information recorded on the field forms included:

- Plot Number;
- Project ID;
- Surveyor;
- Date;
- Photograph Numbers;
- GPS coordinates in Universal Transverse Mercator (UTM);
- Aspect (slope direction);



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Wetland Study Area and Mapped Wetland Sites, 2008 to 2009

FIGURE 3.1-1

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- Meso Slope Position (site position in the overall landscape);
- Soil Moisture Regime (SMR);
- Hydrodynamic index;
- Soil Nutrient Regime (SNR) (Table 3.2-1);
- Drainage Mineral Soils (drainage of all soils);
- Moisture Subclasses – Organic Soils (location and types of water features);
- Mineral Soil Texture;
- Organic Soil Texture (notes on decomposition);
- Surface Organic Horizon Thickness;
- Humus Form (decomposition of surface layer);
- Root Restricting Layer;
- Coarse Fragment Content;
- List of Vegetation (dominant/indicator plant species and percent cover); and
- Site Diagram on waterproof paper.

The hydrodynamic index, a measure of vertical and/or lateral water flow through the wetland, was recorded in the GIF form's Soil Moisture Regime field (Table 3.2-1). Moisture Subclasses – Organic Soils was used to comment on water presence above or below the ground and its availability through surface or groundwater pathways. Organic Soil Texture was used to record the texture and decomposition of the organic horizons (humic – very decomposed, mesic – moderate decomposition, fibric – little decomposition). The site diagram space on the GIF was used for a diagram of the soil pit, rooting depth to record measurements of soil water and surface water pH and conductivity. Peat development and the level of decomposition using the von post scale (von post 1-10) of decomposition were also recorded. Raw data are available in Appendix 1.

Table 3.2-1. Wetland Hydrodynamic Index, SMR, and SNR Field Codes

Hydrodynamic Index Code	Soil Moisture Code	Soil Nutrient Code
St - Stagnant	VM - Very Moist	A - Very Poor
Sl - Sluggish	W – Wet	B - Poor
Mo - Mobile	VW - Very Wet	C - Medium
Dy - Dynamic		D - Rich
VD - Very Dynamic		E - Very Rich
		F - Hyper

The soil survey methodologies for wetland ecosystem classification incorporated aspects from *The Canadian System of Soil Classification* (CSSC 1987), *Towards a Taxonomic Classification of Humus Forms* (Green et al. 1993), *Describing Ecosystems in the Field* (Luttmerding, et al. 1990), and *Field Description of Wetland and Related Ecosystems in the Field* (MacKenzie 1999). These methods require soil identification to a depth of 160 cm or lithic contact. Super-saturated soils and shallow alpine soils made deep sampling impossible at numerous sites. Soil pits were dug to a minimum depth of 40 cm, or when significant contact with the water table or lithic/parent material was made. Plate 3.2-1 shows a typical soil core.

A vegetation species list and relative percent vegetation cover were recorded at each plot. Special focus was placed on wetland association indicator species such as *Carex spp.* (sedge) and *Salix spp.* (willow). Vegetation identification references included: *Plants of Coastal British Columbia* (Pojar and MacKinnon 1994), *Plants of Northern British Columbia* (MacKinnion et. al 1999), and *Plants of the Western Boreal Forest and Aspen Parkland* (Johnson et al. 1995). Species not identified in the field were collected and identified using *The Illustrated Flora of British Columbia*: Volumes 1-6 (Douglas et al. 2001). Field data are available in Appendix 2.

Plate 3.2-1. Soil Core from Wetland Site KS20

3.2.2 Wetland Classification

Wetland classification is the process by which ecologically important factors are interpreted so that commonalities among sites are identified. The classification process in BC integrates several classification models into a single hierarchical framework (MacKenzie and Moran 2004). The "Class" concept, as described in the Canadian Wetland Classification System, is used as the broad description of a site. The "Site Association" concept is used as a more precise description of individual sites. Each wetland class (bog, fen, marsh, swamp, shallow open water) is composed of a number of site associations, which are defined as sites capable of supporting a similar community at climax (MacKenzie and Moran 2004).

Currently, limited information is available detailing wetland classification at the site level. The principal data source describing wetlands in BC is the Terrain Resource Information Management (TRIM) database. TRIM data are useful for identifying the locations of wetlands >2 ha in area. However, it does not provide detailed ecosystem information and often wetland areas are inaccurately mapped or classified. Wetlands in TRIM are classified as 1) marsh and 2) swamp. These two wetland classes are recognized as two of the five federal wetland classes (Warner and Rubec 1997). Bogs, fens, and shallow open water wetlands (the remaining three federal wetland classes) are not differentiated by TRIM and are either included in the two TRIM classes or not mapped as wetlands at all. The definitions for marsh and swamp supplied by TRIM (MOELP 1991) are:

1. **Marsh** - A water-saturated, poorly drained, treeless area intermittently or permanently water covered, having cattail, rushes or grass-like vegetation.
2. **Swamp** - A water-saturated area, intermittently or permanently covered with water, having shrubs.

It is likely that some shallow open water, fens and tree-less bogs are included in the TRIM marsh class. The TRIM swamp class does not include treed swamps; treed swamp associations can represent a major percentage of wetlands in northwest British Columbia and high elevation biogeoclimatic zones (MacKenzie and Moran, 2004). Bogs and shallow open water are not included in either TRIM class; however, shallow open water wetlands may appear as small "indefinite" and/or "intermittent" lakes in the TRIM data set. Although there are some problems associated with the classification of TRIM wetlands the data set provides a provincially-consistent form of wetland mapping. For this study TRIM wetlands were incorporated into the wetland Geographic Information System (GIS) and used to generate wetland areas where as field study data were used to classify wetlands.

Wetlands were assigned a given wetland class (bog, fen, marsh, swamp, and shallow open water) (Warner and Rubec 1997) using soil matrix, soil nutrient, and vegetation indicators. Wetland ecosystems were then assigned to a site association following the wetland edatopic grids for wetland class and corroborating dominant vegetation, and landscape position. Wetland classification was typically done in the field at the time of the wetland survey; however, wetland classification was checked for accuracy against standard literature once field studies were complete. Wetland classification data were recorded in the wetland database (Appendix 1).

Wetlands occurring in complexes (a number of wetland classes and/or site associations within a wetland ecosystem) were described in terms of the dominate community with a maximum of two subdominant communities. The percentage of each of the communities observed in the wetland complex was estimated and recorded as a decile. Up to three deciles were recorded and described at each site. Wetland area was calculated for each wetland class and association in each decile. This methodology is consistent with Terrestrial Ecosystem Mapping (TEM) methodologies (RISC 1998) and was used to estimate the area of each community type once mapping was complete.

3.2.2.1 Rare Wetland Ecosystems

The classification information is used to determine rare and sensitive ecosystems. Riparian area wetlands are considered a sensitive habitat as recorded by the Sensitive Habitat Inventory Mapping (SHIM) project (Mason and Knight 2001); there are also a number of wetlands listed provincially by the BC Conservation Data Centre (BC CDC) (MOE 2007) as either:

- **Red-List** - Includes any ecological community that is extirpated, endangered, or threatened in British Columbia.
- **Blue-List** - Includes any ecological community, considered to be of special concern (formerly vulnerable) in British Columbia.

Wetlands in each Biogeoclimatic (BEC) sub-zone were grouped according to wetland association. The wetland associations were compared against a list (BC CDC) of wetland associations in similar BEC sub-zones within the regional forest district. Wetland associations matching those in the BC CDC list would be determined to be listed as red or blue and therefore require special management consideration.

3.2.3 Wetland Mapping

Wetlands were delineated using ArcView GIS 9.3. Field delineations were compared against a 2008 400 mm resolution orthophoto of the study area. Wetlands at each survey location were delineated from the imagery and from available TRIM data. These delineations were recorded in a wetland GIS. Unsurveyed TRIM water features such as TRIM Swamp, TRIM Marsh, TRIM Lake Indefinite, and TRIM Lake Intermittent were added to the GIS, though not all of these features were surveyed. TRIM Lake Definite features were incorporated into the mapping where spatial analysis identified the features as less than 2 ha in area.

Data from Terrestrial Ecosystem Mapping of the study area (Rescan 2010a) data were also incorporated into the wetland GIS. The wettest site series from the Costal Western Hemlock (CWH), Engelmann Spruce Subalpine Fir (ESSF), Interior Cedar Hemlock (ICH), and Mountain Hemlock (MH) BEC zones were analysed (Table 3.2-2). TEM ecosystem polygons were not considered further where wetlands had previously been mapped through the field delineation. The remaining ecosystem polygons were visually checked against the orthophoto.

Table 3.2-2. Criteria for Wetlands from TEM Polygon Data

Zone	Subzone	Variant	BEC_label	Site Series	Description
CWH	wm		CWHwm	08	wet forest
CWH	wm		CWHwm	09	swamp forest
CWH	wm		CWHwm	10	bog woodlands
CWH	wm		CWHwm	31	non-forested wetland
ESSF	wv		ESSFwv	31	non-forested wetland
ESSF	wv		ESSFwv	09	wet forest
ESSF	wv		ESSFwv	08	very moist-wet forest
ICH	vc		ICHvc	31	non-forested fen/marsh
ICH	vc		ICHvc	52	wet-thicket
ICH	vc		ICHvc	06	very moist-wet forest
MH	mm	2	MHmm2	31	non-forested wetland
MH	mm	2	MHmm2	08	bog forest
MH	mm	2	MHmm2	09	swamp forest

Maps, for the baseline report, of wetland features in the study area were made using ArcView 9.3. Wetland maps show both wetland classification and wetland distribution. Data include:

- Delineated Wetlands (2008-2009)
- TRIM Swamp
- TRIM Marsh
- TRIM Lake Intermittent
- TRIM Lake Indefinite
- TRIM Lake Definite (<2 ha)
- TEM Ecosystem Polygons (MHmm2 08)

3.2.4 Wetland Function

Wetland function is defined as a process or series of processes that a given wetland caries out, such as a wetland's ability to store and filter water. There are four primary functions (Environment Canada 2003) that should be included in an environmental assessment (Environment Canada, 2008). The functions are hydrological, biochemical, ecological, and habitat. Wetland functions include a series of complicated interactions between various wetland components such as water, soil, and vegetation. Aspects of wetland function were studied during baseline studies to establish baseline condition so that environmental monitoring during pre-construction, operations, and post-closure will have a point of reference. Table 3.2-3 shows which aspects of wetland functions are described by field data.

Table 3.2-3. Wetland Function and Associated Fieldwork Component

Wetland Function	Fieldwork Component
Hydrological Function	Ecosystem survey (Hydrodynamics) Static and Continuous Hydrology Survey
Biochemical Function	Ecosystem Survey (Soil water pH and conductivity measurements) Wetland Classification (Wetland class)
Ecological Function	Ecosystem Survey (Wetland size and distribution) Wetland Classification (Wetland complexes, rare or unique wetlands)
Habitat Function	Ecosystem Survey (Wildlife observations)

The principle wetland functions for each wetland class were determined through integrating data collected in support of the functional component of the baseline study (Table 3.2-2), individual wetland class and landscape position, and scientific literature, (JWEL 2007; Environment Canada 2008).

3.3 WETLAND HYDROLOGY

Wetland hydrology studies were conducted during the 2008 and 2009 summer field seasons at three representative wetlands within the proposed KSM Project area. One wetland is located near the confluence of the Unuk and Sulphurets Rivers, on the deposit side of the project (Figure 3.3-1). The other two wetlands are located within the proposed TMF (Figure 3.3-2). The wetland hydrology study consisted of: static and continuous water level measurements. The wetland monitoring sites are summarized in Table 3.3-1. The monitoring sites were selected to provide hydrological data characteristics of the area that could be used to infer the hydrology of wetlands throughout the baseline studies area.

Table 3.3-1. Details of Wetland Hydrological Monitoring Sites

Wetland Name /Well	Location (Northing, Easting)	Number of Wells	Wetland Class and Association	Type of Monitoring
UR1	407716, 6260895	6	Marsh (Wm02)	Continuous, static
STE1	442067, 6277301	7	Swamp (Ws06)	Continuous, static
NTR1	445105, 6275593	6	Fen (Wf04)	Static

**All coordinates in UTM9 NAD83*

gis no. KSM-10-041a

Job No. 0868-006-04

March 8 2010

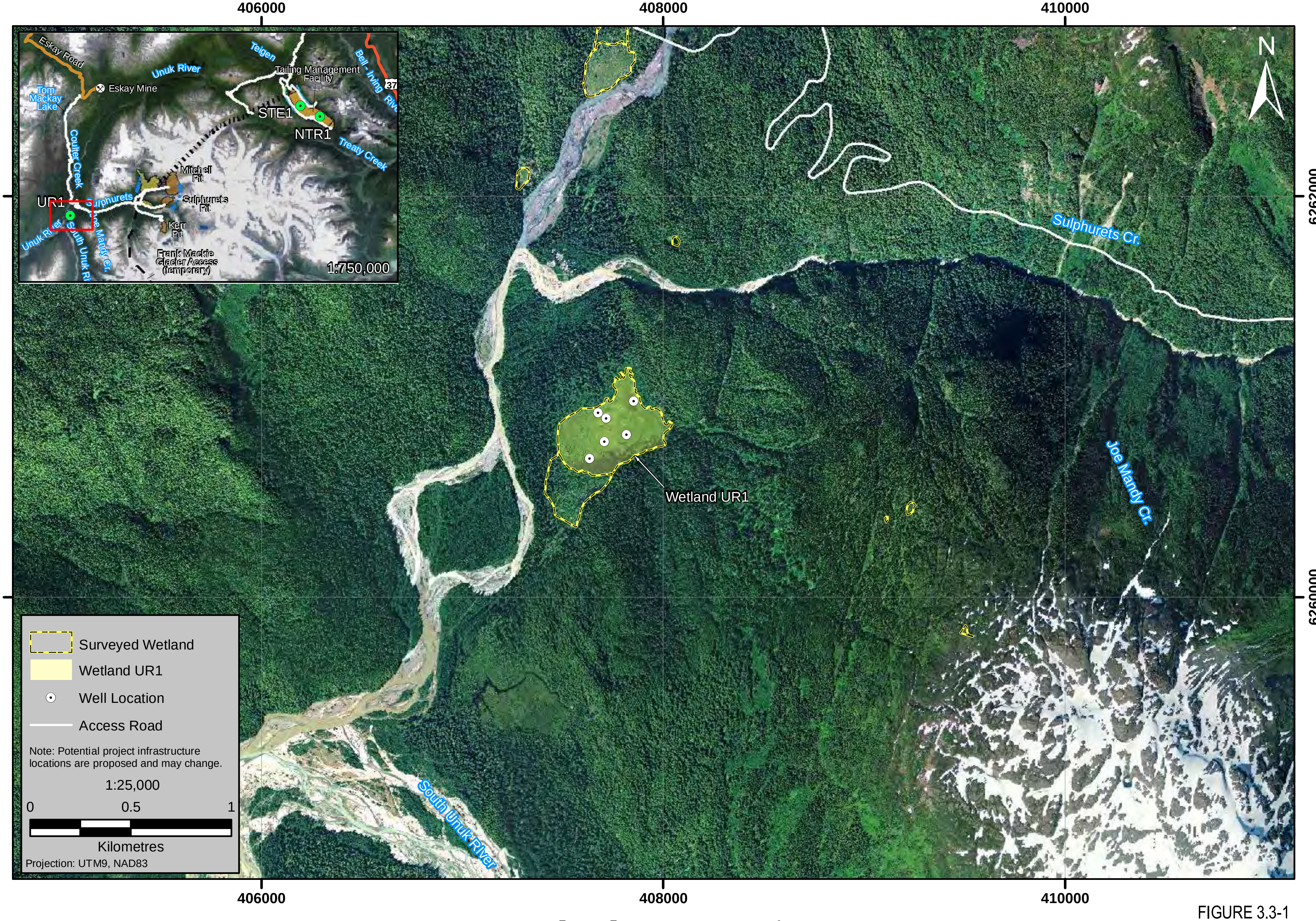


FIGURE 3.3-1

SEABRIDGE GOLD

Wetland UR1 Location

Rescan™

gis no. KSM-10-041b   Job No. 0868-006-04   March 8 2010

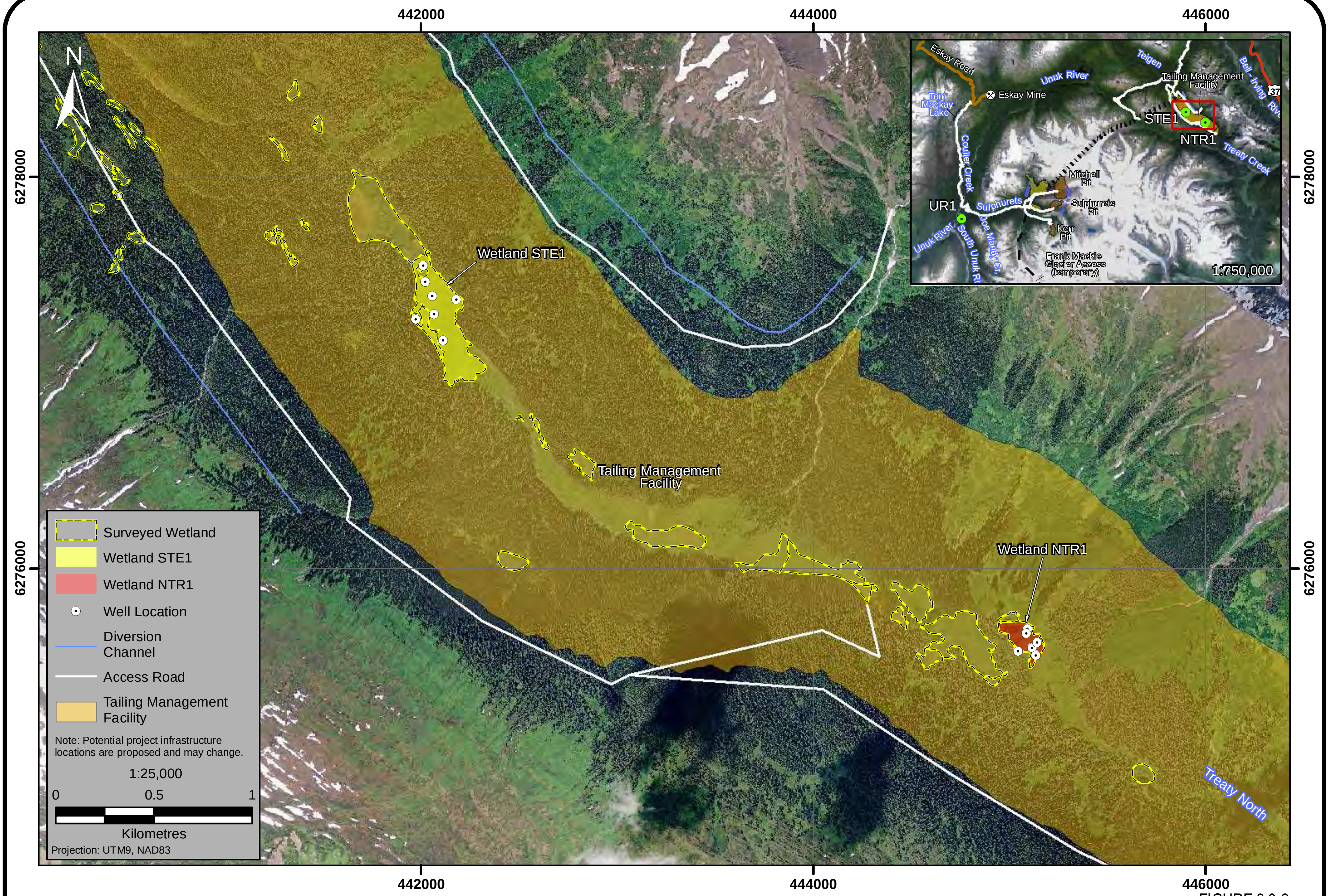


FIGURE 3.3-2

SEABRIDGE GOLD

Wetlands STE1 and NTR1 Locations

Rescan™

3.3.1 Shallow Groundwater Behaviour

By definition, wetlands have shallow water tables. At the wetland scale, water table levels are expected to be highest during the spring snow melt period, which generally occurs during late May or early June for the Project area. Substantial areas of open water can be expected to occur at this time of year. High water levels are also expected in September and October, which are normally the wettest months of the year with the greatest precipitation. Lowest annual water table levels are expected to occur in the late summer, after snowpack from the previous winter has been depleted and prior to the commencement of the wet fall period in this part of the province.

3.3.2 Methodology

The purpose of the wetland hydrology monitoring program was to observe changes in water table levels throughout the year, and within different locations of wetlands. The wetlands selected for monitoring were large; therefore, a specific section of each wetland was selected in which to install monitoring wells. The monitoring site was chosen based on a combination of site factors that would facilitate surveying, while also capturing a representative cross section of the larger wetland.

3.3.2.1 Shallow Groundwater Well Installation

Shallow groundwater wells, consisting of 152 cm long, 2.5 cm diameter, slotted PVC pipe with a drive point, were installed approximately 1 m into the ground using a hand auger and a sledge hammer (see Plate 3.3-1a).

Depending on the study wetland, six or seven groundwater wells were installed (see Plate 3.3-1b). Three wells were installed in a lateral cross-section of the wetland perpendicular to the assumed direction of flow. Four to five wells were installed parallel to the assumed direction of flow to create a longitudinal cross-section. Difficult surveying conditions during well installation resulted in longitudinal cross-sections that may not be the most representative of the direction of flow within the wetland (i.e., NTR1 longitudinal cross-section).

All the wells were installed between June 7 and June 10, 2008. A builder's level was used to determine the relative elevation of the ground surface and standpipes of all of the groundwater wells. Geographic coordinates were taken at each well location; stakes and flagging tape were placed in the vicinity of the wells to help locate the wells during successive site visits. Intense clearing of brush was required to conduct the ground surveys, as portions of the wetlands were heavily vegetated. Due to the relatively unstable conditions of the wetland surfaces, surveyed elevations are assumed to have an error of ± 0.1 m.

3.3.2.2 Static Monitoring

Static monitoring was conducted to obtain instantaneous water levels at different times during the field season. The depth of water below the monitoring well standpipes was recorded for each well during every field trip. Water levels, relative to the ground surface, were determined by measuring the standpipe heights upon well installation.

Saturation of wetland soils can lead to ground surface instability. This likely combined with other factors to cause some of the standpipes to creep and shift angles, by as much as 30 cm, between 2008 and 2009. Snow loading, and subsequent snowmelt, may have also caused some change in standpipe orientation. Disturbance by wildlife was evident at some wells as standpipe ends were chewed on. Where any changes in standpipe orientation were observed (e.g., at STE1 and NTR1), standpipe heights were re-measured in 2009 (Appendix 3).

a) Well materials. These consisted of 152 cm long, 2.5 cm diameter, slotted PVC piping with a drive point end. Photo taken: June 2008.

b) Well installation. A hand auger was used to dig holes, and flagging tape was used to facilitate site identification. Where appropriate, water level instrumentation was installed inside the well. Photo taken: June 2008.

Plate 3.3-1. Shallow Groundwater Well Installation.

Results are presented for each wetland, according to longitudinal and lateral transects. A common reference level was determined for each transect, based on a surveyed control point. Distances between the installed wells at each wetland were determined from the GPS-based geographic coordinates. The static monitoring results are found in Appendix 3.

3.3.2.3 Continuous Monitoring

Two of the study wetlands were selected for continuous monitoring. At these sites water levels were recorded using automated pressure transducers. Solinst® leveloggers were installed in two wells at each UR1 and STE1. Water levels were recorded at 15 minute intervals. A barologger was installed at STE1 to allow for the correction of the levelogger data because of changes in atmospheric pressure. No barologger was installed at UR1. For this station, the data from a barologger installed near Sulphurets Lake, located 12.4 km due east within the same valley, and 386 m higher in elevation, were used. Atmospheric pressure patterns between the two sites were assumed to be similar. The difference in elevation is expected to introduce an error of approximately 6% in the continuous monitoring dataset of UR1. All continuous monitoring data are available in Appendix 4.

Only the data recorded between March 15 and October 15 in 2008 and 2009 were considered to be free from freezing effects, and suitable for data analysis

4. Results

4.1 WETLAND ECOSYSTEM CLASSIFICATION

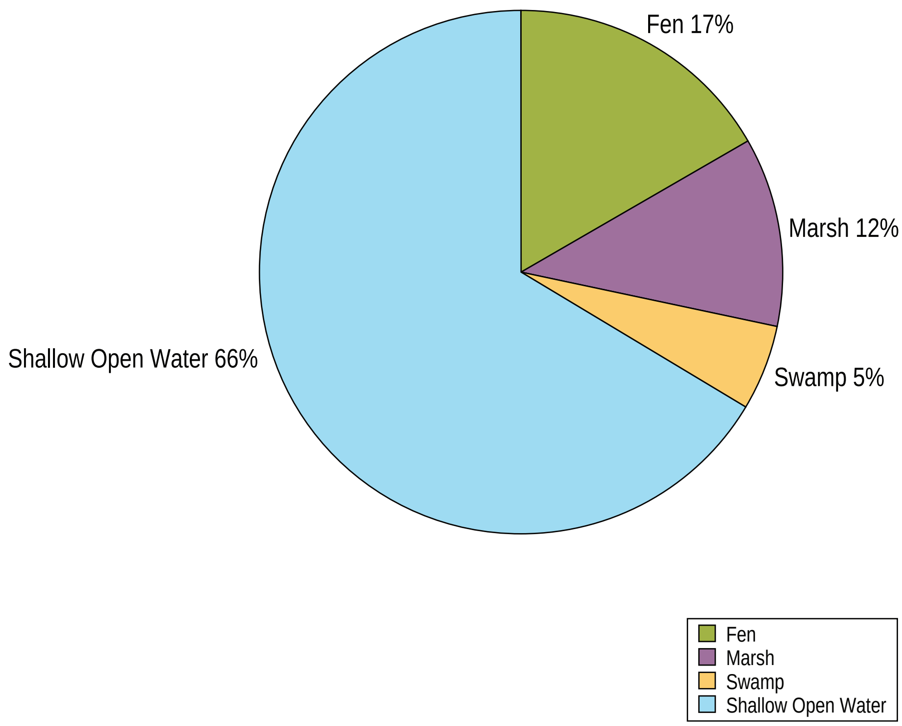
A total of 111 wetland ecosystem surveys were completed in 2008 and 2009 and resulted in the classification and mapping of 94 wetlands. Through GIS analysis a further 442 wetland features were identified. This section summarizes the wetland classes and associations observed in the study area.

Four of the five wetland classes (fen, marsh, swamp and shallow open water) were observed in the study area (Figure 4.1-1) and classified to wetland association. Bog communities were not encountered during wetland field studies, although their identification was a priority identified in 2008 and they were a community of interest for the 2009 field survey (Rescan 2009a).

Bog type communities (bog forest) were identified in the TEM work; however, these bog forests do not meet the specific criteria of a bog as described in Mackenzie and Moran (2004). The bog forests identified in the TEM were in the MHmm2 08 subzone/variant; Mackenzie and Moran (2004) does not identify bogs specifically within the MH BEC zone. However, small isolated bog communities dominated by species consistent with those typical of MHmm2 08 are described as a Wb04 bog. The (MHmm2 08) communities were mapped and described in the *KSM Project 2009 Vegetation and Ecosystem Mapping Baseline Report* (Rescan 2010a), and are not discussed further in this report.

Three hundred sixty seven TRIM open water wetlands less than 2 ha in size were also identified. Vegetation information is not available for all sites and as such are not differentiated based on vegetation composition. These sites are included in the wetland extent calculations and mapping as "TRIM Open water" (Section 4.2). The wetland function(s) of shallow open water wetlands are described in Section 4.4.

A total of 21 wetland associations were identified as a result of the wetland classification. These associations include a number of TRIM wetlands, shallow open water features, and an unclassified fen and a sedge-willow swamp. Results of the wetland classification are presented in Table 4.1-1 and in discussions of individual wetland associations.



Proportion of Wetland Classes Observed in the KSM Wetland Study Area

FIGURE 4.1-1

Table 4.1-1. Wetland Associations Observed in the KSM Wetland Study

Wetland Class and Association	Total Wetland Observations (Decile 1)	Total Wetland Observations (Decile 2)	Total Wetland Observations (Decile 3)
Fen			
Unclassified	1	-	-
Wf01	1	-	-
Wf03	20	4	-
Wf04	9	20	2
Wf08	1	-	-
Wf12	22	1	-
Wf13	5	-	-
Wf50	11	-	-
Marsh			
Wm01	4	-	-
Wm02	2	-	-
TRIM Marsh	62	-	-
Swamp			
Ws02	1	-	-
Ws06	5	2	-
Ws08	1	-	-
Ws09	6	-	-
Ws54	1	-	-
Willow - Sedge	2	-	-
TRIM Swamp	13	-	-
Shallow Open Water			
Open Water	2	13	1
Yellow Pond Lily	0	2	1
TRIM Open Water	367		
Total	**536**	**42**	**4**

4.1.1 Fen Class

A fen is a nutrient-medium peatland ecosystem dominated by sedges and brown mosses, where mineral-bearing groundwater is within the rooting zone and minerotrophic plant species are common (MacKenzie and Moran 2004) (Plates 4.1-1 to 4.1-8). Fens can have fluctuating water tables and are often rich in dissolved minerals. Surface water flow can be direct, through channels, pools, and other open features that can often form characteristic surface patterns. The vegetation in fens is closely related to the depth and chemistry of groundwater. Shrubs occupy drier sites and minerotrophic graminoid vegetation (grass) is typically found in wetter sites (Warne and Rubec 1997). Eight fen associations were observed in the study area.

Site Association Code:	**Site Name:**
Wf01	Water sedge – Beaked sedge
Wetland Class:	**Wetland Area:**
Fen	1.73 ha

Site Description:

The Wf01 fen site association is the most common fen in British Columbia. It can occupy all but the warmest and driest subzones from low to subalpine elevations, and can be found in basins and hollows, seepage slopes, potholes, and fluvial and lacustrine systems (MacKenzie and Moran 2004). This association was observed only once in the study area (site KS94) (Plate 4.1-1). Vegetation species assemblage at this site comprised a variety of moss, forb and shrub species. *Drepanocladus* sp. and *Sphagnum* sp. dominated the substrate, while *Carex* spp. were abundant throughout the understory. *Salix barclayi* and *S. planifolia* shrubs were present along the periphery. The soil was mesic, with an SMR of VW, an SNR of C, and a von Post level of 4. Soil water had a pH and conductivity of 5.5 and 30 μs, respectively.

Plate 4.1-1. Wf01 Fen at Site KS94.

Site Association Code:	**Site Name:**
Wf03	Water sedge – Peat-moss
Wetland Class:	**Wetland Area:**
Fen	23.2 ha

Site Description:

These fens occur mainly above 1100 masl and are similar in structure to the Wf12 fens, but generally have less surface water flow (Mackenzie and Moran 2004). Twenty-four Wf03 fen communities were observed within the study area (Plate 4.1-2). Though often the dominant association at most sites, the Wf03 communities also occasionally occurred in complex with Wf04 or Wf12 associations. The Wf03 Fens were dominated by *Carex aquatilis*, with abundant *Sphagnum* spp., *Eriophorum angustifolium,* and *Aulacomnium palustre*. Some sites also supported a variety of shrubby species, including *Salix barclayi, S. bebbiana*, and *S. barattiana.* Soils varied between sites, and were characterized as fibric, mesic or humic. SMR varied between VM, W and VW, SNRs were classified from A to C, and von Post levels ranged from 2 to 7. In contrast, water chemistry was relatively consistent between sites, with pH and conductivity ranging from 4.6 to 6.1 and 10 to 50 μs, respectively.

Plate 4.1-2. Wf03 Fen at Site KW50.

Site Association Code:

Wf04

Site Name:

Barclay's willow – Water sedge – Glow moss

Wetland Class:

Fen

Wetland Area:

23.68 ha

Site Description:

These fens are common in the subalpine elevations, and often occur on seepage slopes, glacier-fed creeks, and in frost-prone basins (Mackenzie and Moran 2004) (Plate 4.1-3). Thirty-one Wf04 fen associations were observed within the study area. Most of these sites occurred in complex with other fen associations, although several sites also occurred independently. The shrub layer was predominant at these sites, and was generally composed of *Salix barclayi*, *S. sitchensis, S. commutata* and/or *S. arbusculoides*. *Carex aquatilis, Aulacomnium palustre, Eriophrum angustolium* and *Equisetum arvense* were often observed in the understory. Soils varied between sites, and were characterized as fibric, mesic or humic. Recorded SMR levels were between VM, W, and VW; SNR was identified as B-D, and von Post ranged from 1-8. Water chemistry also ranged between sites, with pH and conductivity spanning 5.0 to 6.3 and 30 to 180 μs, respectively.

Plate 4.1-3. Wf04 Fen at Site KW42.

Site Association Code:

Wf08

Site Name:

Shore sedge – Buckbean – Hook-moss

Wetland Class:

Fen

Wetland Area:

0.86 ha

Site Description:

The Wf08 association is an uncommon, rich fen site that occurs mainly at higher elevations throughout BC's Interior. These fens occur on pond-side floating mats or in flarks of patterned fens where there is prolonged shallow flooding to no more than several centimetres (MacKenzie and Moran 2004). This association was observed at one site in the study area (site KS90) (Plate 4.1-4). Vegetation species assemblage at these sites comprised a variety of moss, forb, and shrub species. *Drepanocladus* spp. and *Sphagnum* spp. dominated the substrate, while *Carex limosa,* and *Menyanthes trifoliata* were abundant throughout the understory. *Salix barattiana* and *S. arbusculoides* shrubs were present along the periphery. The soil was a mesic organisol, with an SMR of VW, an SNR of B, and a von Post level of 3. Soil water chemistry measurements resulted in a pH and conductivity of 5.9 and 80 μs, respectively.

Plate 4.1-4. Wf08 Fen at Site KS90.

Site Association Code:

Wf12

Site Name:

Narrow-leaved cotton-grass – Marsh-marigold

Wetland Class:

Fen

Wetland Area:

10.56 ha

Site Description:

These fens are common at subalpine elevations throughout the sub-boreal interior of BC. They occur on gently slopping peatlands where there is continual seepage from snowmelt and groundwater (MacKenzie and Moran 2004). Twenty-three of these communities were observed within the study area. These sites were dominated by *Eriophorum angustifolium* and *Sphagnum* spp., which occurred almost exclusively at some sites. (Plate 4.1-5) At other sites, *Aulacomnium palustre, Carex* spp., *Salix commutata*, *S. barclayi*, were also common. The soils were generally mesic or fibric, or occasionally humic, with a von Post level of 2 to 7. The SMR was classified as VM, W, and VW; the SNR ranged from A to C. Water chemistry measurements recorded pH levels between 4.9 and 6.2 and conductivity between 10 and 140 μs.

Plate 4.1-5. Wf12 Fen at Site KW72

Site Association Code:	**Site Name:**
Wf13	Narrow-leaved cotton-grass – Shore sedge
Wetland Class:	**Wetland Area:**
Fen	10.57 ha

Site Description:

Narrow-leaved cotton-grass – Shore sedge is a relatively common association that occurs in depressions or gradual seepage slopes where standing water persists for most of the growing season (MacKenzie and Moran 2004). Five of these communities were observed within the study area (Plate 4.1-6). Generally lacking any tree or shrub species, these sites were dominated by grasses and forbs. *Eriophorum angustifolia, Carex* spp., and *Caltha leptosepala* occurred frequently. Soils were classified as a mesic peat, with an SNR of B-C, and an SMR of W-VW. PH and conductivity were consistent across sites, and ranged from 5.0 to 5.5 and 20 to 50 µs, respectively.

Plate 4.1-6. Wf13 Fen at Site KS65.

Site Association Code:

Wf50

Wetland Class:

Fen

Site Name:

Narrow-leaved cotton-grass – Peat-moss

Wetland Area:

7.9 ha

Site Description:

The Narrow-leaved cotton-grass – Peat-moss association is found in montane and subalpine areas with surface seepage (MacKenzie and Moran 2004). Eleven Wf50 associations were observed within the study area (Plate 4.1-7). The majority of the observed sites were recorded alone, some were observed in complexes with the Wf04 or Wf03 associations, or shallow open water. The recorded Wf50 associations were dominated by *Eriophorum angustifolium* and *Sphagnun* spp., though a diverse group of forbs also occurred frequently. Other species observed at these sites included *Carex aquatilis, Equisetum arvense, Coeglossum viride, Viola palustris, Aulacomnium palustris* and *Fauria crista-galli.* Organic soil texture at these sites ranged from mesic to fibric. Site SMRs included VM, W, and VW while SNR and von Post classifications encompassed B to C and 2 to 6, respectively. Water chemistry ranged from a pH of 4.9 to 6.4 and conductivity was consistently below 60 μs.

Plate 4.1-7. Wf50 Fen at Site KS78.

Site Association Code:	**Site Name:**
Unclassified	Unclassified
Wetland Class:	**Wetland Area:**
Fen	0.23 ha

Site Description:

One site (KS89AIR) (Plate 4.1-8) remained unclassified. This site was surveyed from the air, and thus, detailed vegetation assemblage and soil information is not available. However, it was evident during the survey that graminoid vegetation dominated the site, with shrubs and conifers growing along the surrounding wetland margins.

Plate 4.1-8. Unclassified fen at Site KS89AIR.

4.1.2 Marsh Class

A marsh is a permanently to seasonally flooded non-tidal mineral wetland dominated by emergent grass-like vegetation (MacKenzie and Moran 2004) (e.g., Plate 4.1-9). Marshes are the most heavily used wetland type for most wetland-using wildlife species. They are typically eutrophic and support large standing crops of palatable vegetation, plankton, and aquatic invertebrates. They are the favoured wetland class for most waterfowl, amphibians, and semi-aquatic mammals because they provide good cover, open water, and food. Soils are typically mineral but can also have a well-decomposed organic surface tier (Warner and Rube 1997; MacKenzie and Moran 2004). Three marsh associations were observed in the study area, including TRIM Marsh which encompasses a number of non-identified wetland associations.

Site Association Code:

Wm01

Site Name:

Beaked sedge – Water sedge

Wetland Class:

Marsh

Wetland Area:

4.05 ha

Site Description:

This association is the most widespread marsh association in the province. These marshes are found on sites that are inundated by shallow low energy flood waters, on the margins of beaver ponds, lakes, and palustrine basins (MacKenzie and Moran 2004). This community was observed at sites KS10B, KS19, and KS29 (Plate 4.1-9). The Wm01 association at Site KS10B occurred in a complex with shallow open water. Species diversity at these sites was low; vegetation was dominated by *Carex sitchensis* and/or *C. aquatilis*. *Salix* spp. shrubs and wetland adapted forbs, such as *Equisetum arvense* and *Scirpus microcarpus*, also occurred occasionally. Soil types comprised fibric or mesic peat, with SMRs of W to VW, SNRs of C to D and von Post levels ranging from 1 to 9. Soil water pH was 5.5 to 7.1, and conductivity (where measured) was 120 μs.

Plate 4.1-9. Wm01 Marsh at Site KS29.

Site Association Code:	**Site Name:**
Wm02	Swamp horsetail – Beaked sedge
Wetland Class:	**Wetland Area:**
Marsh	20.87 ha

Site Description:

The Wm02 association is generally found on back-levee depressions along low-gradient streams, bays of large lakes and flooded fens (Mackenzie and Moran, 2004). This community was observed at two sites (KS34 and KS35) (Plate 4.1-10) in the study area. KS35 was characterized by a dense herbaceous layer of *Carex aquatilis* and *Comarum palustre*, with occasional *Salix* spp. and *Alnus crispa* shrubs along the margins of the wetland. The soil type was a fibric peat, with an SMR of VM, an SNR of C and a von Post of 3. Soil water pH was 6.1 and conductivity was 120 µs.

Plate 4.1-10. Wm02 Marsh at Site KS35.

4.1.3 Swamp Class

A swamp is a nutrient-rich wetland ecosystem with significant groundwater inflow, periodic surface aeration, and elevated microsites supporting the growth of trees and tall shrubs (MacKenzie and Moran 2004) (Plates 4.1-12 to and 4.1-17). Swamps generally have more than 30% tree or tall shrub cover. Soils are often gleyed mineral soils with a surface layer of anaerobically decomposed woody peat. In general, there are three physically different swamp communities (1) shrub-thicket, (2) coniferous forest, and (3) hardwood (deciduous) swamps (Warner and Rubec 1997). Swamps have a more vertical structure than other wetland classes and support more diverse avifaunal assemblages (MacKenzie and Moran 2004). Further, forested swamps typically have an open canopy that appears to be favoured by many bird and bat species (MacKenzie and Moran 2004; Lausen 2006). Eight swamp associations were observed in the study area including an unclassified association and TRIM swamps.

Site Association Code:	**Site Name:**
Ws02	Mountain alder – Pink spirea – Sitka sedge
Wetland Class:	**Wetland Area:**
Swamp	16.15 ha

Site Description:

This association occurs on beaver-flooded flats of small creeks, peripheral zones of wetlands and lakeshores where there is early season flooding, continuous seepage near the surface, and poor drainage (MacKenzie and Moran, 2004). This association was observed at site KW93 (Plate 4.1-12). *Alnus tenufolia* dominated the shrub layer, while *Carex sitchensis* dominated the herb layer. Other species, including, *Equisetum arvense, Salix lucidia* and *Sambucus racemosa*, also occurred occasionally. Soil moisture level was classified as VW.

Plate 4.1-12. Ws02 Swamp ay Site KS93.

Site Association Code:

Ws06

Site Name:

Sitka willow – Sitka sedge

Wetland Class:

Swamp

Wetland Area:

15.72 ha

Site Description:

Sitka willow – Sitka sedge swamps are relatively uncommon at low elevations, and are usually associated with fluvial systems or linked basins (Mackenzie and Moran 2004). This association was observed at five sites within the study area (KS3, KS5, KS9, KS35B, KS92) (Plate 4.1-13). The herb layer was primarily composed of *Carex sitchensis* and *Equisetum arvense*. A variety of shrubs, including *Salix barclayi* and *S. sitchensis*, also occurred frequently. Overall, the *Sphagnum* spp. moss layer at these sites was poorly developed. Soils were classified with a von Post of 1-3, an SMR of W to VW, and an SNR of A-D. Water chemistry measurements, where evaluated, recorded a pH of 5.5 to 6.5 and conductivity between 120 and 160 µs.

Plate 4.1-13. Ws06 Swamp at Site KS93.

Site Association Code:	Site Name:
Ws08	Subalpine fir – Sitka valerian – Common horsetail
Wetland Class:	**Wetland Area:**
Swamp	0.58 ha

Site Description:

The Ws08 association occurs on lower and toe slopes and margins of wetlands, where there is significant flow of mineral-rich groundwater (Mackenzie and Moran 2004). Within the study area, two Ws08 associations were observed (KS80 and KS80B) (Plate 4.1-14). These sites were characterized by a diverse layer of shrubby vegetation, including *Abies lasiocarpa, Salix barattiana*, and *Alnus crispa*. The substrate was characterized by an SMR of W, an SNR of D, and von Post of 10. Conductivity and pH were 30 μs and 5.7, respectively.

Plate 4.1-14. Ws08 Swamp ay Site KS80.

Site Association Code:	Site Name:
Ws09	Black spruce – Skunk cabbage – Peat-moss
Wetland Class:	**Wetland Area:**
Swamp	1.69 ha

Site Description:

The Ws09 association is found in palustrine basins and back-levee depressions with high water tables. These sites are strongly mounded, with conifers on elevated microsites and standing water in between mounds (Mackenzie and Moran, 2004). Six sites within the study area, two of which were part of shallow open water complexes, were classified as Ws09 associations (Plate 4.1-15). Shrubby vegetation at these sites was dominated by *Cornus stolonifera* and *Ribes hudsonianum*, while *Picea* spp. and *Tsuga heterophylla* dominated the tree layer. The understory vegetation was dominated by *Lysichiton americanus* and *Dryopteris expansa*. However, the strong mounding that characterizes these sites also enabled growth of a diversity of other, herbaceous and moss species. Soils were predominantly mesic, or occasionally fibric, with peat depths ranging from 40 to 110 cm. Soil SMR was classified as W to VW, SNR as C to D and von Post as 3 to 5. Water chemistry pH and conductivity were 5.8 to 6.5 and 40 to 110 μs, respectively.

Plate 4.1-15. Ws09 Swamp ay Site KS30.

Site Association Code:

Ws54

Wetland Class:

Swamp

Site Name:

Western redcedar – Western hemlock – Skunk cabbage

Wetland Area:

0.2 ha

Site Description:

This association is generally found in low-lying areas on floodplains and receiving sites along toe slops and wetland margins (Mackenzie and Moran 2004). One site, which formed a complex with a shallow open water wetland, was classified as a Western red cedar – Western hemlock – Skunk cabbage association (Plate 4.1-16). The site lacked well-developed shrub and tree layers; however, the dense herbaceous layer was dominated by *Carex aquatilis*, *Lysichiton americanus* and *Dryopteris expansa*. Soils were mesic, and had an SMR of W, an SNR C and von Post of 4. Water chemistry pH and conductivity were 6.0 and 50 μs, respectively.

Plate 4.1-16. Ws54 Swamp ay Site KS26.

Site Association Code:	**Site Name:**
Willow-sedge	Willow sp. – Sedge sp.
Wetland Class:	**Wetland Area:**
Swamp	1.9 ha

Site Description:

Differences in climatic regimes, site conditions, and hydrological changes, as well as the stochastic establishment capacity of *Salix* spp., allow for a wide range of willow-sedge associations (Mackenzie and Moran 2004). The general Willow –Sedge association was created as a classification for sites that do not fit in the more specific willow/sedge associations listed above and in Mackenzie and Moran (2004). Within the study area, two sites (KS4 and KS8) were classified as Willow-Sedge associations. KS4 (Plate 4.1-17) supported a diversity of willow species, including *Salix barattiana, S. commutata, S. stolonifera, and S. sitchensis*, although *S. barclayi* was most prevalent. *Carex aquatilis* and *Equisetum arvense* were the dominant forbs/graminoids at this site. In contrast, the only *Salix* species recorded at KS8, was *S. sitchensis*. Forbs and graminoids, particularly *Equisetum arvense*, were more abundant at KS8 than at KS4. However, both sites were characterized by poorly drained mineral soils with little organic material, SMRs of W to VW, and soil water pH of 5.5 to 5.9.

Plate 4.1-17. Willow-sedge association at KS4

4.1.4 Shallow Open Water Class

Shallow open water wetlands are ecosystems permanently flooded by still or slow-moving water and dominated by rooted and floating, leaved aquatic plants. Shallow open water wetlands are often the transition from bogs, fens, marshes and swamps to permanent deep water bodies (i.e., sluggish streams and lakes) (Warner and Rubec 1997; MacKenzie and Moran 2004). They are among the most important habitat for wildlife and fish because of cover and high prey densities (MacKenzie and Moran 2004). Sedimentation and nutrient loading are the biggest concern for these wetlands because changes in turbidity block light penetration which alters where submerged rooted aquatic vegetation can grow (MacKenzie and Moran 2004). A variety of shallow open water features were observed throughout the study area, including a Yellow Pond Lily dominated site and number of non-vegetated open water features. GIS analysis identified approximately 102 ha of open water, although the majority was TRIM open water features less than 2 ha in area. Plate 4.1-18 presents a Yellow Pond Lily wetland observed at Site KS14, while Plate 4.1-19 presents a large open water feature at KS76.

Plate 4.1-18. Yellow Pond Lily Open Water Wetland in Complex with a Wf12 Fen at Site KS14.

Plate 4.1-19. Open Water Feature at Site KS76.

4.2 WETLAND EXTENT

Wetlands accounted for an area of 554.3 ha repressing 1% of the study area. On a proportional basis, this is less than the total area of wetlands estimated to cover British Columbia. The average size of a wetland within the study area is 1.03 ha (Table 4.2-1); the largest wetland area was approximately 75 ha and was identified at 444903 6288695 UTM 9N NAD83 near the Teigen and Snowbank Creek confluence. The five largest wetlands observed were TRIM swamp wetlands. The area of each wetland class is presented in Table 4.2-2.

TRIM wetlands accounted for the majority of the area of wetlands. However, of the wetland classes surveyed, fens covered largest area at 78.8 ha (Table 4.2-2). Wetland classes were further classified to association. The surveyed associations with the largest area were the Wf03 and Wf04 fen wetlands (Table 4.2-3); this table shows the area of each wetland association within each decile. The distribution of each wetland association is presented in Figures 4.2-1 to 4.2-18.

Table 4.2-1. Summary Statistics of Wetland Area

	Total Wetland	Primary Ecosystem (Decile 1)	Secondary Ecosystem (Decile 2)	Tertiary Ecosystem (Decile 3)
Total Area (ha)	554.33	538.28	15.25	0.79
Average Size (ha)	1.03	1.0	0.36	0.20
Minimum Size (ha)	0.0002	0.0002	0.0104	0.0759
Maximum Size (ha)	75.29	75.29	3.37	0.35
Total	**536**	**536**	**42**	**4**

Table 4.2-2. Area of Wetland Classes in the KSM Wetland Study Area

Wetland Class	Area (ha)
Fen	78.75
Marsh	24.91
Swamp	36.25
Shallow Open Water	5.97
TRIM Marsh	86.94
TRIM Open Water	95.85
TRIM Swamp	225.66
Total	**554.33**

Table 4.2-3. Area of Wetland Associations in the KSM Wetland Study Area

Wetland Class and Association	Wetland Area (ha) (Decile 1)	Wetland Area (ha) (Decile 2)	Wetland Area (ha) (Decile 3)
Fen			
Unclassified	0.23	-	-
Wf01	1.73	-	-
Wf03	21.87	1.35	-
Wf04	13.60	9.66	0.43
Wf08	0.86	-	-
Wf12	10.31	0.26	-
Wf13	10.57	-	-
Wf50	7.90	-	-
Marsh			
Wm01	4.05	-	-
Wm02	20.87	-	-
TRIM Marsh	86.94	-	-
Swamp			
Ws02	16.15	-	-
Ws06	14.95	0.77	-
Ws08	0.58	-	-
Ws09	1.69	-	-
Ws54	0.20	-	-
Willow - Sedge	1.90	-	-
TRIM Swamp	225.66	-	-
Shallow Open Water			
Open Water	2.38	3.11	0.29
Yellow Pond Lily	-	0.11	0.08
TRIM Open Water	95.85	-	-
Total	**538.28**	**15.25**	**0.79**

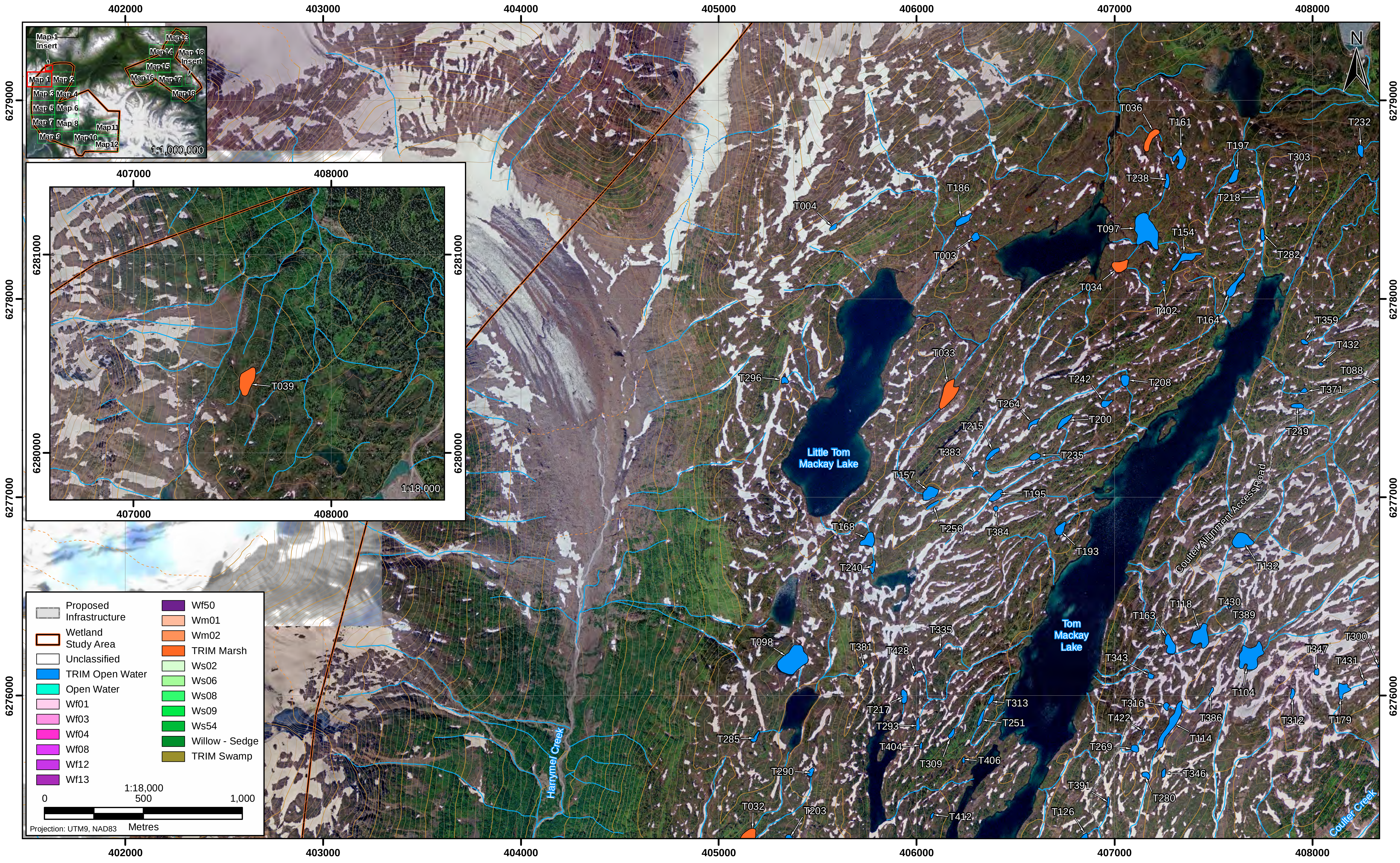


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FIGURE 4.2-1

Wetland Distribution in the KSM Wetland Study Area Map 1

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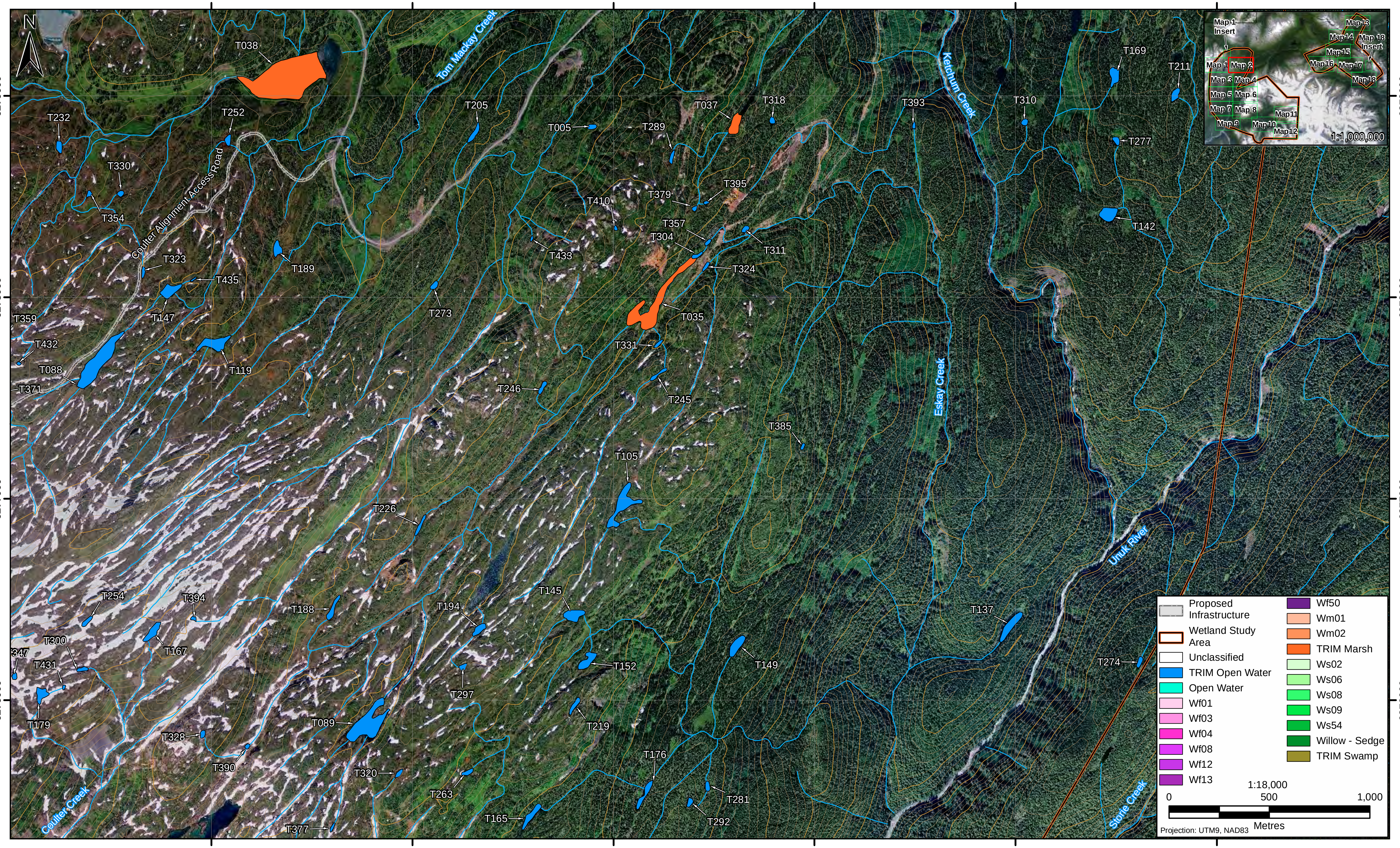

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Wetland Distribution in the KSM Wetland Study Area Map 2

FIGURE 4.2-2

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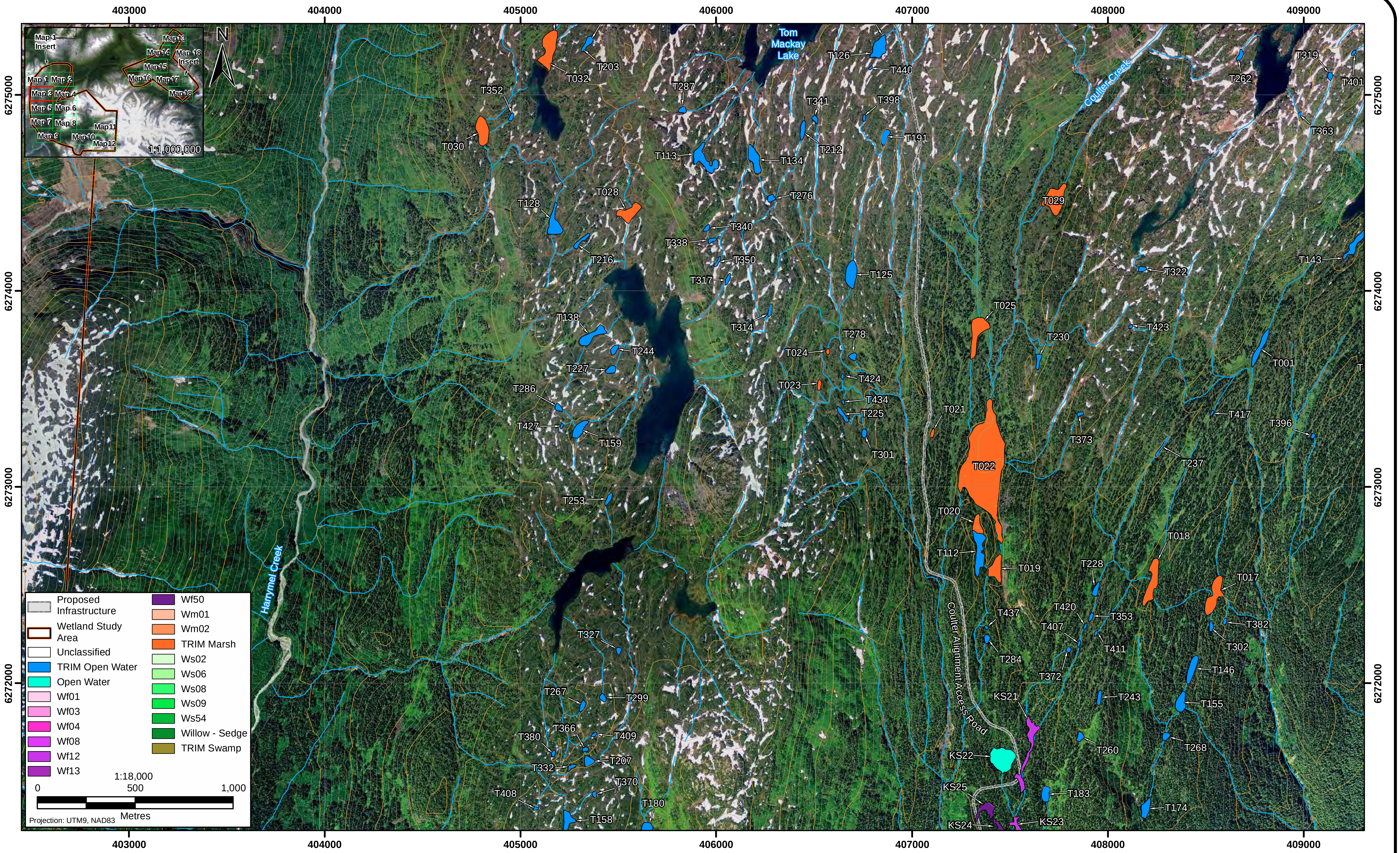

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Wetland Distribution in the KSM Wetland Study Area Map 3

FIGURE 4.2-3

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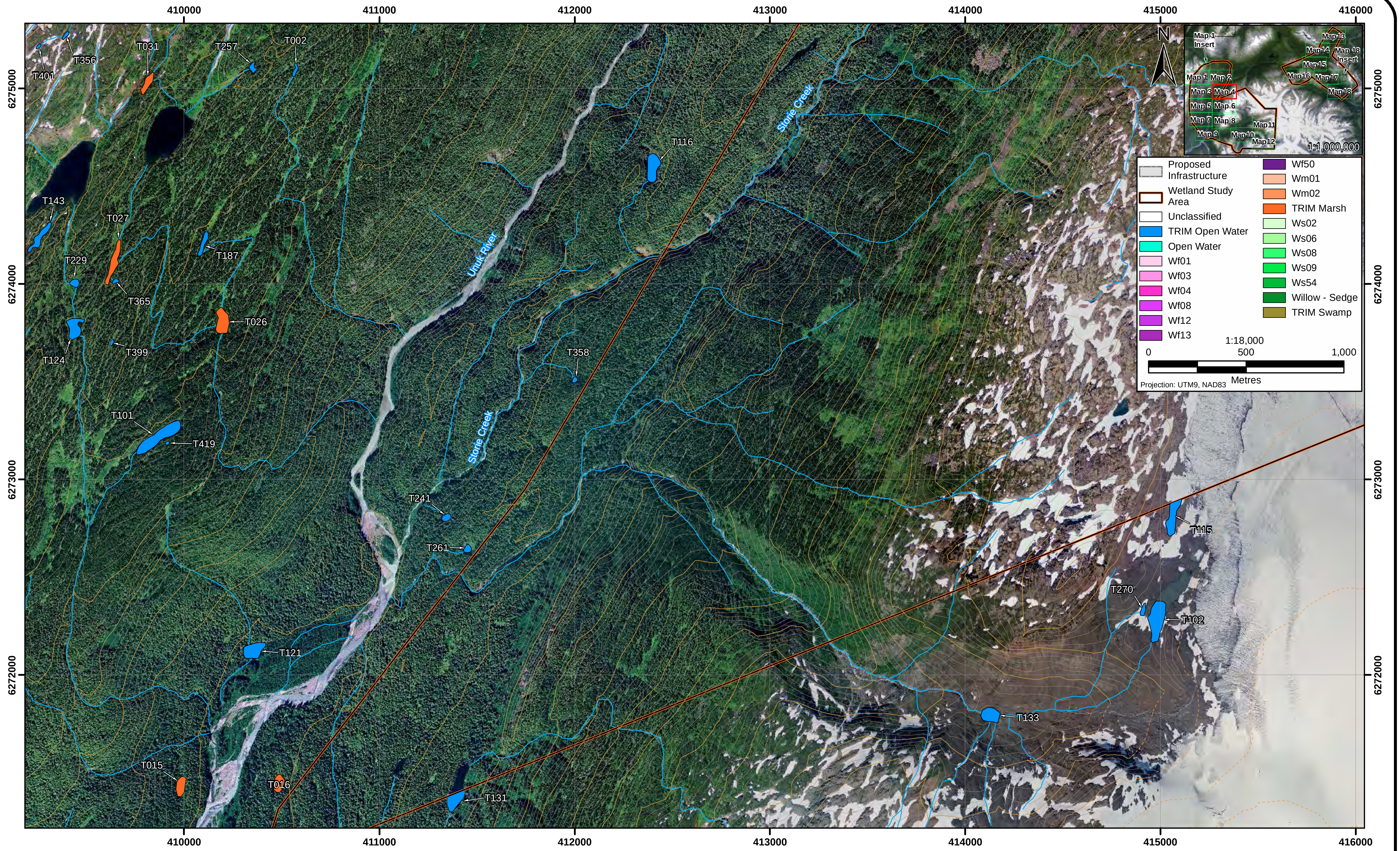

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FIGURE 4.2-4

Wetland Distribution in the KSM Wetland Study Area Map 4

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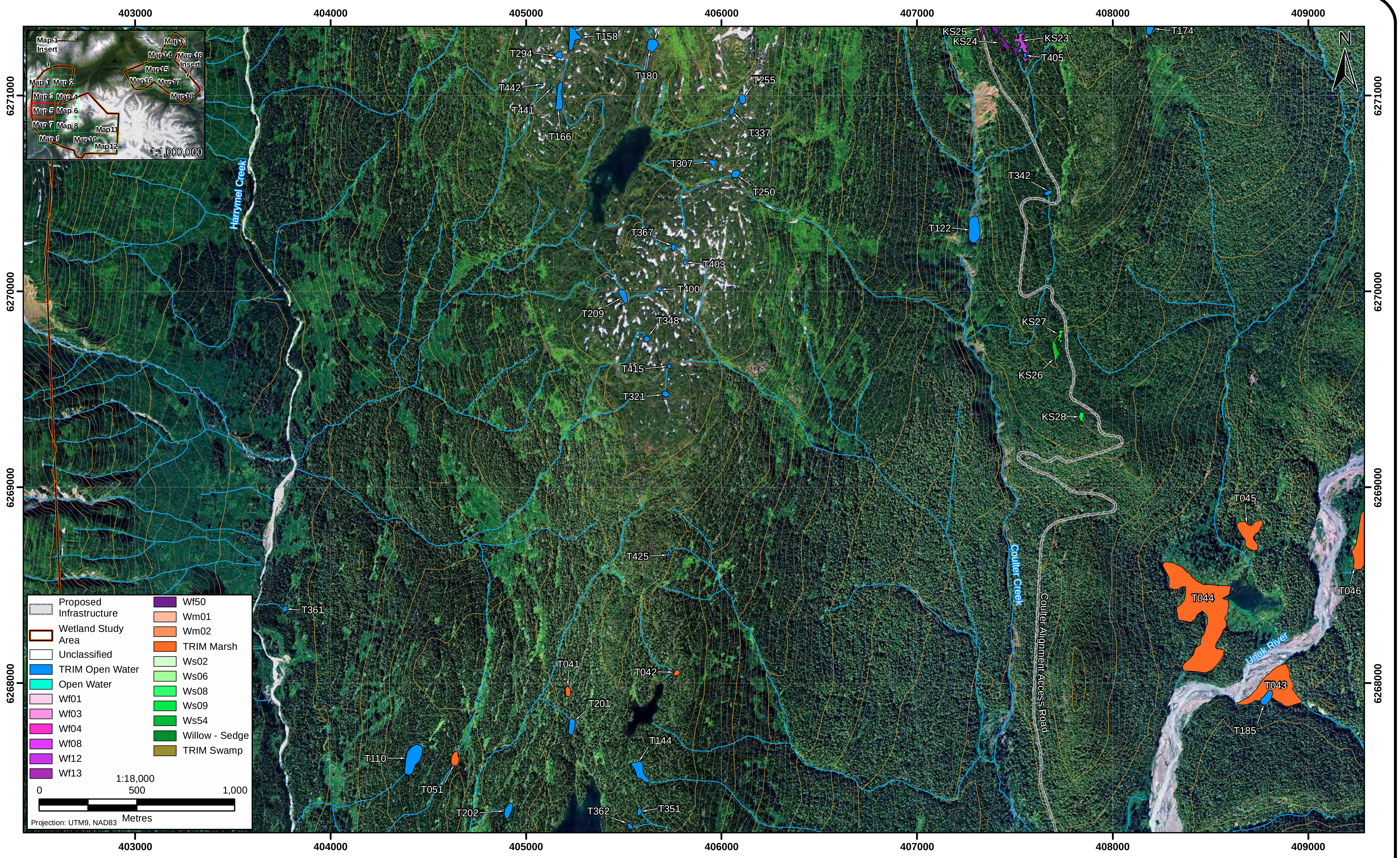
gis no. KSM-22-011e Job No. 868-006-16 March 3, 2010



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Wetland Distribution in the KSM Wetland Study Area Map 5

FIGURE 4.2-5

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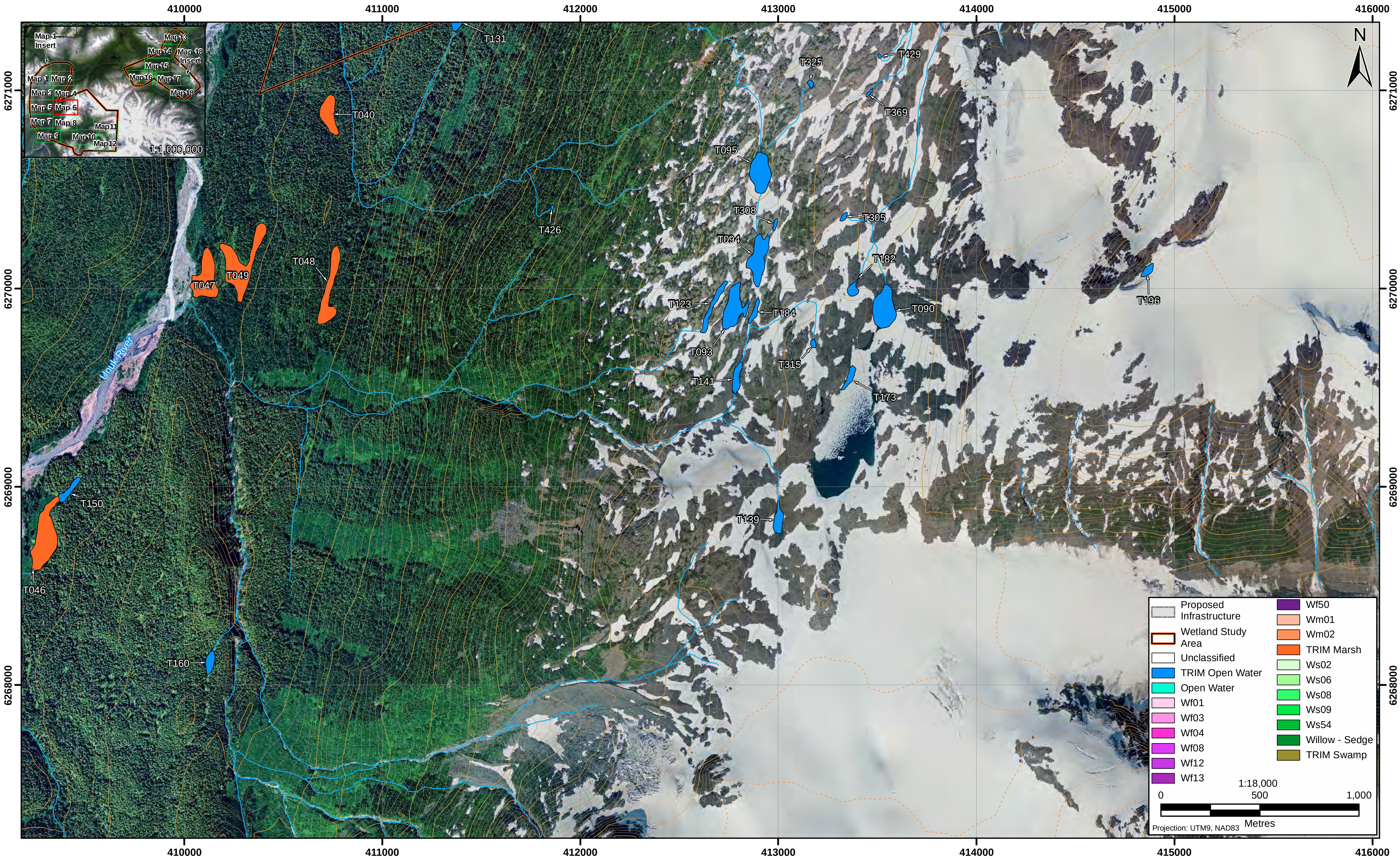

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FIGURE 4.2-6

Wetland Distribution in the KSM Wetland Study Area Map 6

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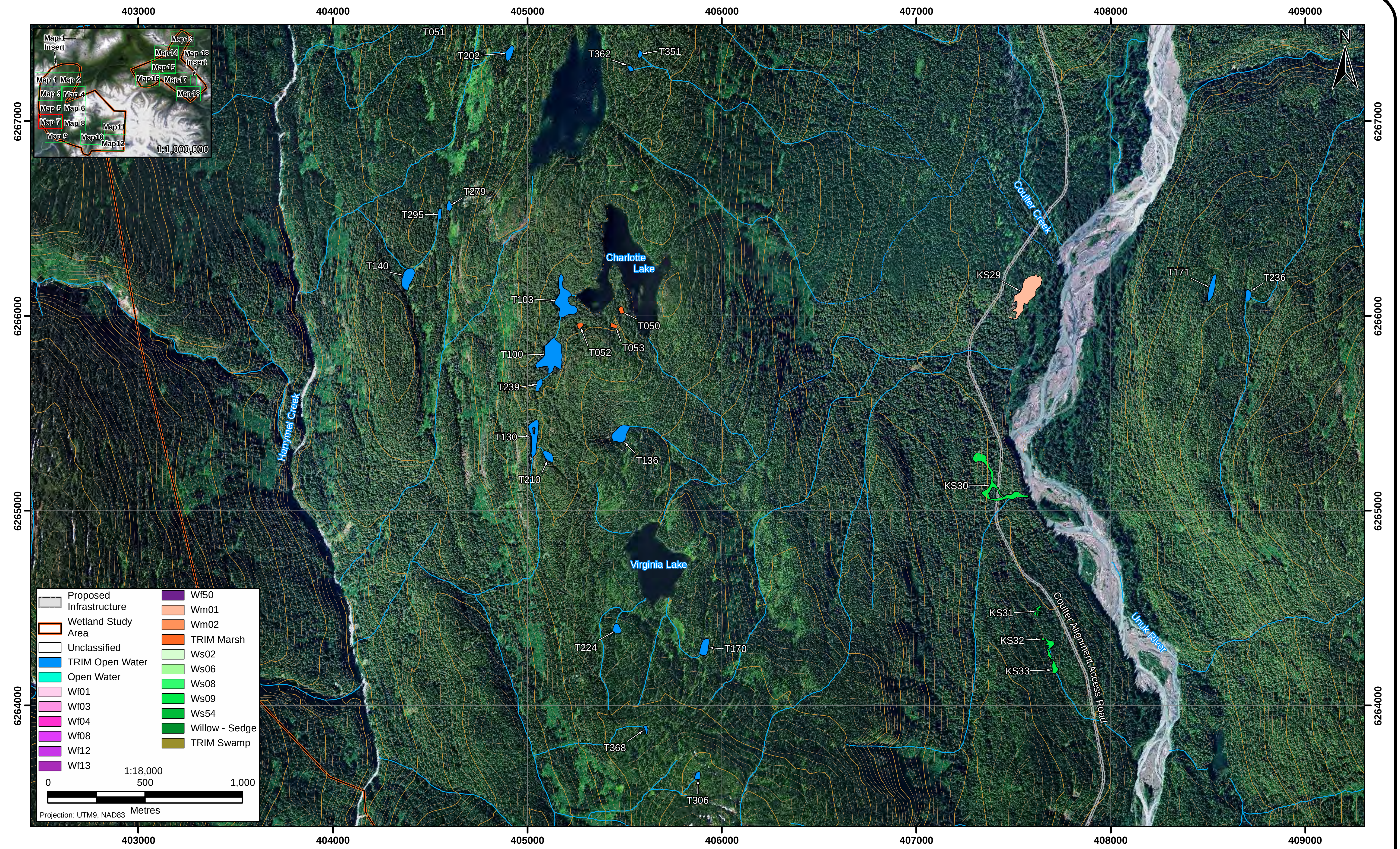

SEABRIDGE GOLD

Wetland Distribution in the KSM Wetland Study Area Map 7

FIGURE 4.2-7

Rescan
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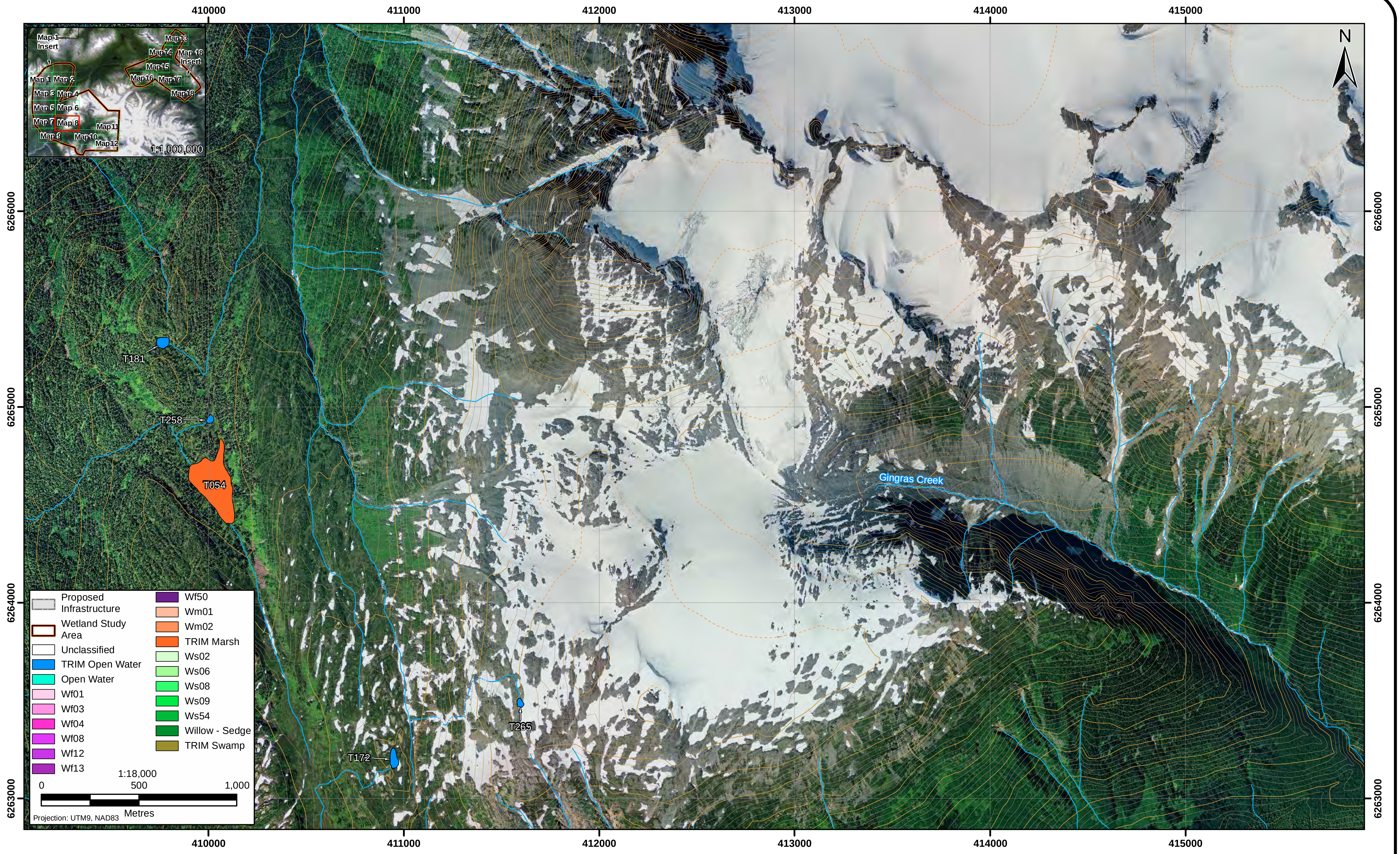

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Wetland Distribution in the KSM Wetland Study Area Map 8

FIGURE 4.2-8

Rescan Engineers & Scientists

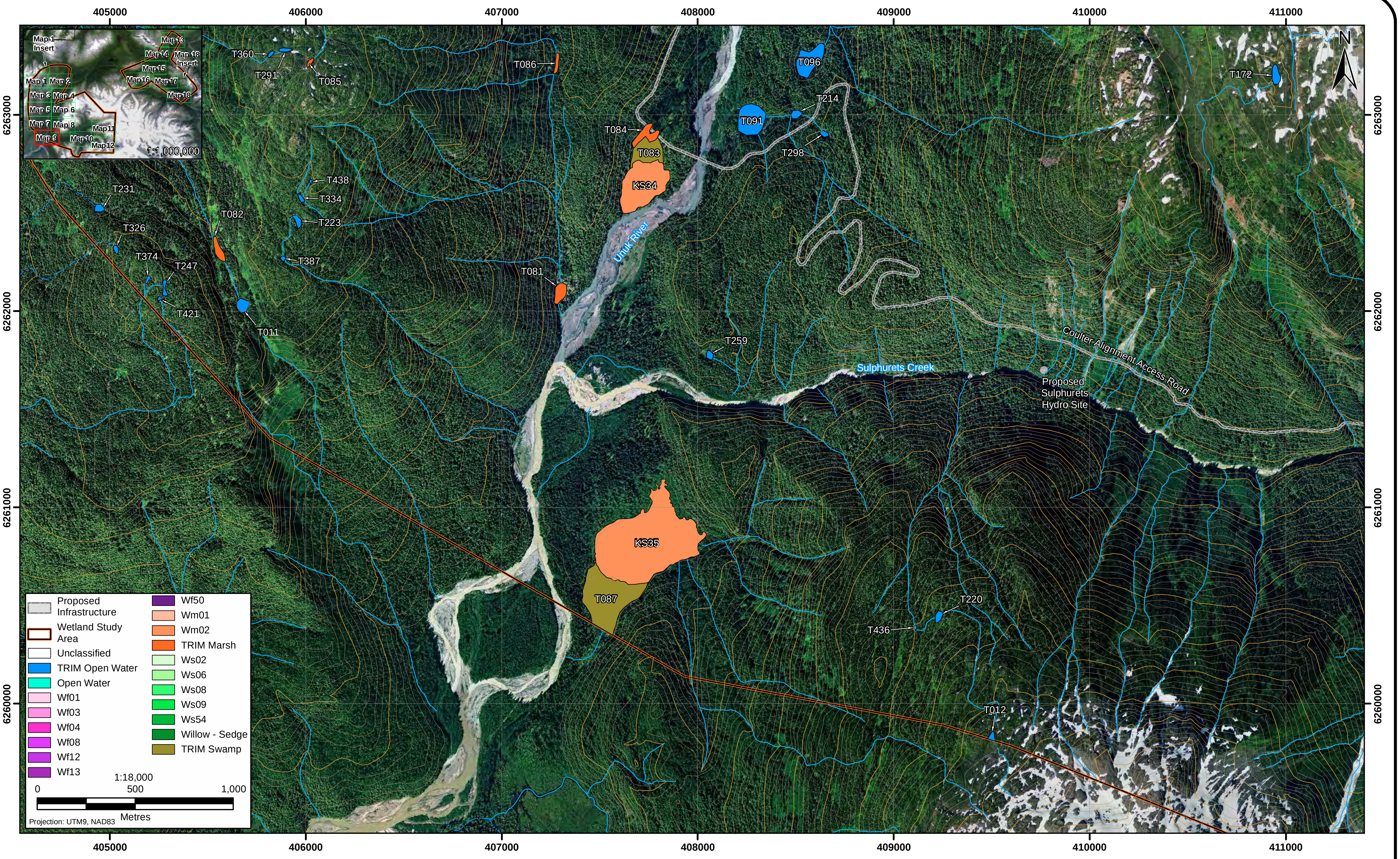

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FIGURE 4.2-9

Wetland Distribution in the KSM Wetland Study Area Map 9

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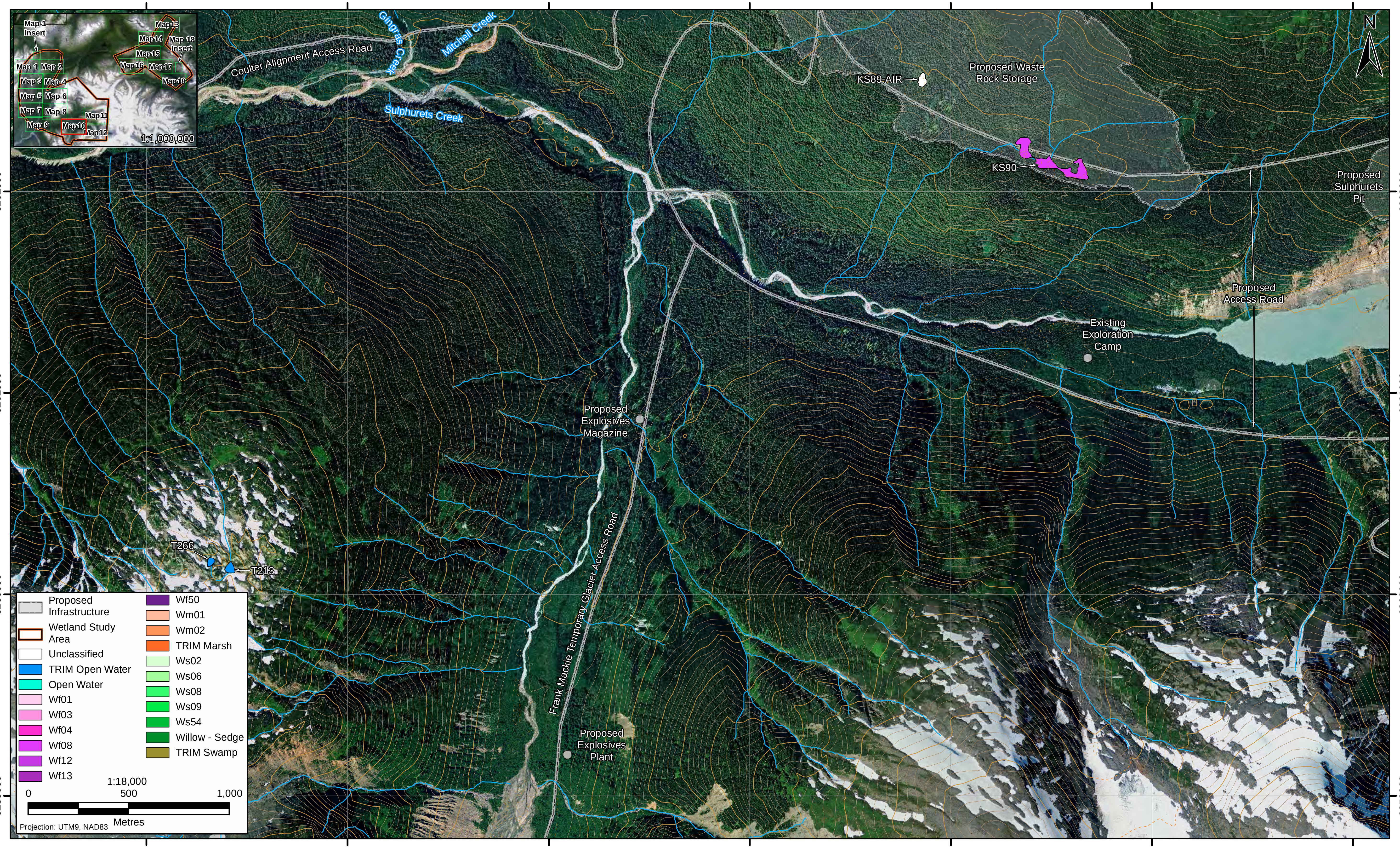

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Wetland Distribution in the KSM Wetland Study Area Map 10

FIGURE 4.2-10

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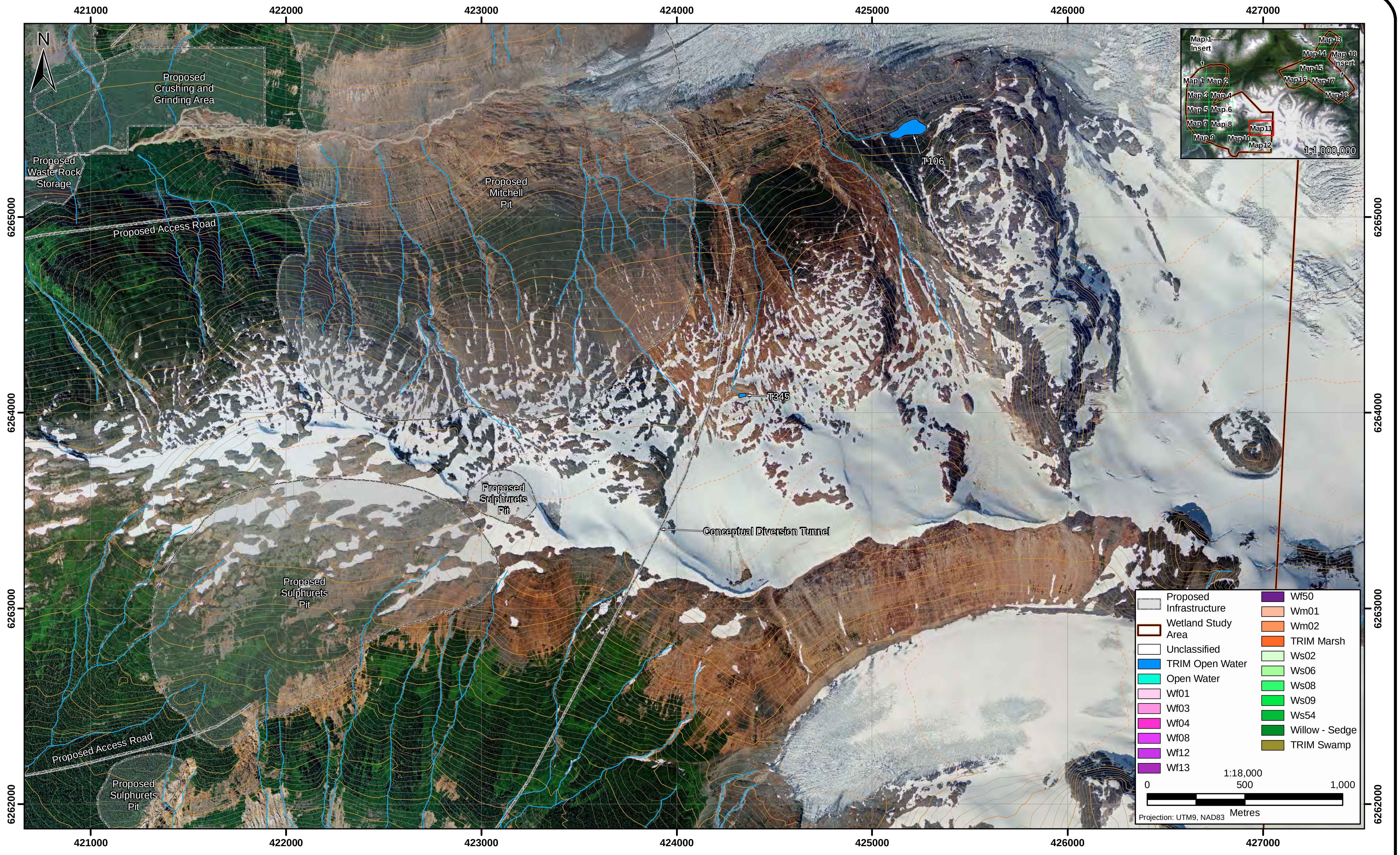

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Wetland Distribution in the KSM Wetland Study Area Map 11

FIGURE 4.2-11

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Wetland Distribution in the KSM Wetland Study Area Map 12

FIGURE 4.2-12

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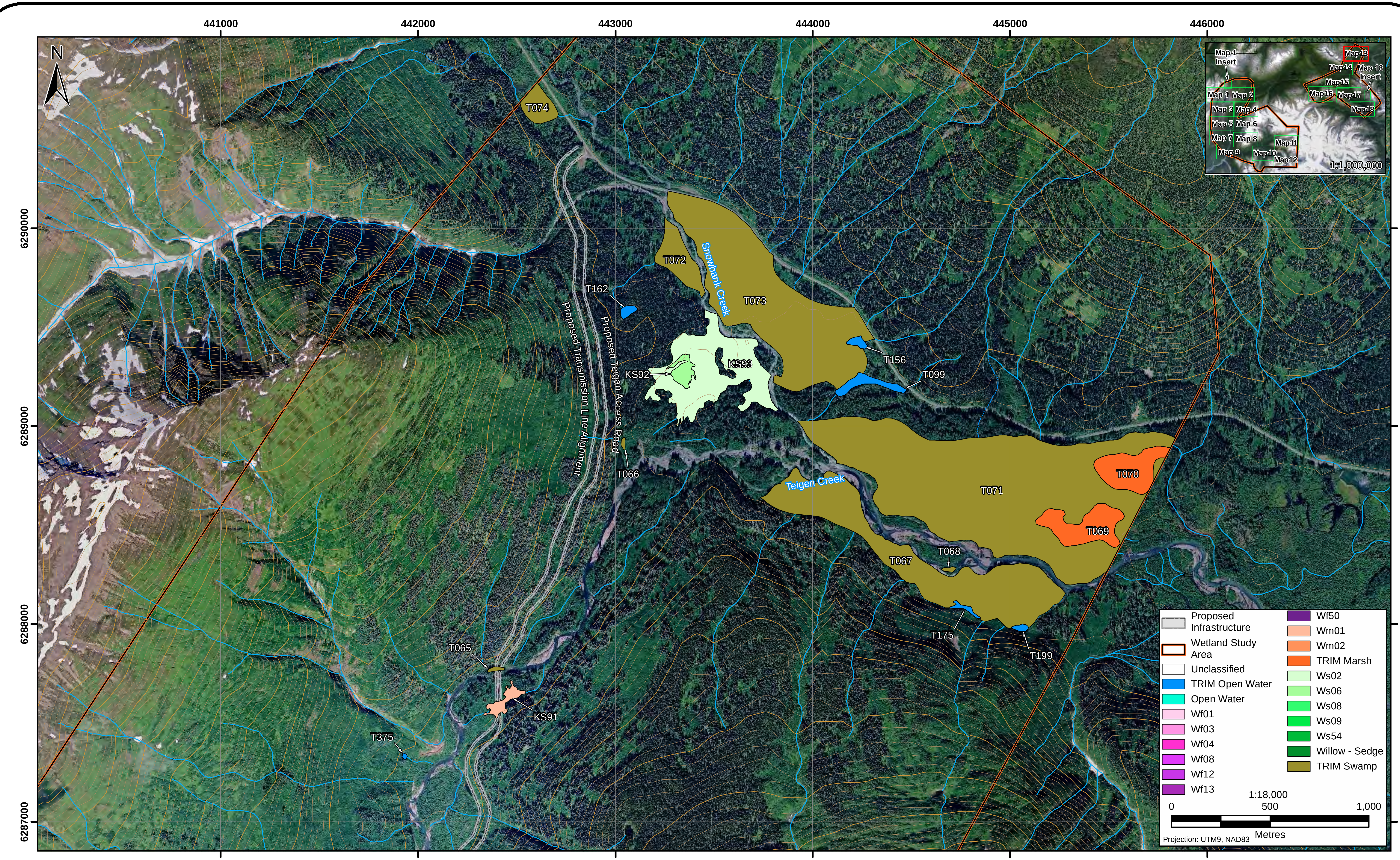
Engineers & Scientists



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Wetland Distribution in the KSM Wetland Study Area Map 13

FIGURE 4.2-13

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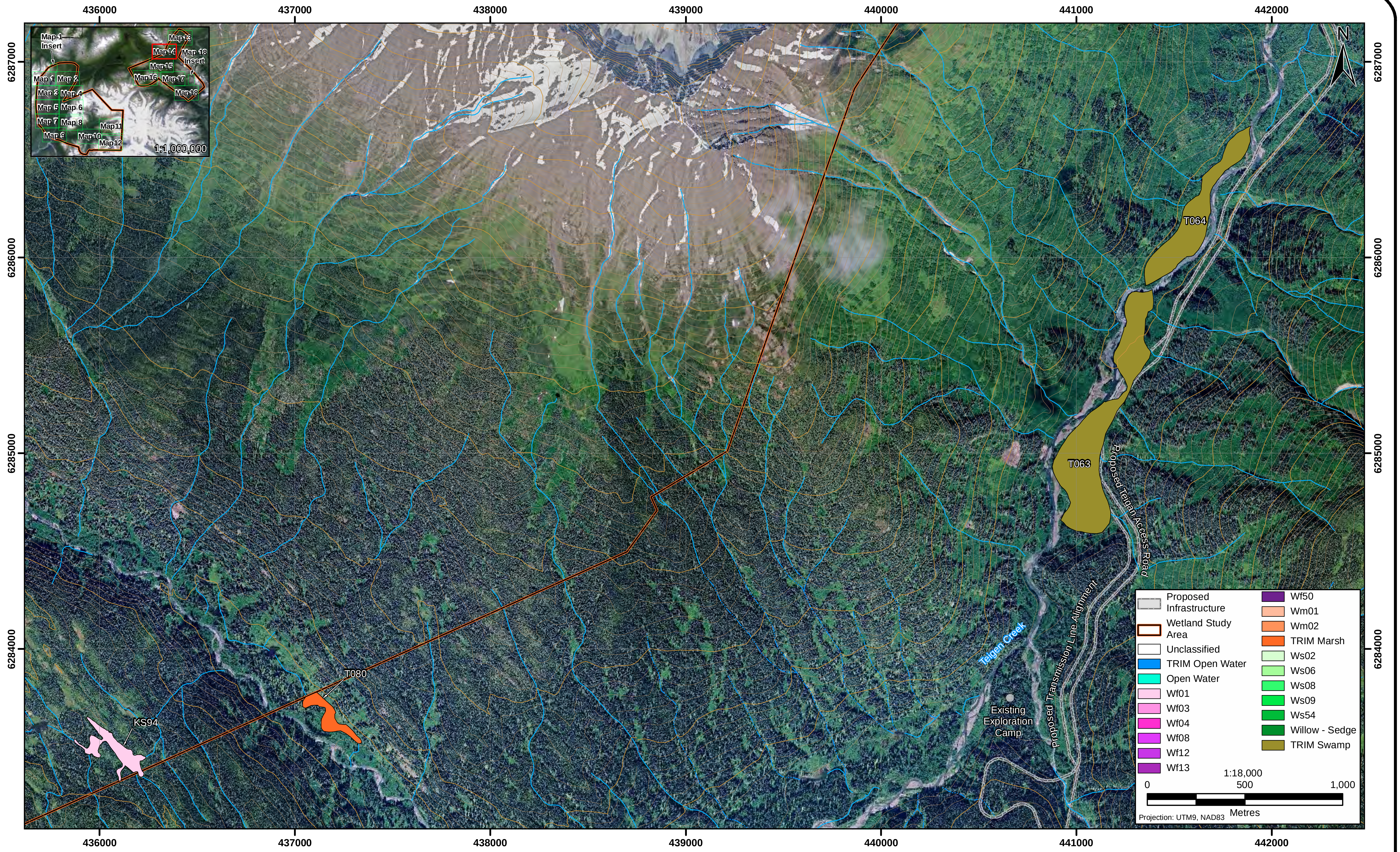

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FIGURE 4.2-14

Wetland Distribution in the KSM Wetland Study Area Map 14

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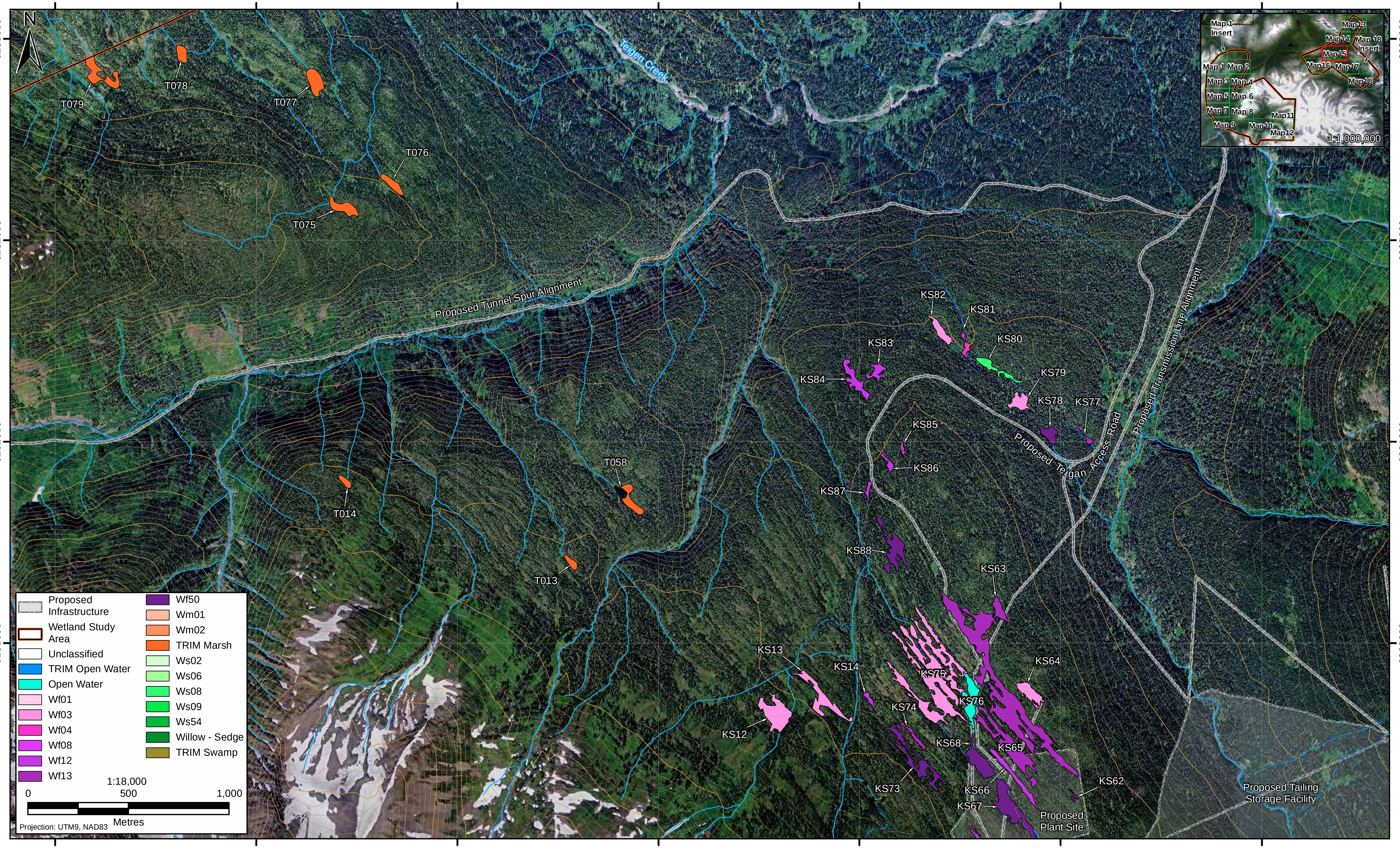

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FIGURE 4.2-15

Wetland Distribution in the KSM Wetland Study Area Map 15

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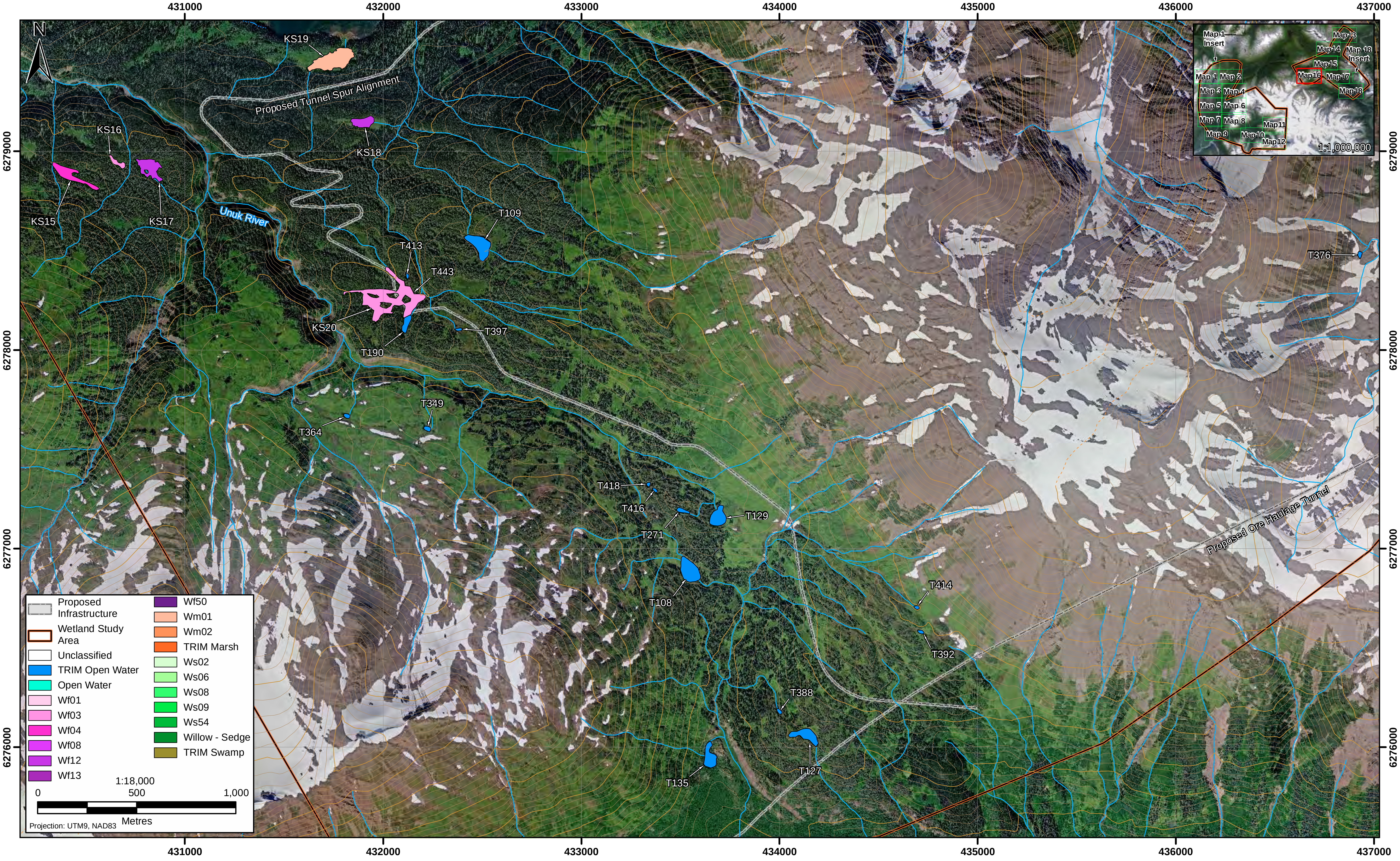

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FIGURE 4.2-16

Wetland Distribution in the KSM Wetland Study Area Map 16

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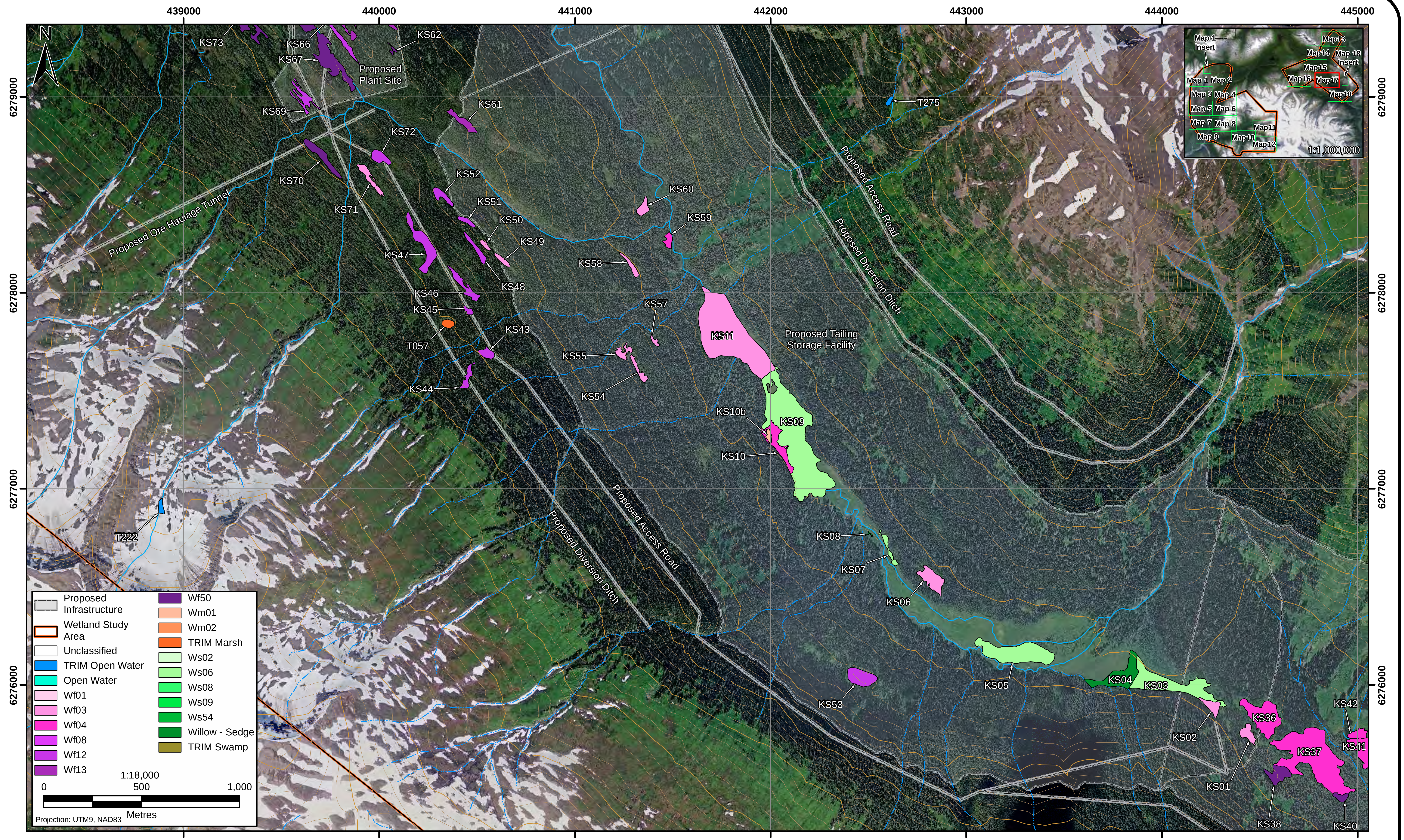

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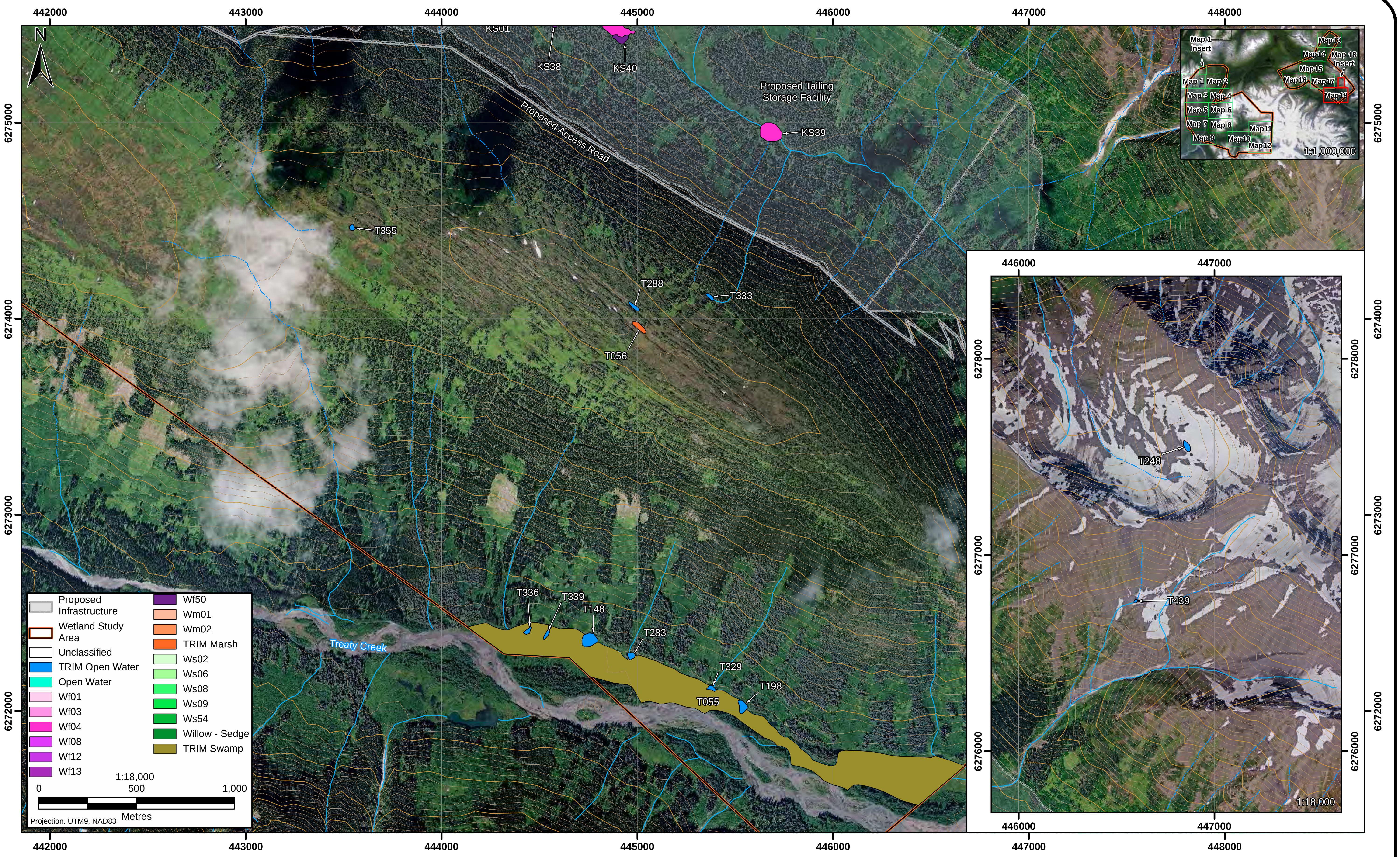
FIGURE 4.2-17

Wetland Distribution in the KSM Wetland Study Area Map 17

Rescan Engineers & Scientists



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Wetland Distribution in the KSM Wetland Study Area Map 18

FIGURE 4.2-18

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4.3 WETLAND HYDROLOGY

The hydrology monitoring results are presented for each wetland, for both 2008 and 2009 monitoring years in the following section. The results from monitoring static water level data are presented as lateral and longitudinal transects. All data for the static measurements were referenced to a common surveyed control point in each wetland. The continuous data are presented as daily average timeseries and are referenced to the ground surface at each well.

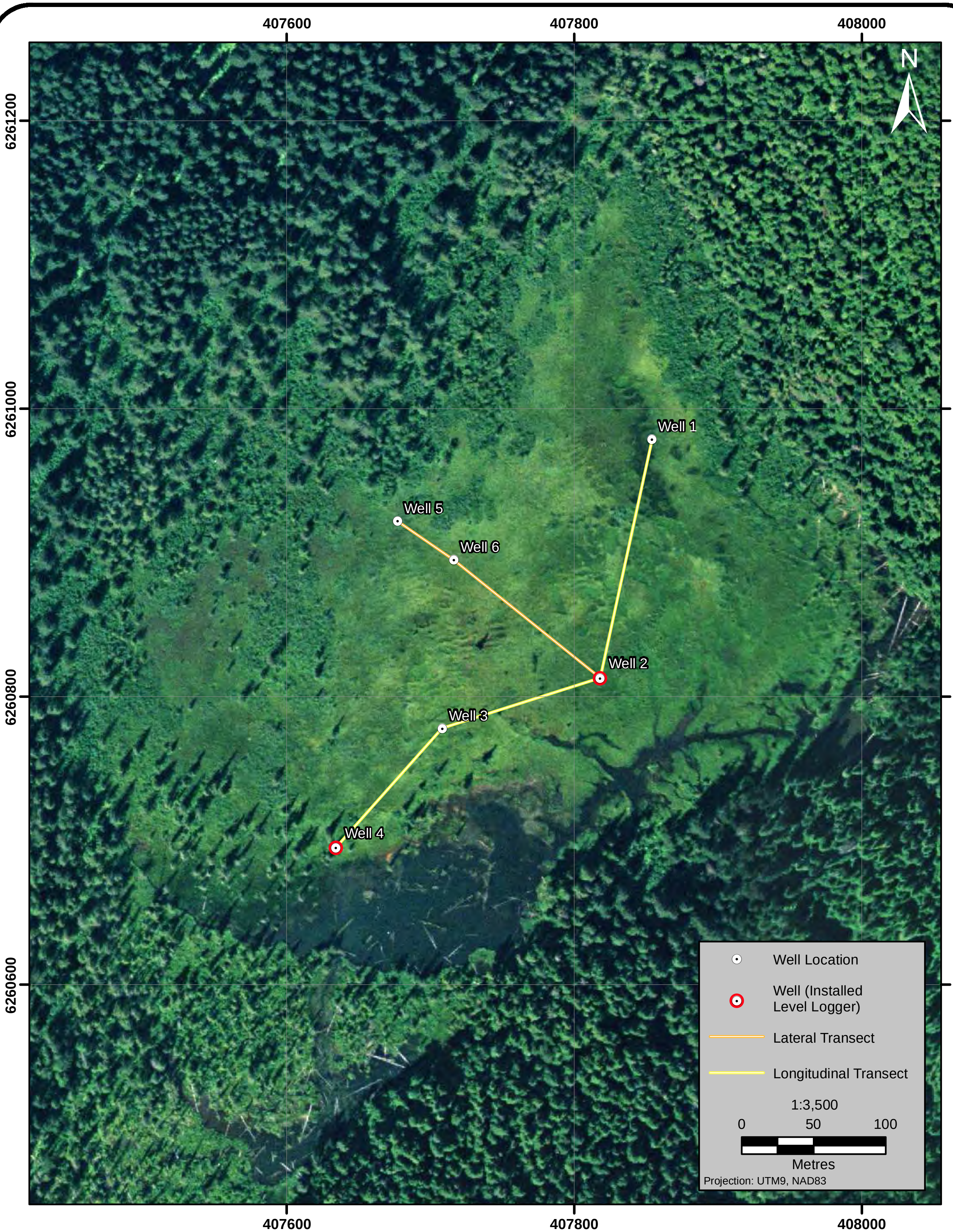
4.3.1 Wetland UR1

Wetland UR1 is located to the south of the confluence of Sulphurets Creek and the Unuk River. The southern edge of the wetland is defined by a large pond of water with steep slopes on the opposite side. The lateral cross-section of the wetland was measured on relatively flat ground, upslope from the large pond and comprised wells 2, 5, and 6, (Plate 4.3-1). The longitudinal cross-section comprised wells 1, 2, 3, and 4. Leveloggers were installed in Wells 2 and 4. A schematic of the well locations and levelogger installations is shown in Figure 4.3-1.

Plate 4.3-1. Wetland UR1 (view to the south). June 2008.

4.3.1.1 Static Monitoring

The 2008 static water level measurements of the wells in wetland UR1 showed small increases in water levels from June to September, followed by a small decrease in late September (Figure 4.3-2). In 2008, there was little variability between measurements taken at each well from one period to the next compared to 2009 (Figure 4.3-3). In 2009, water levels were high in June following snowmelt. Water levels dropped in the summer likely due to warm temperatures and high evapotranspiration in July. Water levels increased in September and October due to fall rain episodes (Figure 4.3-3). In wetland UR1, it was not clear whether the direction of flow followed the lateral or longitudinal transects more closely.



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UR1 Wetland Hydrological Monitoring Site

FIGURE 4.3-1

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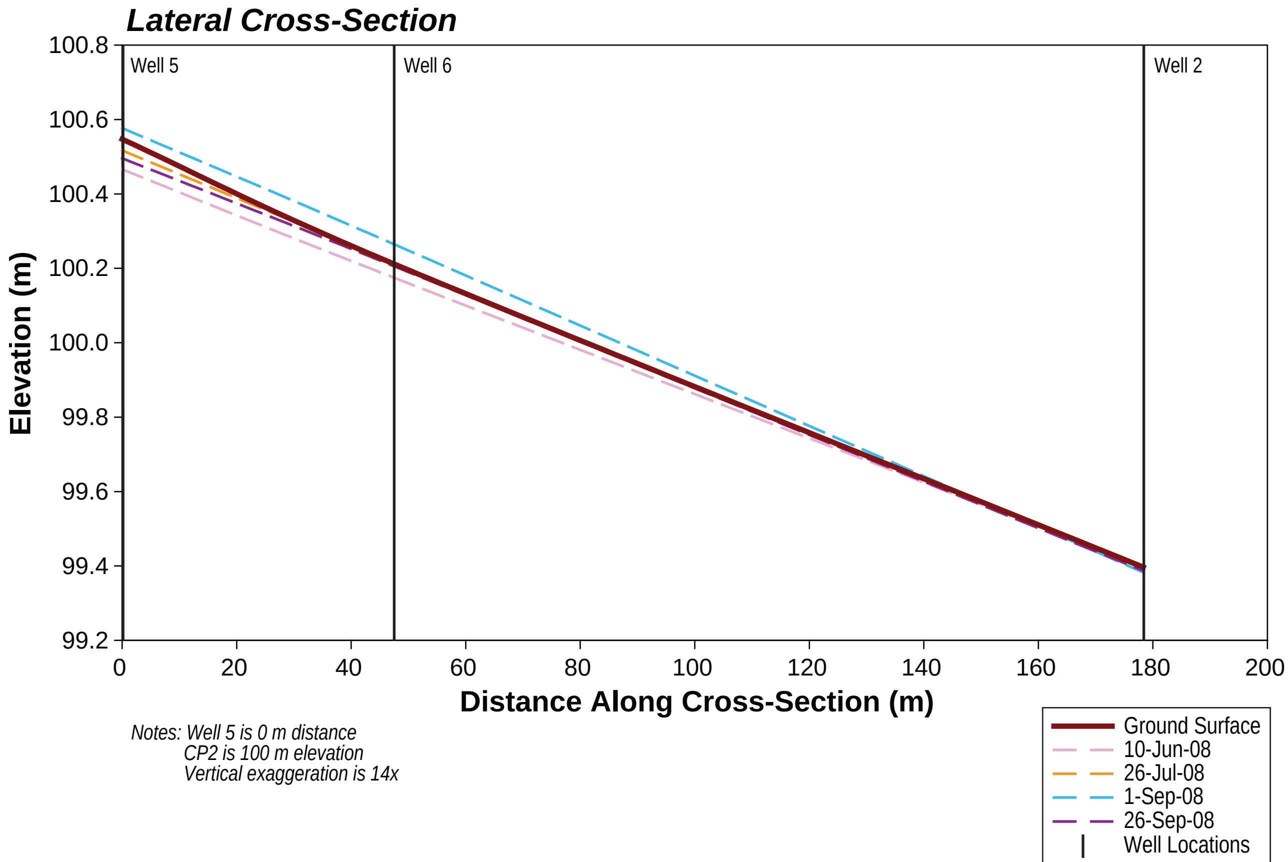
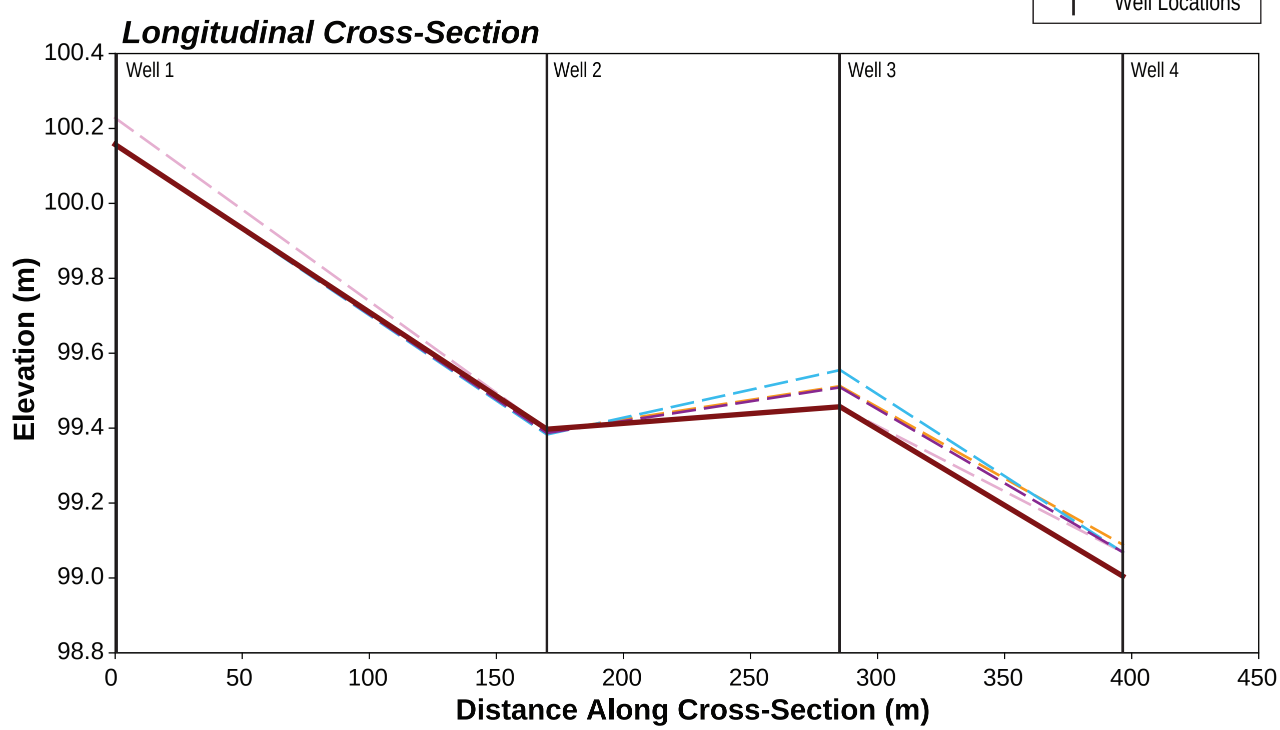


Notes: Well 5 is 0 m distance
CP2 is 100 m elevation
Vertical exaggeration is 14x



Notes: Well 1 is 0 m distance
CP2 is 100 m elevation
Vertical exaggeration is 24x

FIGURE 4.3-2

UR1 Static Water Levels, 2008

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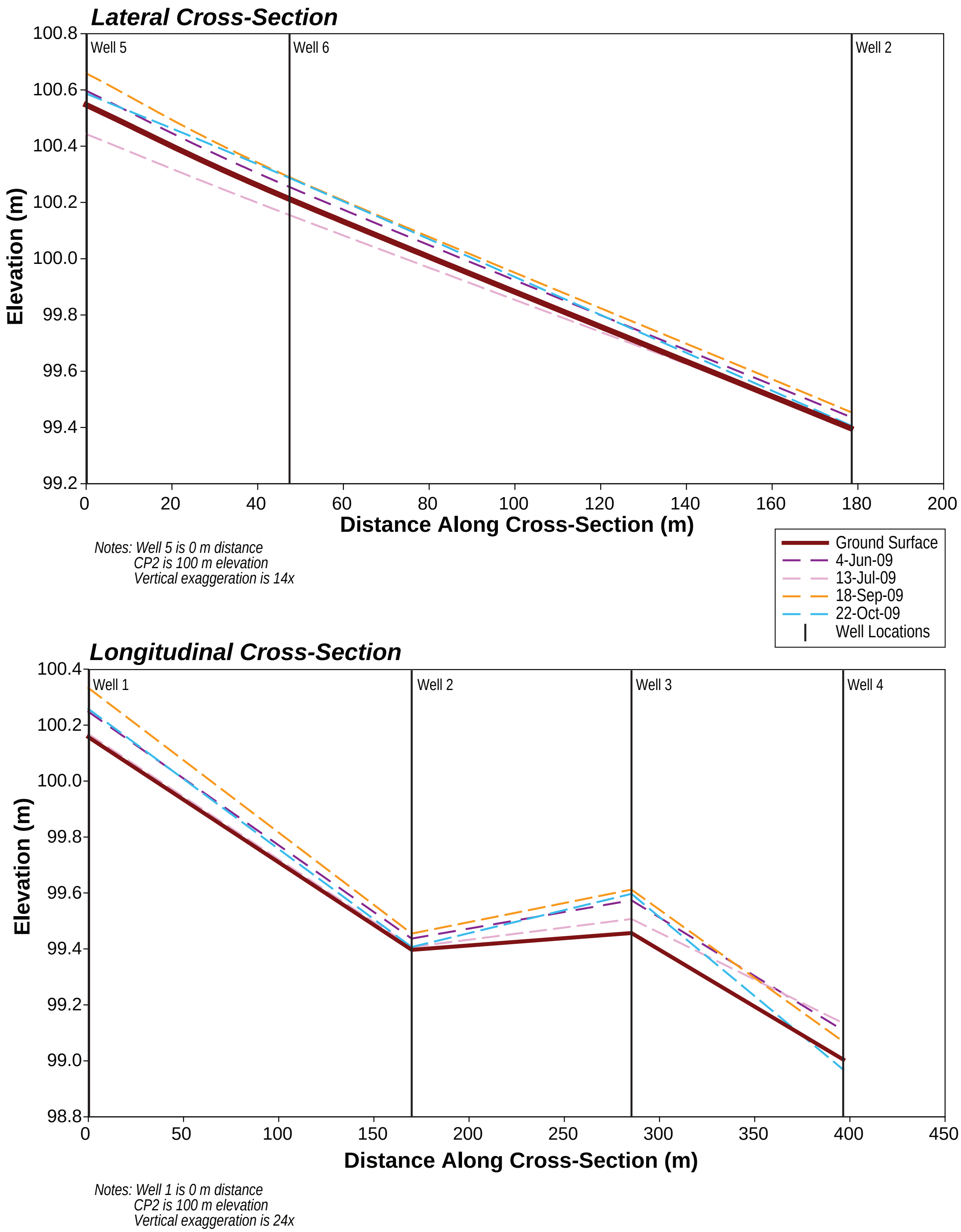

FIGURE 4.3-3

UR1 Static Water Levels, 2009

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4.3.1.2 Continuous Monitoring

In 2008, continuous monitoring in Well 4 began on June 8, following the installation of a level logger. A levelogger was also installed in Well 2 and began operating on July 28. In both wells, there was little fluctuation in wetland water levels, which suggests a low sensitivity to precipitation events (Figure 4.3-4). For example, the average daily water levels in Well 2 varied by 0.11 and 0.14 m during the 2008 and 2009 monitoring years, respectively (Figure 4.3-4). A similar degree of variability occurred in Well 4. However, suspect data in the form of anomalously high water table values were recorded in this well from September 16, 2009 until the end of the monitoring period. Beaver damming activities in the large pond, located nearby and lower relative to Well 4, caused the unusually high water levels (Figure 4.3-4).

Except for the anomalous data recorded at Well 4 in the fall of 2009, water levels in both wells were near the ground surface for the majority of the monitoring periods. In 2008, the water table was above ground for the entire monitoring season at Well 4. In 2009, water levels in Well 4 were just below the surface of the ground in March, but the snowmelt period (April 4 to May 15) caused water levels to rise above the ground surface, where they stayed for the remainder of the season. Similar to Well 4, 2009 water levels in Well 2 increased by 0.08 m during the snowmelt period, and were briefly above the ground surface (Figure 4.3-4).

4.3.2 Wetland STE1

Wetland STE1 is located in South Teigen Creek in the area of the proposed TMF. The wetland is hydrologically connected to South Teigen Creek, which meanders down the centre of the wetland complex. The stream course has an average width of approximately 4 m. A survey of the main channel was conducted and was included in the lateral cross-section, which comprised wells 1, 2, and 3. The longitudinal cross-section of the wetland comprised wells 4, 2, 5, 6, and 7 (Plate 4.3-2). Leveloggers were installed in wells 4 and 7. A detailed layout of the monitoring wells installed within the wetland is shown in Figure 4.3-5.

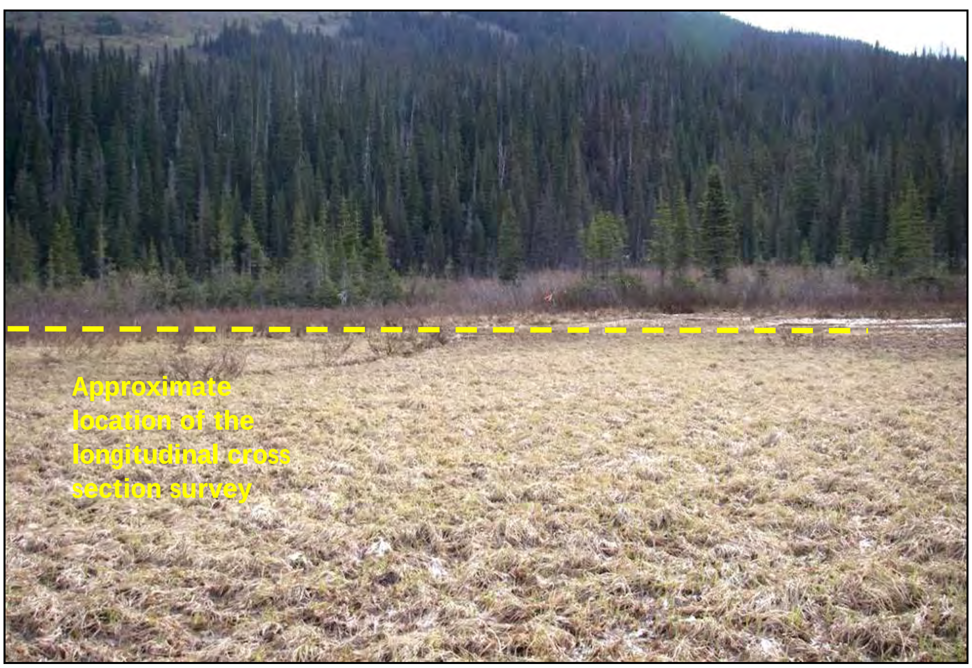
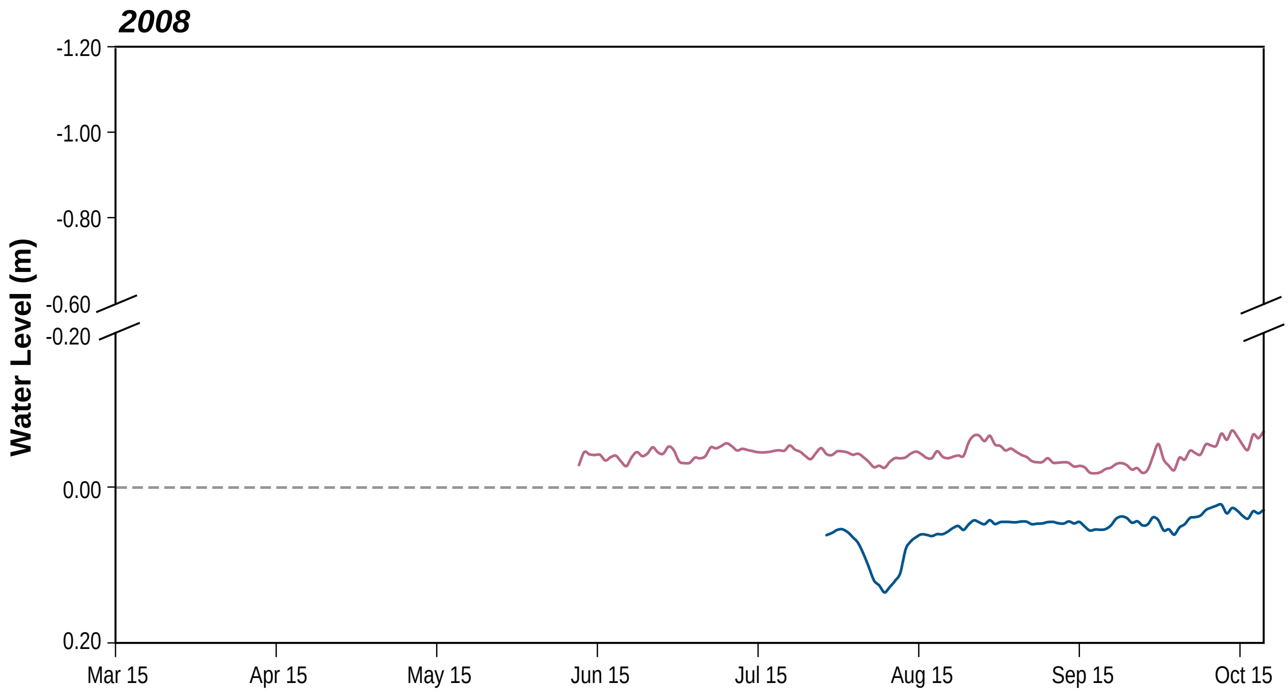
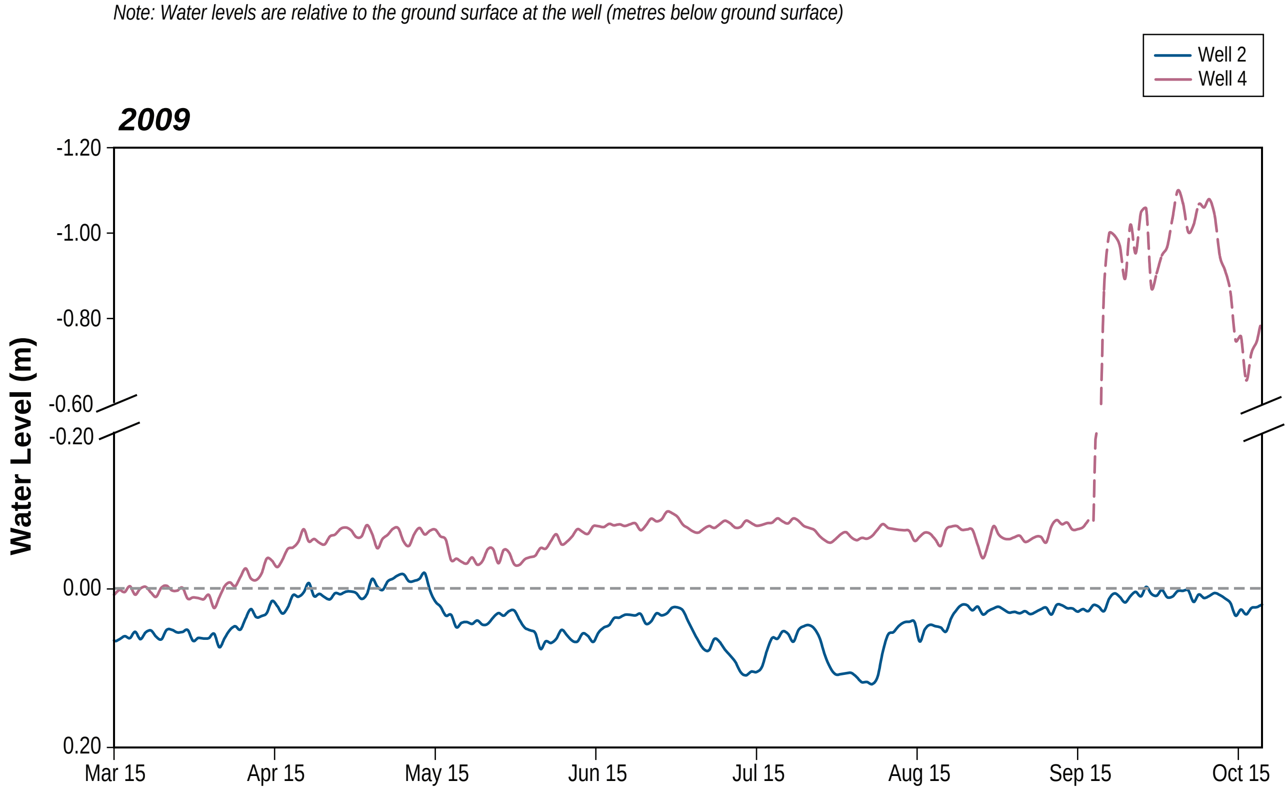


Plate 4.3-2. Wetland STE1 (view to the west). June 2008. The stream channel riparian vegetation is seen toward the background.



Note: Water levels are relative to the ground surface at the well (metres below ground surface)



Note: Water levels are relative to the ground surface at each well (metres below ground surface)
The dashed line indicating water level for Well 4 indicates unusual data likely resulting from beaver damming.

UR1 Continuous Water Levels, 2008 and 2009

FIGURE 4.3-4

SEABRIDGE GOLD

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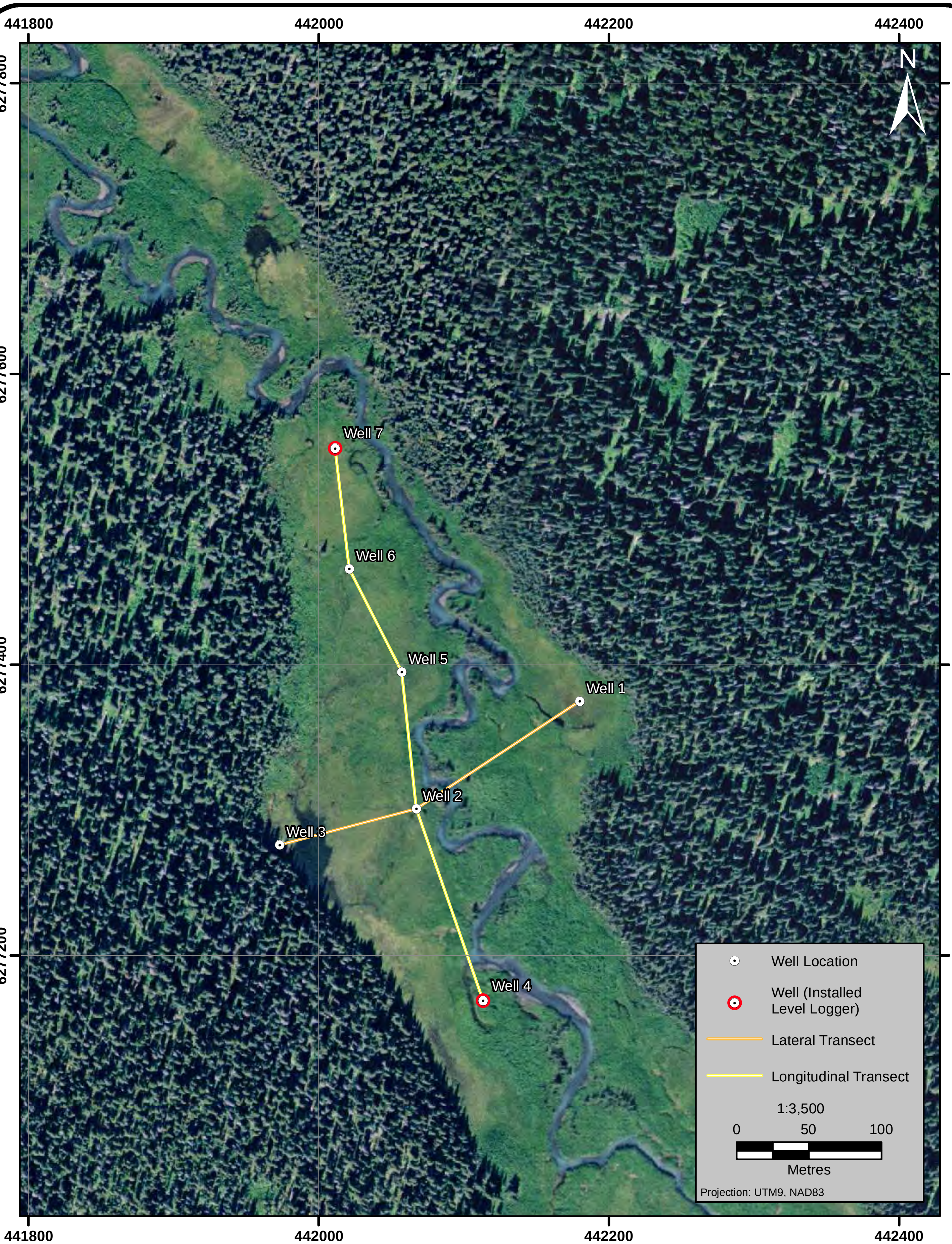


SEABRIDGE GOLD

STE1 Wetland Hydrological Monitoring Site

FIGURE 4.3-5

Rescan

4.3.2.1 Static Monitoring

Static water levels in wetland STE1 were lowest when the wells were installed in June 2008, after snowmelt had occurred (Figure 4.3-6). Rainy periods were prevalent in July and August, which explains higher static water levels recorded during these months, except for Well 4. In 2009, late snowmelt caused high water levels in June. However, static water levels decreased into the summer months (Figure 4.3-7). Differences in water levels were generally consistent between wells from one static measurement date to the next, especially for the lateral transect.

4.3.2.2 Continuous Monitoring

The leveloggers were installed after the snowmelt had occurred at STE1 in 2008. At both wells, the water level was below ground surface for the 2008 and 2009 monitoring periods (Figure 4.3-8). For both years, the water level was closer to the ground surface at Well 7, and varied less, compared to that at Well 4. In 2008 for example, the water level at Well 7 rose to 0.02 m below ground surface, and dropped to a maximum of 0.11 m below ground surface. Water levels at Well 4 varied from 0.26 to 0.81 m below ground surface in 2008. Well 4 is situated on higher ground and is surrounded by different soils compared to Well 7 which explains why water levels fluctuated more in Well 4. Likely for the same reasons, water levels in Well 4 showed a greater response to the 2009 spring snowmelt, when the water table spiked on June 8th (Figure 4.3-8). Apart from the snowmelt event, water levels remained below the level of the levelogger for the 2009 monitoring season.

4.3.3 Wetland NTR1

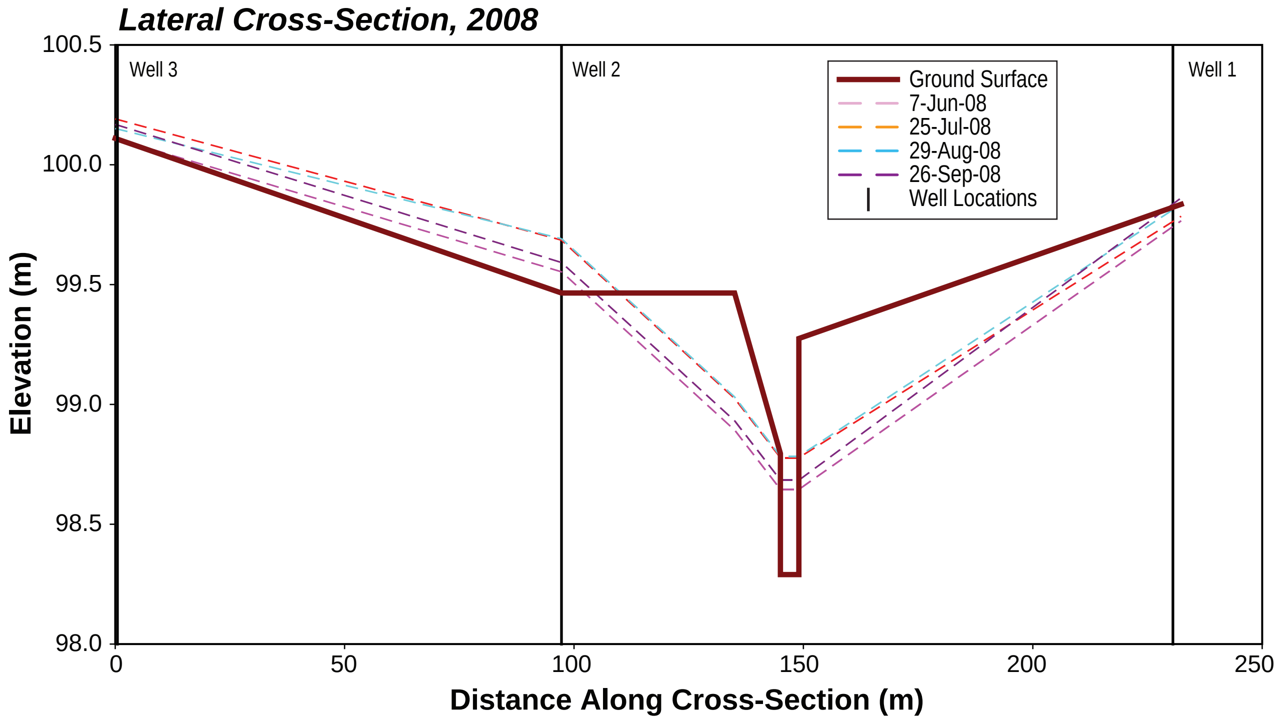
Wetland NTR1 is located at the headwaters of North Treaty Creek. The wetland is located approximately 3 km southeast of the STE1 wetland, and is close to the drainage divide between the South Teigen and North Treaty creeks. Ponds are located to the west of the wetland, followed by a heavily treed area (Plate 4.3-3 and Figure 4.3-9). The lateral cross-section survey was performed along the short axis of the wetland, and comprised wells 1, 2, and 3 (note that Well 3 was located on high ground). Four wells (2, 4, 5, and 6) were installed along a longitudinal cross-section (parallel to the assumed direction of flow) (Plate 4.3-3). No leveloggers were installed within the monitoring wells of this wetland.

4.3.3.1 Static Monitoring

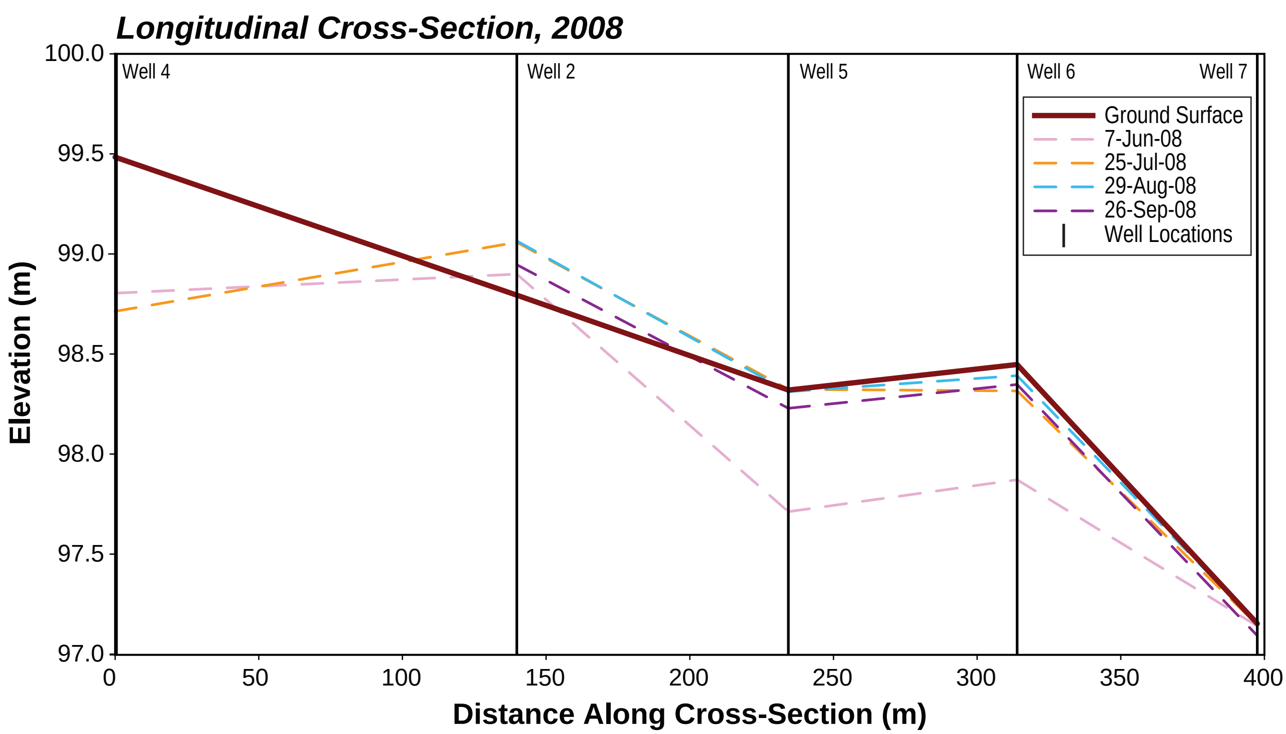
The static monitoring results in NTR1 show that there was slightly more variability in water levels from one date to the next within the longitudinal cross-section compared to the lateral cross-section, in both 2008 (Figure 4.3-10) and 2009 (Figure 4.3-11). Along the lateral transect, the water table remained close to the ground surface throughout both monitoring periods, with the exception of the June 2008 water level in Well 2. Along the longitudinal transect there was more variability in water level from one date to the next in 2008 compared to 2009.

4.4 WETLAND FUNCTION

Wetland function is a process or series of processes a wetland carries out such as its ability to regulate water levels to attenuate flow, filter water to improve water quality, and provide aquatic and terrestrial habitat for aquatic and semi-aquatic species. Wetland function is separated into four primary categories (hydrology, biochemical, ecological, and habitat) (Environment Canada 2003). The following is a description of the primary wetland functions identified in the study area.



Notes: Well 3 is 0 m distance
CP2 is 100 m elevation
Vertical exaggeration is 52x



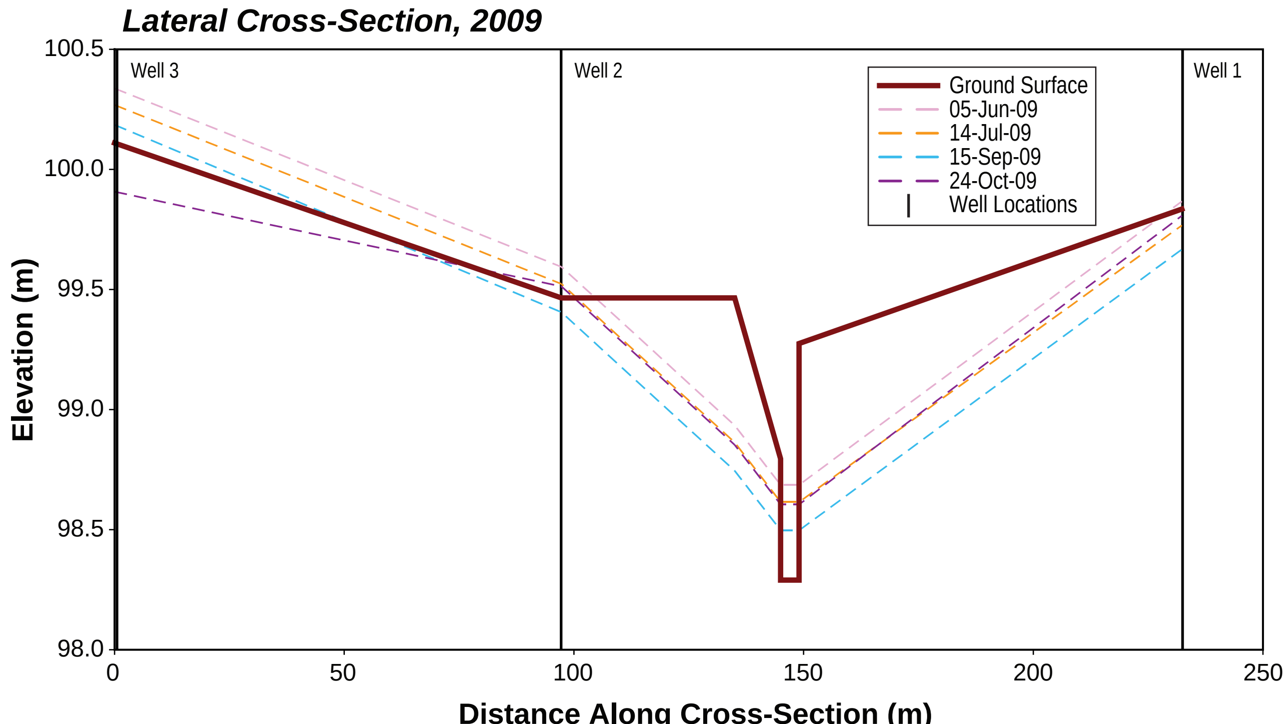
Notes: Well 4 is 0 m distance
CP2 is 100 m elevation
Vertical exaggeration is 81x

STE1 Static Water Levels, 2008

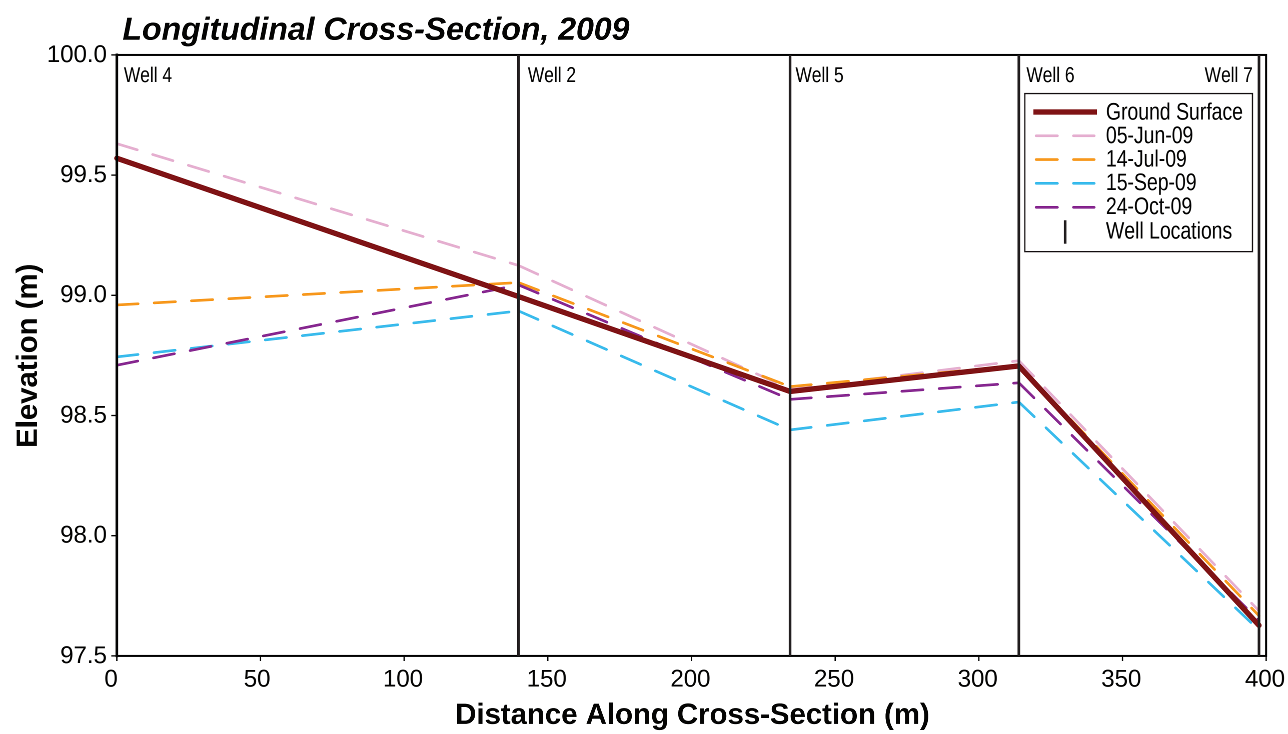
FIGURE 4.3-6

SEABRIDGE GOLD

Rescan™



Notes: Well 1 is 0 m distance
CP2 is 100 m elevation
Vertical exaggeration is 14x



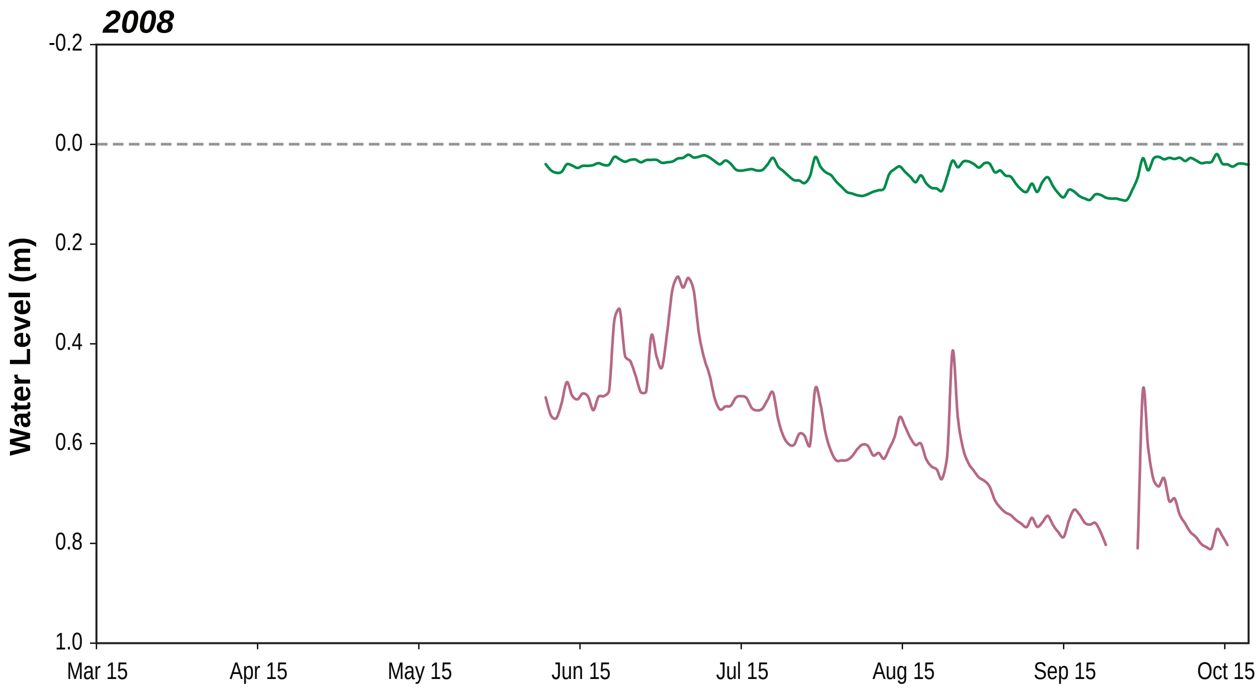
Notes: Well 4 is 0 m distance
CP2 is 100 m elevation
Vertical exaggeration is 24x

FIGURE 4.3-7

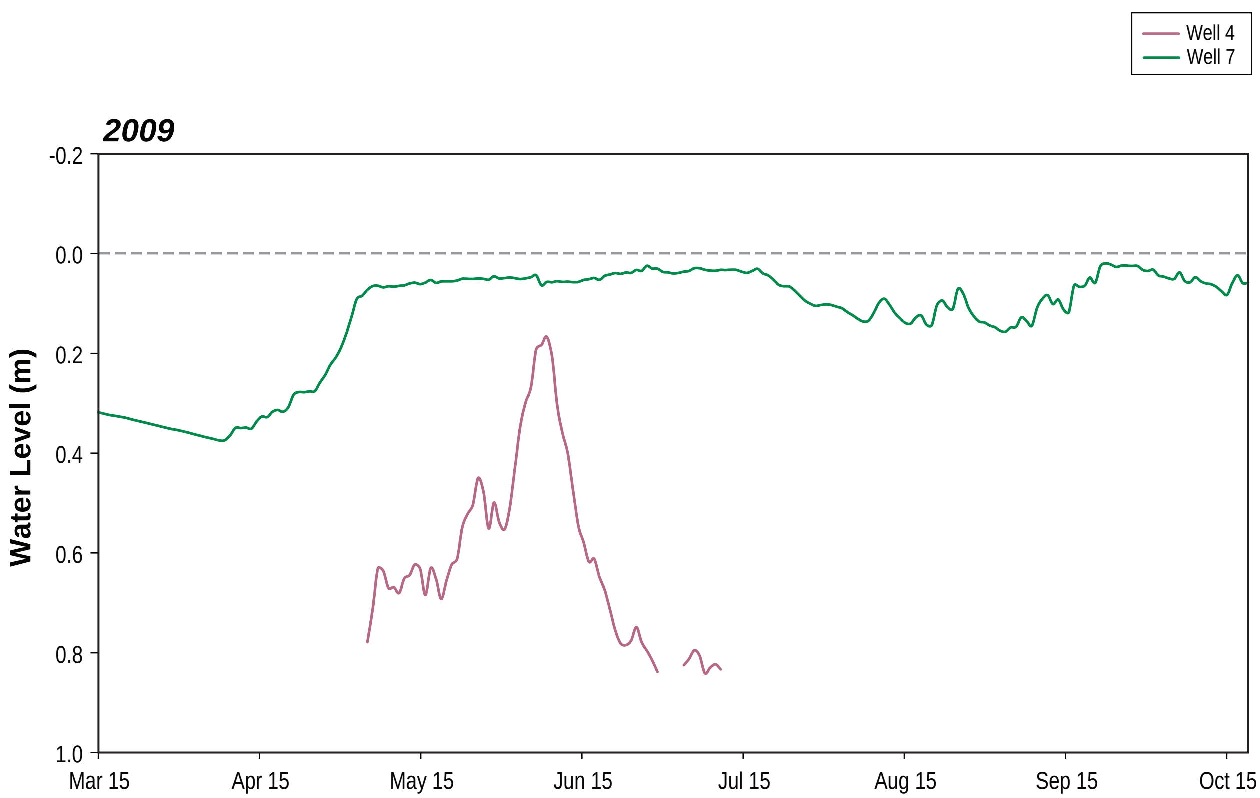
STE1 Static Water Levels, 2009

SEABRIDGE GOLD

ai no. a26462w Job No. 868-004-04 08/02/2010-4:00pm



Note: Water levels are relative to the ground surface at each well (metres below ground surface)

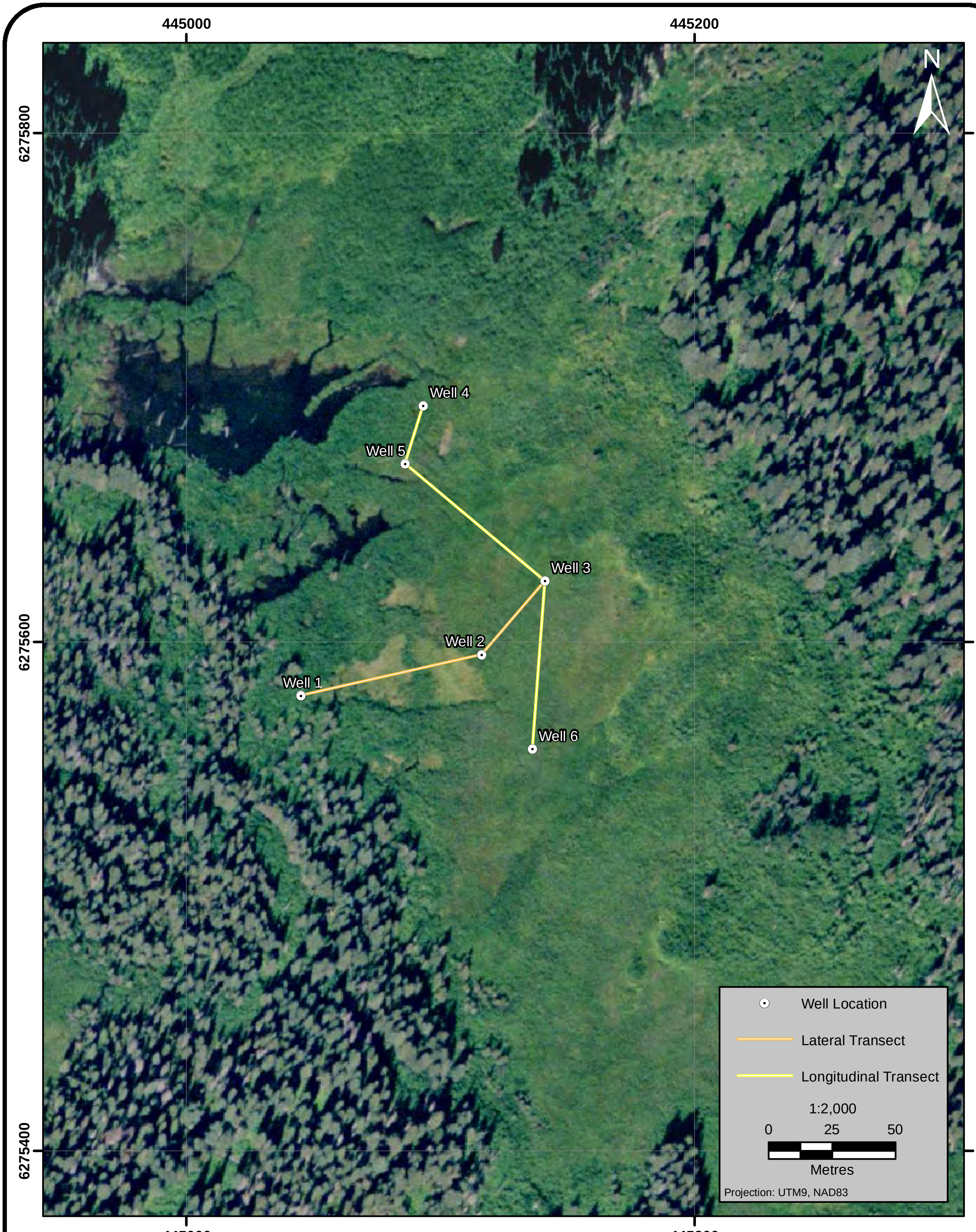


Note: Water levels are relative to the ground surface at each well (metres below ground surface)

FIGURE 4.3-8

STE1 Continuous Water Levels, 2008 and 2009

SEABRIDGE GOLD



SEABRIDGE GOLD

NTR1 Wetland Hydrological Monitoring Site

FIGURE 4.3-9

Rescan™

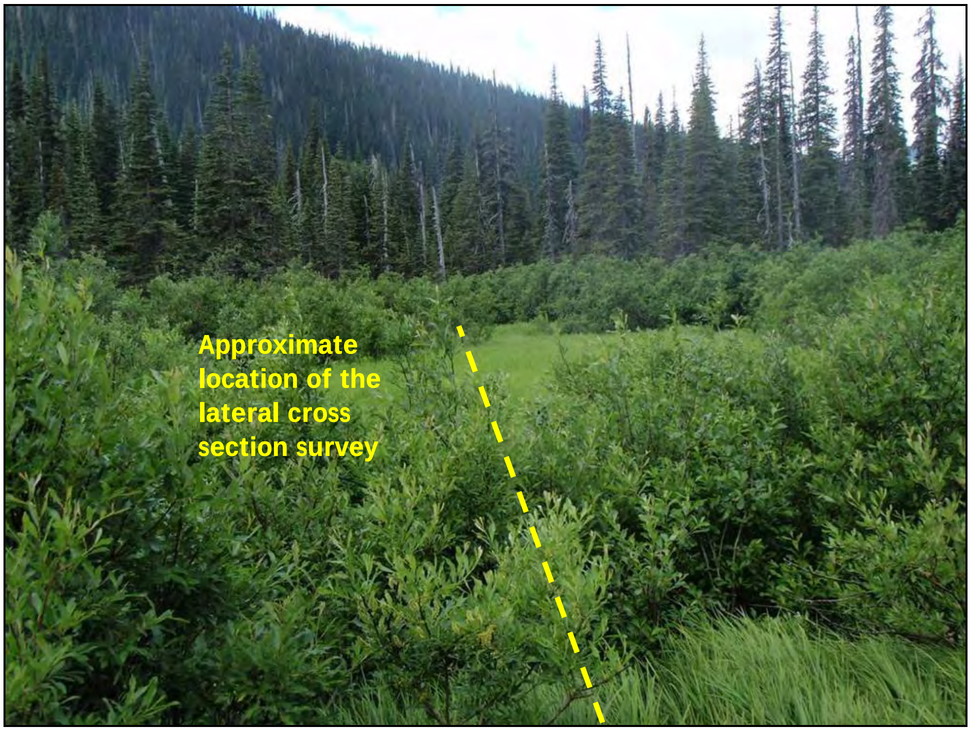


Plate 4.3-3. Wetland NTR1 (view to the west). July 2009. The wetland contained many small stream channels with riparian vegetation, which increased the difficulty of conducting surveys.

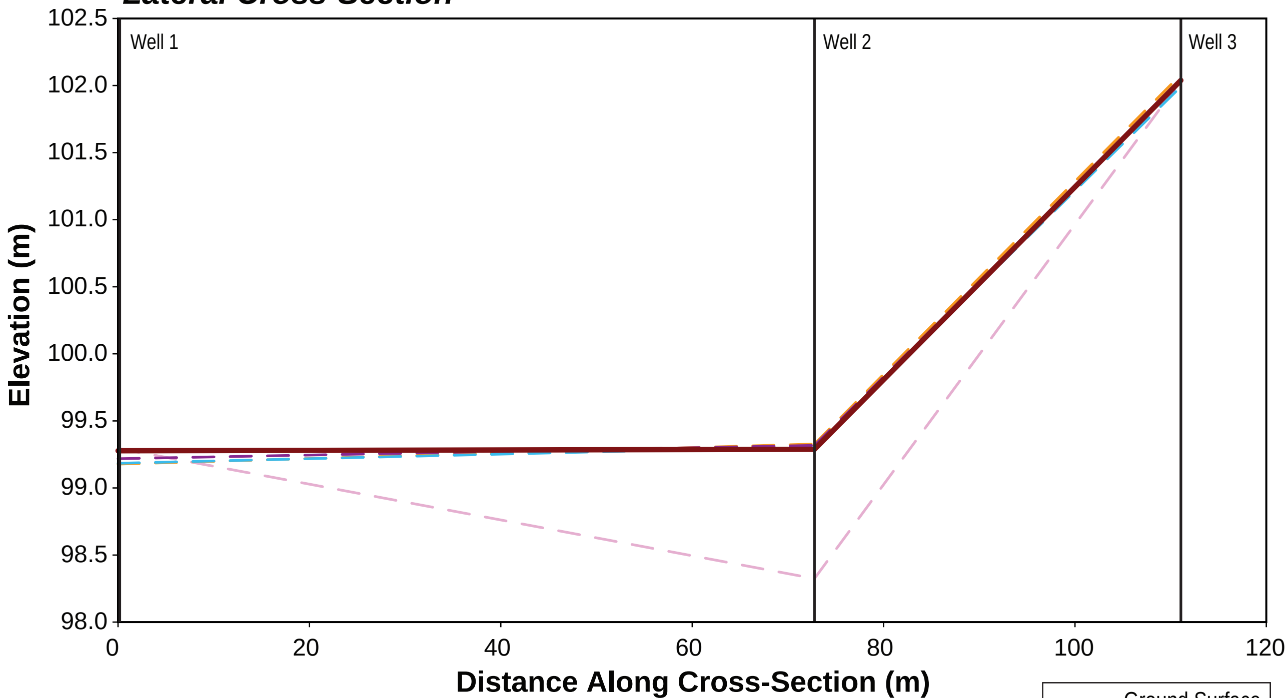
4.4.1 Hydrologic Function

Hydrologic function is defined as a wetlands contribution to ground and surface water resources. The hydrologic function of wetlands in the KSM study area is varied because of the variety of wetland classes and landscape position. Physical features of wetlands and geographical properties such as wetland class, landscape position, and hydrodynamic index both influence and are influenced by wetland hydrologic function.

Shallow wells were installed in three wetlands within the KSM Project area. At wetlands UR1 and STE1, static water levels were collected on eight dates and continuous water level monitoring occurred in two of the wells at each wetland during the 2008 and 2009 monitoring seasons. At wetland NTR1, water levels were collected on seven dates and no continuous water level monitoring was conducted. The installed shallow wells provided a means of quantifying relative changes in water levels through time, along lateral and longitudinal cross-sections of the wetlands. Generally, observations showed that water levels were high during the spring snowmelt period, which occurred in April or early May. Depending on climatic conditions, water levels decreased during the warm summer months, after the snowpack had been depleted. During the wettest months of the year for the project area, which occurs between September and October, water levels increased.

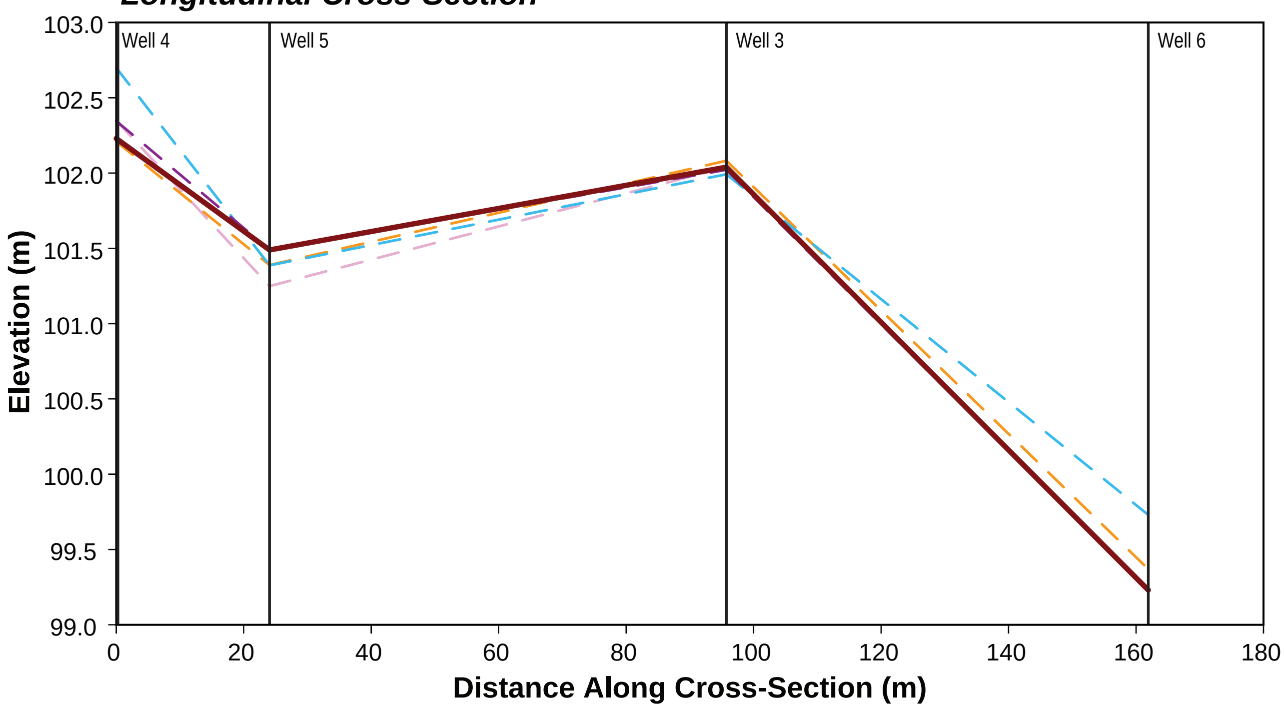
Exceptions to the above patterns were observed, and these are attributed to local effects on well water levels. For example, wells located on higher ground within a given wetland, such as Well 4 at STE1, reacted more quickly to precipitation or snowmelt events. Wells that were located on lower ground within a given wetland, such as Well 7 at STE1 and Well 2 at UR1, received greater groundwater contributions and water level changes in them were more moderated. Generally for all wetlands, more variability in static measurements was observed along transects that were parallel with the assumed direction of flow. The direction of flow, however, was not obvious for all wetlands (e.g., UR1).

Lateral Cross-Section



Notes: Well 1 is 0 m distance
CP2 is 100 m elevation
Vertical exaggeration is 14x

Longitudinal Cross-Section

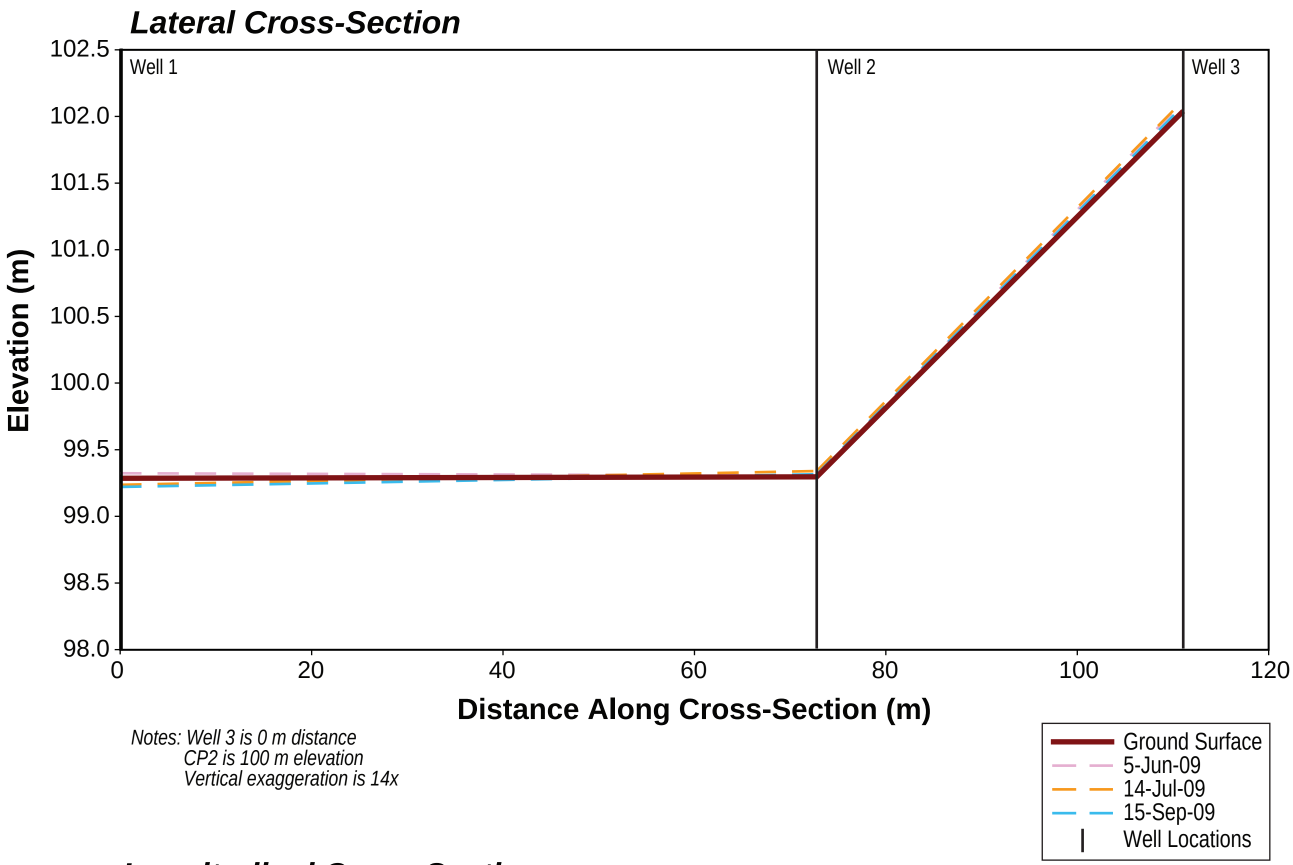


Notes: Well 4 is 0 m distance
CP2 is 100 m elevation
Vertical exaggeration is 24x

NTR1 Static Water Levels, 2008

FIGURE 4.3-10

SEABRIDGE GOLD



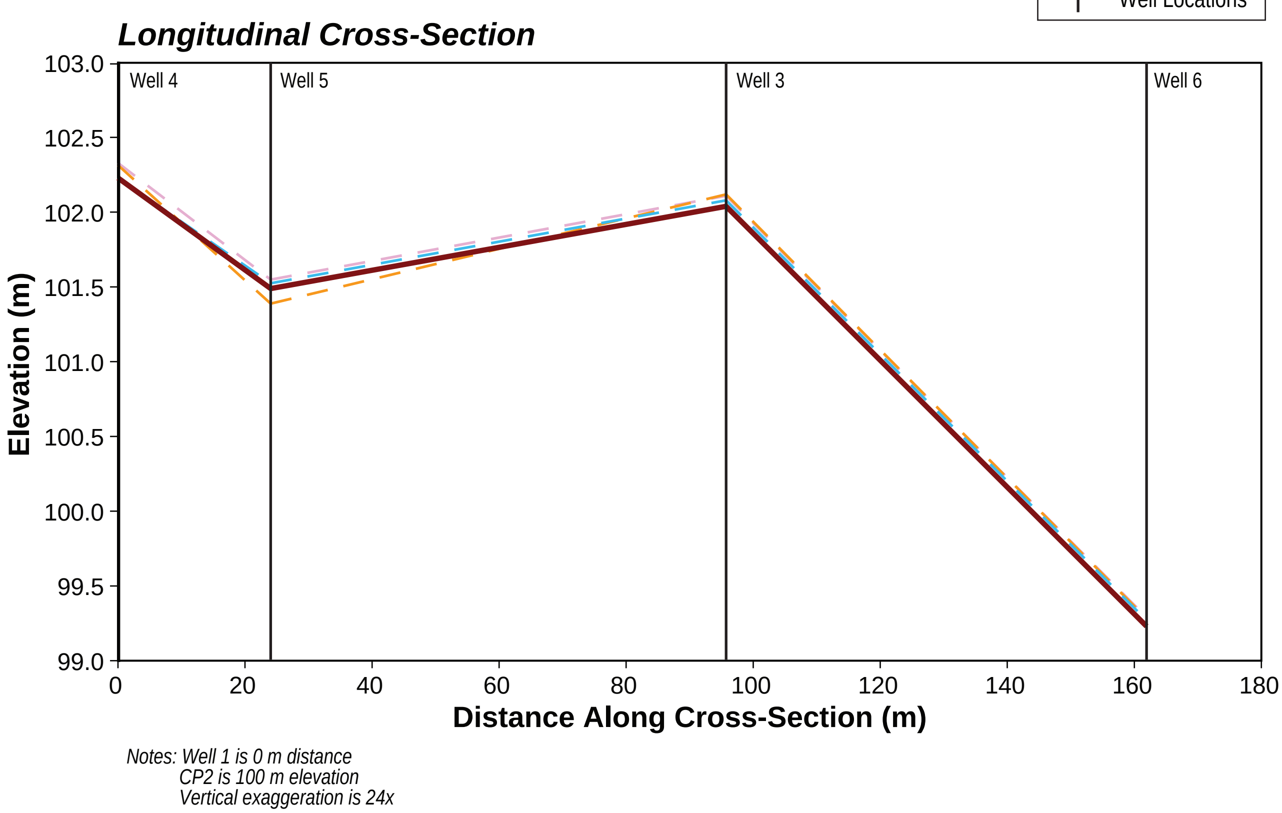


FIGURE 4.3-11

NTR1 Static Water Levels, 2009

SEABRIDGE GOLD

Rescan™

The majority of the wetlands were small shallow open water wetlands identified as TRIM open water. Although these sites are mapped as lakes, small (<2 ha) open water features are typically associated with wetlands, particularly in the alpine and subalpine BEC zones of the study area. The primary hydrology of these wetlands is storage. Water is held in these shallow open water wetlands and is therefore available to adjacent ecosystems and wildlife during the drier summer months (Plate 4.4-1). Although these wetlands were the most abundant as a percentage of total mapped wetlands, TRIM swamp wetlands accounted for 38% of all wetlands by area. Swamp wetlands, particularly riparian flat swamps and inlands swamps, have an important flood prevention function (Environment Canada 2008). They store water and release it slowly into surface water features over time (Plate 4.4-2).

Plate 4.4-1. Small Subalpine Pool.

Plate 4.4-2. Water Infiltrating into a Stream from Adjacent Swamp Complex.

Another important determinant of wetland hydrologic function is the size of individual wetlands. Smaller wetlands have a greater perimeter to volume ratio than larger wetlands and therefore better support groundwater recharge (Weller, 1994). Approximately 72% of all wetlands mapped were smaller than 0.5 ha (Table 4.4-1) and 11% of the area of all wetlands is represented by wetlands less than 0.5 ha. Although 72% of all mapped wetlands were less than 0.5 ha, wetlands greater than 5 ha accounted for approximately 60% of total wetland area.

Table 4.4-1. Distribution of Wetland Size

	<0.1 ha	0.1 - 0.25 ha	0.25 - 0.5 ha	0.5 - 2 ha	2 - 5 ha	5 - 10 ha	10 - 20 ha	>20 ha
Count	165	140	83	111	16	14	3	4
% Count	30.78	26.12	15.49	20.71	2.99	2.61	0.56	0.75
Area	9.99	21.84	30.99	110.71	46.50	100.53	51.72	182.04
% Area	1.8	3.94	5.59	19.97	8.39	18.14	9.33	32.84

4.4.2 Ecological Function

Wetland ecology is defined as the relationship between a wetland and surrounding ecosystems. Aspects of the wetland ecosystem function include rare or unique wetlands, wetland complexes, and biological productivity.

Wetlands were observed in six BEC subzones in the study area (Table 4.4-2). Particular attention was given to the search for red- and blue- listed wetland associations in these BEC zones of the Skeena Stikine Forest District. Of the 10 wetland associations identified, during the search, as red- or blue-listed in these sub-zones and forest district none were observed in these BEC subzones in the study area.

Table 4.4-2. Potentially Occurring Red- and Blue-listed Ecosystems

Subzones in the Study Area	BAFA unp	CMA unp	CWH wm	ESSF wv	ICH vc	MH un
Red and Blue Listed Wetland Associations	None	None	Wm50	None	Wb13	None
			Wf51		Wf51	
			Wf52		Wb04	
			Fl01		Fl01	
			CWH wm 09		Fl02	

An aspect of ecological function is the wetland complex, a combination of multiple wetland classes and associations. Wetland complexes accounted for 42 of the 94 wetland sites surveyed and 11 % of the total wetland area. It is also quite likely that large TRIM wetlands that were not visited are also wetland complexes, such as the wetland in the proposed tailings management facility (PTMF). The largest wetlands are TRIM swamps and likely represent a number of communities including non-wetland riparian forest and numerous flood associations.

4.4.3 Biochemical Function

The wetland biochemistry function is defined as a wetland's contribution to the quality of surface and groundwater of an area. Water, sediment, and vegetation components of a wetland influence its biological function. Accurately describing biochemical function is not possible given site specific interactions between wetland components (water, soil and vegetation), landscape position, and environmental factors such as salinity, precipitation, and climate (Almas and Singh, 2001; and Brunham, 2009). Aspects of the biochemical function of aquatic ecosystems were studied in the aquatic biology, and surface water and groundwater quality study reports. The pH and conductivity of wetlands were measured to aid in wetland classification (MacKenzie and Moran 2004) and provide baseline data on these aspects of biochemical function. The data confirm expectations; fens have the lowest average pH followed by swamps and then marshes (Table 4.4-3).

Table 4.4-3. Wetland pH and Conductivity

Wetland Class	Average of pH	Max of pH	Min of pH	Average Conductivity (μs)	Max Conductivity (μs)	Min Conductivity (μs)
Fen	5.4	6.8	4.6	43.1	180.0	10.0
Marsh	6.1	7.1	5.5	82.5	120.0	30.0
Shallow Open Water	6.7	6.7	6.7	10.0	10.0	10.0
Swamp	6.0	6.6	5.5	78.9	160.0	30.0

Identifying the primary biochemical function of wetlands in the study area is not possible given the different wetland classes, associations, and landscape position of wetlands in the study area. However, swamp wetlands accounted for the majority of wetlands by area and a variety of biochemical functions have been identified for this wetland class (Environment Canada 2008). Swamp wetlands have a potentially high ability to improve the physical, chemical, and biological water quality of an area due to a combination of physical processes, high interaction between water and the rhizosphere, soil matrix, and a multitude of micro-sites which result in a heterogeneity of oxidation (Environment Canada 2008).

4.4.4 Habitat Function

Wetland habitat function includes both terrestrial and aquatic habitat components and is defined as a wetland's contribution to the wildlife habitat within a given region. Wetlands in the study area maintain local and regional biodiversity by providing a wide range of aquatic and terrestrial habitat types, as confirmed by the variety of wildlife observed during the wetland field survey (Table 4.4-4). Wildlife observations included a number of mammalian, avian, and herptofauna species, although approximately 50% of all wildlife observations were moose (*Alces alces*).

No COSEWIC/SARA listed species were directly observed during wetland field studies. However, a number of herptofauna were observed during wetland field surveys (Plate 4.4-2) and Western Toads were observed during herptofauna surveys (Rescan 2010b).

Table 4.4-4. Wetland Survey: Incidental Wildlife Observations

Plot	Genus	Species	Feature
KS1	*Ursa*	*sp*	Scat
KS1	*Alces*	*alces*	Trail
KS2	*Alces*	*alces*	Bed
KS2	*Alces*	*alces*	Hair
KS11	*Alces*	*alces*	Individual
KS12	*Ursa*	*sp*	Scat
KS12	*Alces*	*alces*	Trail
KS13	*Alces*	*alces*	Trail
KS16	*Ursa*	*sp*	Scat
KS16	Grouse		Individual
KS18	*Alces*	*alces*	Trail
KS19	Ducks		Individual
KS19	*Alces*	*alces*	Trail and Browse
KS20	Frog		Individual
KS23	*Rana*	*sp*	Individual and Egg mass
KS27	*Castor*	*canadensis*	Dam/lodge
KS29	*Alces*	*alces*	Trail
KS29	*Castor*	*canadensis*	lodge
KS35	*Castor*	*canadensis*	lodge
KS90	*Rana*	*sp*	Individual

Plate 4.4-2. Columbia spotted frog Observed at Wetland Site KS20.

5. Conclusion

A total of 111 wetland ecosystem surveys were completed in the KSM study area in September 2008 and July 2009; 94 wetland communities were mapped, classified, and entered into a wetland GIS. A further 442 TRIM wetlands were also incorporated into the wetland GIS. Wetlands were classified to federal wetland class and provincial site association following Warner and Rubec (1997) and Mackenzie and Moran (2004). Wetland classification identified 21 wetland associations including an unclassified fen, TRIM marsh, TRIM swamp, and TRIM open water.

Most wetland communities were identified in the Shallow Open Water class because this class included TRIM open water features smaller than 2 ha in area. It is possible that some of these features are not wetlands. However, they would provide some functions similar to open water wetlands. The Swamp wetland class covered the largest area because the study area contains a number of TRIM Swamps. These tended to be large features; the largest being approximately 75 ha. Wetlands accounted for approximately 554 ha, approximately 1% of the study area and were observed in six BEC zones.

Wetlands in the study area were identified to generally have one of two hydrology functions 1) storage and 2) flood regulation. Small open water wetlands, particularly in the alpine and subalpine BEC zones, sore water. They hold water in shallow pools making it available to adjacent ecosystems and wildlife during the drier summer months. TRIM swamp wetlands accounted for 38% of all wetlands by area. Swamp wetlands, particularly riparian flat swamps and inlands swamps, have an important flood prevention function.

The wetland ecological function is a wetlands relationship with other ecosystems in an area and was identified principally as rare or unique wetlands and wetland complexes within the study area. A total of 10 red and blue-listed wetland associations in the BAFA unp, CMA unp, CWH wm, ESSF vc, ICH vc, and MH un of the Skeena Stikine Forest District are identified as potentially occurring in the area by the BC CDC; however, none were observed during field studies. Wetland complexes accounted for 42 of the 94 wetland sites surveyed and 11% of the total wetland area. The largest wetlands are TRIM swamps, such as the complex observed in the TMF, they represent a number of communities including non-wetland riparian forest, flood associations, and swamps.

Wetlands in the study area were identified to support a variety of biochemical functions because a variety of wetland classes and associations were observed. Swamp wetlands accounted for the majority of wetlands by area. Swamps primary biochemical function is improving water quality because they support a combination of physical processes, high interaction between water and the rhizosphere, soil matrix, and a multitude of micro-sites which result in a heterogeneity of oxidation (Environment Canada 2008).

Wetlands in the study area maintain local and regional biodiversity by providing a wide range of aquatic and terrestrial habitat. Wildlife observations included a number of mammalian, avian, and herptofauna, although approximately 50% of all wildlife observations were moose (*Alces alces*). No COSEWIC/SARA listed species were directly observed during wetland field studies.

Within the study area wetlands cover a small component of the landscape. They are the connection between wetter aquatic habitats and drier upland habitats. They carry out a number of processes specific to wetlands such as regulating flood waters, improving water quality, and offering semi-aquatic wildlife habitat. The information collected in this baseline study informs aspects of the environmental assessment such that effects to wetlands as a result of the Project would be avoided or mitigated.

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Appendix 1

Wetland Ecosystem Field Data

Appendix 1. Wetland Ecosystem Field Data

ID	Plot	Date	Location	Easting	Northing	Elevation	Photo Numbers	Slope (%)	Aspect °	Meso Slope Position	Drainage Mineral Soils	Organic Soil Moisture	Mineral Soil Texture	Organic Soil Texture	Surface Organic Thickness	pH	Conductivity (ms)	Hydrodynamic Index	Soil Moisture Regime	Soil Nutrient Regime	Von Post	Polygon Area (m^2)	Wetland Class_1	Assn_ Code_1	Decile Percent 1	Association Name	Assn_ Area_1	Wetland Class_2	Assn_ Code_2	Decile Percent 2	Assn_ Area_2	Wetland Class3	Assn_ Code_3	Decile Percent 3	Assn_ Area_3	Notes	Source	ZONE	SUBZONE	BGC_LABEL
1	KS1	2-Sep-08	PTMF	444434	6275747	886	2259-2266	-	52	Mid Slope	-	Aquic	-	Fibric	>90	5.2	-	Sl	VW	B	2	4644.04	Fen	Wf03	100	Water sedge - Peat-moss	4644	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
2	KS2	2-Sep-08	PTMF	444281	6275911	922	2270-2276	-	50	Mid Slope	-	Aquic	-	Fibric	>100	4.6	-	Sl	VW	B	2	4676.47	Fen	Wf03	60	Water sedge - Peat-moss	2806	Fen	Wf04	40	1871	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
3	KS3	2-Sep-08	PTMF	443958	6276002	904	2277-2284	0	-1	Depression	Imperfectly	-	Loamy	-	0	5.5	-	Sl	W	D	-	32744.15	Swamp	Ws06	100.0	Sitka Willow - Sitka sedge	32744	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
4	KS4	2-Sep-08	PTMF	443794	6276017	905	2285-2294	-	192	Depression	Poorly	-	Loamy	-	0	5.9	-	Sl	VW	C	-	18655.82	Swamp	Willow - Sedge	100.0	Willow - Sedge	18656	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
5	KS5	2-Sep-08	PTMF	443264	6276145	893	2295-2306	0	-	Depression	Poorly	Subaquic	Sandy	Fibric	35	-	-	Sl	W	D	2	31311.54	Swamp	Ws06	100	Sitka Willow - Sitka sedge	31312	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
6	KS6	2-Sep-08	PTMF	442792	6276573	887	2308-2314	-	190	Lower Slope	-	Subaquic	-	Humic	>100	-	-	Sl	W	B	8	9867.90	Fen	Wf03	90	Water sedge - Peat-moss	8881	Fen	Wf04	10	987	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
7	KS7	3-Sep-08	PTMF	442626	6276630	884	2316-2320	0	-1	Depression	Very Poorly	Aquic	Clayey	Fibric	60	6.2	-	Sl	VW	C	1	3213.07	Swamp	Ws06	100.0	Sitka Willow - Sitka sedge	3213	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
8	KS8	3-Sep-08	PTMF	442506	6276782	880	2321-2331	0	-1	Depression	Poorly	-	Loamy	-	0	5.5	-	Mo	W	D	-	331.14	Swamp	Willow - Sedge	100	Willow - Sedge	331	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
9	KS9	3-Sep-08	PTMF	442223	6277005	880	2332-2333	0	-1	Level	Poorly	Aquic	Clayey	Fibric	73	5.5	-	Sl	VW	C	1	98747.23	Swamp	Ws06	70	Sitka Willow - Sitka sedge	69123	Fen	Wf04	30.0	29624	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
10	KS10	3-Sep-08	PTMF	442111	6277104	879	2334-2345	0	-1	Level	-	Aquic	-	Fibric	103	5.5	-	St	W	C	1	10654.17	Fen	Wf04	60.0	Barclay's willow - Water sedge - Glow moss	6393	Swamp	Ws06	40.0	4262	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
11	KS10b	3-Sep-08	PTMF	441993	6277270	879	2334-2345	0	-1	Level	-	-	-	-	-	5.5	-	St	W	C	1	1522.51	Marsh	Wm01	80.0	Beaked sedge - Water sedge	1218	SOW	SOW	20.0	305	-	-	-	-	Marsh and OW associated with KS10	Delineated	ESSF	wv	ESSFwv
12	KS11	3-Sep-08	PTMF	441698	6277815	881	2346-2360	-	60	Level	Well	Aquic	Sandy	Humic	90	5.5	-	Sl	VW	C	7	84175.46	Fen	Wf03	60.0	Water sedge - Peat-moss	50505	Fen	Wf04	40.0	33670	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
13	KS12	3-Sep-08	Plant Site 1	438588	6279589	1125	2361-2369	-	22	Mid Slope	-	Subaquic	-	Mesic	>75	-	-	Sl	W	B	7	16459.75	Fen	Wf03	100	Water sedge - Peat-moss	16460	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
14	KS13	3-Sep-08	Plant Site 1	438820	6279725	1101	2370-2382	0	-1	Mid Slope	-	Subaquic	-	Mesic	>75	5.1	-	Sl	VM	B	6	12827.88	Fen	Wf03	80	Water sedge - Peat-moss	10262	Fen	Wf12	20	2566	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
15	KS14	3-Sep-08	Plant Site 1	439059	6279707	1083	2383-2392	0	-1	Mid Slope	-	Subaquic	-	Humic	>65	5.7	-	St	VM	B	8	1615.47	Fen	Wf12	80	Narrow-leaved cotton-grass - Marsh-marigold	1292	SOW	YPL	20.0	323	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
16	KS15	4-Sep-08	ATMF	430402	6278870	1049	2393-2402	-	348	Mid Slope	-	Subaquic	-	Mesic	103	5.6	-	Sl	VM	B	4	8133.68	fen	Wf04	80	Barclay's willow - Water sedge - Glow moss	6507	Fen	Wf03	20	1627	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
17	KS16	4-Sep-08	ATMF	430640	6278945	1019	2403-2408	-	16	Mid Slope	Very Poorly	Subaquic	Loamy	Mesic	80	5.4	-	Sl	W	B	6	1988.96	fen	Wf03	80	Water sedge - Peat-moss	1591	Fen	Wf04	20	398	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
18	KS17	4-Sep-08	ATMF	430806	6278923	1016	2409-2421	0	-1	Mid Slope	-	Subaquic	-	Mesic	>65	5.2	-	Sl	VM	B	6	8677.27	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	8677	-	-	-	-	-	-	-	-	-	Modified TRIM	ESSF	wv	ESSFwv
19	KS18	4-Sep-08	ATMF	431879	6279135	982	2422-2433	0	-1	Lower Slope	Poorly	Subaquic	Loamy	Mesic	93	5.1	-	Sl	W	B	5	4932.19	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	4932	-	-	-	-	-	-	-	-	-	Modified TRIM	ESSF	wv	ESSFwv
20	KS19	4-Sep-08	ATMF	431753	6279458	912	2434-2447	0	-1	Toe	Very Poorly	Peraquic	Loamy	Humic	36	7.1	-	Sl	W	D	9	16373.58	Marsh	Wm01	100	Beaked sedge - Water sedge	16374	-	-	-	-	-	-	-	-	-	Modified TRIM	ESSF	wv	ESSFwv
21	KS20	4-Sep-08	Plant Site 2a	431932	6278229	1114	2448-2462	0	-1	Mid Slope	-	Peraquic	-	Humic	113	5.5	-	St	VM	C	7	32490.00	Fen	Wf03	100	Water sedge - Peat-moss	32490	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
22	KS21	7-Jul-09	-	407612	6271770	864	photos labeled	5	170	Mid Slope	Very Poorly	Subaquic	Silty	Mesic	58	6.2	140.0	Sl	W	C	3	9375.56	Fen	Wf12	90	Narrow-leaved cotton-grass - Marsh-marigold	8438	Fen	Wf04	10	938	-	-	-	-	-	Delineated	MH	un	MH un
23	KS22	7-Jul-09	-	407493	6271651	863	photos labeled	0	-1	Depression	-	Aqueous	-	-	-	6.7	10.0	D	VW	-	-	12389.83	SOW	Open Water	100	Open Water	12390	-	-	-	-	-	-	-	-	Not Vegetated	TRIM	MH	un	MH un
24	KS23	7-Jul-09	-	407540	6271253	787	photos labeled	8	270	Mid Slope	Imperfectly	Aquic	Loamy	Mesic	82	6.8	40.0	Sl	W	C	6	3451.42	Fen	Wf12	80	Narrow-leaved cotton-grass - Marsh-marigold	2761	SOW	SOW	20	690	-	-	-	-	-	Delineated	MH	un	MH un
25	KS24	7-Jul-09	-	407455	6271255	884	photos labeled	8	160	Mid Slope	Poorly	Aquic	Silty	Mesic	57	6.4	50.0	Sl	W	C	5	3546.24	Fen	Wf50	100	Narrow-leaved cotton-grass - Peat-moss	3546	-	-	-	-	-	-	-	-	-	Delineated	MH	un	MH un
26	KS25	7-Jul-09	-	407405	6271357	841	photos labeled	2	30	Mid Slope	-	Aquic	-	Mesic	45	6.4	30.0	Sl	W	C	4	4572.53	Fen	Wf50	90	Narrow-leaved cotton-grass - Peat-moss	4115	SOW	SOW	10	457	-	-	-	-	-	Delineated	MH	un	MH un
27	KS26	7-Jul-09	-	407704	6269701	602	photos labeled	0	-1	Lower Slope	-	Aquic	-	Mesic	48	6.0	50.0	Mo	W	C	4	2238.61	Swamp	Ws54	90	Western redcedar - Western hemlock - Skunk cabbage	2015	SOW	SOW	10	224	-	-	-	-	-	Delineated	CWH	wm	CWH wm
28	KS27	7-Jul-09	-	407720	6269744	608	photos labeled	0	-1	Lower Slope	-	Aquic	-	Mesic	48	6.0	110.0	Mo	W	C	4	1014.53	Swamp	Ws09	100	Black spruce - Skunk cabbage - Peat-moss	1015	-	-	-	-	-	-	-	-	-	Delineated	CWH	wm	CWH wm
30	KS28	7-Jul-09	-	407837	6269346	589	photos labeled	0	-1	Lower Slope	-	Peraquic	-	Mesic	49	5.8	40.0	Mo	VW	C	5	1029.87	Swamp	Ws09	100	Black spruce - Skunk cabbage - Peat-moss	1030	-	-	-	-	-	-	-	-	-	Delineated	CWH	wm	CWH wm
32	KS29	8-Jul-09	-	407597	6266159	248	photos labeled	0	-1	Level	-	Aqueous	-	Mesic	50	6.1	120.0	Mo	VW	C	5	14884.23	Marsh	Wm01	100	Beaked sedge - Water sedge	14884	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
33	KS30	8-Jul-09	-	407412	6265120	305	photos labeled	2	5	Lower Slope	-	Aqueous	-	Mesic	50	6.4	100.0	Mo	VW	D	5	10645.02	Swamp	Ws09	100	Black spruce - Skunk cabbage - Peat-moss	10645	-	-	-	-	-	-	-	-	-	Delineated	CWH	wm	CWH wm
35	KS31	8-Jul-09	-	407614	6264476	343	photos labeled	0	-1	Depression	-	Aqueous	-	Mesic	50	6.5	50.0	Mo	VW	D	5	894.28	Swamp	Ws09	100	Black spruce - Skunk cabbage - Peat-moss	894	-	-	-	-	-	-	-	-	-	Delineated	CWH	wm	CWH wm
36	KS32	8-Jul-09	-	407698	6264330	335	photos labeled	0	0	Depression	-	Aqueous	-	Fibric	50	6.6	80.0	Mo	VW	D	3	1532.72	Swamp	Ws09	90	Black spruce - Skunk cabbage - Peat-moss	1379	SOW	SOW	10	153	-	-	-	-	-	Delineated	CWH	wm	CWH wm
37	KS33	8-Jul-09	-	407728	6264183	336	photos labeled	0	-1	Depression	-	Aqueous	-	Fibric	50	6.5	90.0	Mo	VW	C	3	2081.19	Swamp	Ws09	95	Black spruce - Skunk cabbage - Peat-moss	1977	SOW	SOW	5	104	-	-	-	-	-	Delineated	CWH	wm	CWH wm
39	KS34	9-Jul-09	-	407775	6262648	232	photos labeled	0	-1	Level	Well	Subaquic	Loamy	Fibric	50	5.7	30.0	Sl	VM	B	2	46885.72	Marsh	Wm02	100	Swamp horsetail - Beaked sedge	46886	-	-	-	-	-	-	-	-	-	Delineated	CWH	wm	CWH wm
40	KS35	9-Jul-09	-	407869	6260964	215	photos labeled	0	-1	Level	Imperfectly	Peraquic	Loamy	Fibric	20	6.1	120.0	Mo	VM	C	3	161767.25	Marsh	Wm02	100	Swamp horsetail - Beaked sedge	161767	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
42	KS36	10-Jul-09	-	444498	6275872	883	photos labeled	2	135	Toe	Imperfectly	Peraquic	Loamy	Fibric	30	6.2	130.0	Sl	W	C	3	22048.05	Fen	Wf04	100	Barclay's willow - Water sedge - Glow moss	22048	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
43	KS37	10-Jul-09	-	444729	6275702	876	photos labeled	0	-1	Toe	Poorly	Peraquic	Silty	Mesic	24	6.3	180.0	Mo	W	C	4	65740.29	Fen	Wf04	100	Barclay's willow - Water sedge - Glow moss	65740	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
44	KS38	10-Jul-09	-	444592	6275539	881	photos labeled	10	55	Toe	-	Aquic	-	Fibric	85	5.2	20.0	Sl	VW	B	2	7826.11	Fen	Wf50	100	Narrow-leaved cotton-grass - Peat-moss	7826	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
45	KS39	10-Jul-09	-	445715	6274961	847	photos labeled	0	-1	Level	Mod. Well	Peraquic	Loamy	Mesic	20	6.0	80.0	Mo	W	C	5	8675.14	Fen	Wf04	95	Barclay's willow - Water sedge - Glow moss	8241	SOW	SOW	5	434	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
46	KS40	10-Jul-09	-	444913	6275420	869	photos labeled	5	40	Toe	-	Aquic	-	Fibric	>100	5.3	60.0	Sl	VW	B	3	2453.24	Fen	Wf50	80	Narrow-leaved cotton-grass - Peat-moss	1963	Fen	Wf04	20	491	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
47	KS41	10-Jul-09	-	445037	6275672	890	photos labeled	0	-1	Level	-	-	-	Mesic	60	6.0	70.0	Mo	VW	C	6	26894.40	Fen	Wf04	70	Barclay's willow - Water sedge - Glow moss	18826	SOW	SOW	30	8068	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
49	KS42	11-Jul-09	-	445008	6275756	868	photos labeled	0	-1	-	Well	Aqueous	Clayey	Humic	85	6.1	90.0	Dy	VW	D	8	3601.64	Fen	Wf04	90	Barclay's willow - Water sedge - Glow moss	3241	SOW	SOW	10	360	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
50	KS43	11-Jul-09	-	440551	6277688	1109	photos labeled	20	40	Mid Slope	-	Peraquic	-	Fibric	75	4.9	30.0	Sl	VW	A	2	3264.51	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	3265	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
51	KS44	11-Jul-09	-	440445	6277544	1139	photos labeled	25	15	Mid Slope	-	Peraquic	-	Fibric	90	5.0	10.0	Sl	VW	B	3	3509.81	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	3510	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
52	KS45	11-Jul-09	-	440441	6277930	1149	photos labeled	15	70	Mid Slope	-	Peraquic	-	Fibric	80	5.2	20.0	Sl	VW	B	3	1250.51	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	1251	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
53	KS46	11-Jul-09	-	440460	6277999	1072	photos labeled	10	120	Mid Slope	-	Peraquic	-	Fibric	80	5.5	40.0	Sl	VW	B	3	6362.07	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	6362	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
55	KS47	11-Jul-09	-	440270	6278194	1089	photos labeled	8	90	Mid Slope	-	Subaquic	-	Fibric	80	5.3	40.0	Sl	W	B	3	13580.26	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	13580	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
58	KS48	11-Jul-09	-	440497	6278223	1058	photos labeled	8	55	Mid Slope	-	Subaquic	-	Fibric	100	5.4	40.0	Sl	W	B	2	3928.01	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	3928	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
59	KS49	11-Jul-09	-	440627	6278175	1035	photos labeled	5	130	Mid Slope	-	Peraquic	-	Fibric	100	5.5	40.0	Sl	VW	B	3	2079.97	Fen	Wf03	100	Water sedge - Peat-moss	2080	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
60	KS50	11-Jul-09	-	440551	6278227	1042	photos labeled	10	70	Mid Slope	-	Subaquic	-	Fibric	100	5.3	50.0	Sl	W	B	3	1425.27	Fen	Wf03	90	Water sedge - Peat-moss	1283	Fen	Wf04	10	143	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
61	KS51	11-Jul-09	-	440485	6278337	1049	photos labeled	11	40	Mid Slope	-	Subaquic	-	Fibric	80	5.2	40.0	Sl	W	B	3	2080.53	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	2081	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
62	KS52	11-Jul-09	-	440360	6278461	1026	photos labeled	9	70	Mid Slope	-	Aquic	-	Fibric	110	5.2	30.0	Sl	W	B	2	3958.76	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	3959	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
63	KS53	12-Jul-09	-	442454	6276024	973	photos labeled	8	50	Toe	-	Aqueous	-	Mesic	100	5.5	20.0	Mo	VW	C	2	10291.25	Fen	Wf12	60	Narrow-leaved cotton-grass - Marsh-marigold	6175	Fen	Wf04	40	4117	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
64	KS54	12-Jul-09	-	441349	6277585	953	photos labeled	8	50	Lower Slope	-	Aquic	-	Mesic	80	5.1	40.0	Sl	W	C	4	3231.31	Fen	Wf03	70	Water sedge - Peat-moss	2262	Fen	Wf04	30	969	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
65	KS55	12-Jul-09	-	441240	6277684	945	photos labeled	12	50	Lower Slope	-	Aquic	-	Fibric	100	5.2	20.0	Sl	W	B	3	3396.80	Fen	Wf03	100	Water sedge - Peat-moss	3397	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
67	KS57	12-Jul-09	-	441418	6277761	936	photos labeled	6	40	Lower Slope	-	Peraquic	-	Fibric	50	5.1	20.0	St	W	A	2	1076.14	Fen	Wf03	100	Water sedge - Peat-moss	1076	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
68	KS58	12-Jul-09	-	441309	6278102	908	photos labeled	6	75	Lower Slope	-	Aquic	-	Mesic	75	5.2	40.0	Sl	W	C	4	2815.63	Fen	Wf03	80	Water sedge - Peat-moss	2253	Fen	Wf04	20	563	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
69	KS59	12-Jul-09	-	441487	6278292	892	photos labeled	0	-1	Level	Well	Peraquic	Sandy	Mesic	45	5.3	50.0	-	-	-	4	2601.15	Fen	Wf04	100	Barclay's willow - Water sedge - Glow moss	2601	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
70	KS60	12-Jul-09	-	441358	6278422	872	photos labeled	4	20	Toe	-	Subaquic	-	Mesic	80	6.1	30.0	Sl	W	C	5	3559.19	Fen	Wf03	60	Water sedge - Peat-moss	2136	Fen	Wf04	40	1424	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
71	KS61	12-Jul-09	-	440429	6278873	1035	photos labeled	8	130	Mid Slope	-	Peraquic	-	Mesic	110	5.5	50.0	Sl	W	C	4	5107.91	Fen	Wf13	70	Narrow-leaved cotton-grass - Shore sedge	3576	Fen	Wf04	30	1532	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
72	KS62	12-Jul-09	-	440077	6279241	1070	photos labeled	6	130	Crest	-	Subaquic	-	Mesic	100	5.8	10.0	Sl	W	C	4	779.39	Fen	Wf50	100	Narrow-leaved cotton-grass - Peat-moss	779	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
73	KS63	12-Jul-09	-	439987	6279424	1068	photos labeled	5	120	Crest	-	Subaquic	-	Mesic	100	5.2	20.0	Sl	W	C	4	83476.02	Fen	Wf13	90	Narrow-leaved cotton-grass - Shore sedge	75128	Fen	Wf04	10	8348	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
74	KS64	13-Jul-09	-	439846	6279740	1077	photos labeled	0	-1	Level	-	Peraquic	-	Mesic	110	5.3	30.0	Sl	VW	C	5	7588.90	Fen	Wf03	60	Water sedge - Peat-moss	4553	Fen	Wf03	30	2277	SOW	YPL	10	759	-	Delineated	ESSF	wv	ESSFwv
75	KS65	13-Jul-09	-	439808	6279422	1077	photos labeled	5	355	Level	-	Aquic	-	Mesic	75	5.3	30.0	Sl	W	C	5	23021.92	Fen	Wf13	100	Narrow-leaved cotton-grass - Shore sedge	23022	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
76	KS66	13-Jul-09	-	439755	6279369	1079	photos labeled	0	-1	Level	-	Aquic	-	Mesic	100	5.2	40.0	Sl	VM	C	5	7687.29	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	7687	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
77	KS67	13-Jul-09	-	439705	6279258	1045	photos labeled	5	150	Toe	Imperfectly	Aquic	Loamy	Mesic	56	5.1	30.0	Mo	VM	C	4	18603.61	Fen	Wf50	100	Narrow-leaved cotton-grass - Peat-moss	18604	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
78	KS68	13-Jul-09	-	439652	6279370	1074	photos labeled	0	-1	Level	Imperfectly	Aquic	Loamy	Mesic	55	5.0	10.0	Mo	VM	C	5	10942.22	Fen	Wf50	60	Narrow-leaved cotton-grass - Peat-moss	6565	Fen	Wf03	40	4377	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
79	KS69	13-Jul-09	-	439618	6278980	1081	photos labeled	5	115	Toe	-	Subaquic	-	Mesic	100	5.3	10.0	Sl	VW	C	4	6608.84	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	6609	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
80	KS70	13-Jul-09	-	439663	6278733	1106	photos labeled	12	85	Mid Slope	-	Subaquic	-	Mesic	100	5.1	30.0	Sl	WM	C	6	8101.90	Fen	Wf50	100	Narrow-leaved cotton-grass - Peat-moss	8102	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
82	KS71	13-Jul-09	-	439972	6278550	1094	photos labeled	0	-1	Mid Slope	-	Aquic	-	Mesic	100	5.2	10.0	Sl	VM	C	4	5285.26	Fen	Wf03	90	Water sedge - Peat-moss	4757	SOW	SOW	10	529	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
83	KS72	13-Jul-09	-	440004	6278689	1072	photos labeled	13	75	Mid Slope	-	Subaquic	-	Mesic	100	5.4	40.0	Sl	W	C	5	4623.04	Fen	Wf12	90	Narrow-leaved cotton-grass - Marsh-marigold	4161	Fen	Wf04	10	462	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
84	KS73	13-Jul-09	-	439310	6279385	1096	photos labeled	4	65	Mid Slope	-	Aquic	-	Mesic	100	4.9	-	Sl	W	B	5	14840.38	Fen	Wf50	90	Narrow-leaved cotton-grass - Peat-moss	13356	SOW	SOW	10	1484	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
86	KS74	13-Jul-09	-	439267	6279550	1088	photos labeled	0	-1	Lower Slope	-	Aquic	-	Mesic	100	5.0	30.0	-	-	B	5	2724.46	Fen	Wf13	100	Narrow-leaved cotton-grass - Shore sedge	2724	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
87	KS75	13-Jul-09	-	439445	6279666	1054	photos labeled	0	-1	Level	-	Aquic	-	Mesic	100	4.9	20.0	Sl	W	B	6	71435.65	Fen	Wf03	80	Water sedge - Peat-moss	57149	SOW	SOW	20	14287	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
89	KS76	13-Jul-09	-	439540	6279699	1073	photos labeled	0	-1	Level	-	Aqueous	-	-	-	-	-	-	VW	-	-	11449.90	SOW	Open Water	100	Open Water	11450	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
90	KS77	14-Jul-09	-	440147	6280998	906	photos labeled	10	130	Depression	-	Peraquic	-	Mesic	100	5.4	60.0	Sl	VW	C	4	1540.01	Fen	WF13	80	Narrow-leaved cotton-grass - Shore sedge	1232	Fen	Wf04	20	308	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
92	KS78	14-Jul-09	-	439938	6281043	912	photos labeled	0	-1	Level	Very Poorly	Peraquic	Clayey	Mesic	40	4.9	10.0	St	VM	B	6	4841.06	Fen	Wf50	100	Narrow-leaved cotton-grass - Peat-moss	4841	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
93	KS79	14-Jul-09	-	439802	6281165	926	photos labeled	0	-1	Level	Very Poorly	Peraquic	Clayey	Mesic	55	5.6	20.0	St	W	B	5	5938.88	Fen	Wf03	80	Water sedge - Peat-moss	4751	Fen	Wf04	20	1188	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
94	KS80	14-Jul-09	-	439723	6281332	894	photos labeled	7	340	Depression	Well	Peraquic	Loamy	Humic	55	5.7	30.0	Mo	W	D	10	5796.73	Swamp	Ws08	100	Subalpine fir - Sitka valerian - Common horsetail	5797	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
96	KS81	14-Jul-09	-	439524	6281445	909	photos labeled	7	20	Depression	-	Aquic	-	Mesic	100	5.0	30.0	Mo	W	B	4	2360.90	Fen	Wf04	100	Barclay's willow - Water sedge - Glow moss	2361	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
97	KS82	14-Jul-09	-	439412	6281523	904	photos labeled	5	340	Depression	-	Aquic	-	Mesic	90	5.5	50.0	Sl	VM	C	4	5343.16	Fen	Wf03	100	Water sedge - Peat-moss	5343	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
98	KS83	14-Jul-09	-	439092	6281349	952	photos labeled	8	320	Mid Slope	-	Subaquic	-	Mesic	100	5.2	30.0	Sl	VM	C	4	4219.40	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	4219	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
99	KS84	14-Jul-09	-	439002	6281272	954	photos labeled	15	330	Mid Slope	-	Aquic	-	Mesic	100	5.7	50.0	Sl	W	C	4	8068.00	Fen	Wf12	80	Narrow-leaved cotton-grass - Marsh-marigold	6454	SOW	YPL	10	807	Fen	Wf04	10	807	-	Delineated	ESSF	wv	ESSFwv
101	KS85	14-Jul-09	-	439212	6280975	1036	photos labeled	15	345	Upper Slope	-	Aquic	-	Mesic	100	5.6	50.0	Sl	W	C	6	1040.70	Fen	Wf12	100	Narrow-leaved cotton-grass - Marsh-marigold	1041	-	-	-	-	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
102	KS86	14-Jul-09	-	439146	6280870	1028	photos labeled	12	330	Mid Slope	-	Subaquic	-	Mesic	100	6.1	60.0	Sl	W	C	4	2193.97	Fen	Wf12	70	Narrow-leaved cotton-grass - Marsh-marigold	1536	Fen	Wf04	30	658	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
103	KS87	14-Jul-09	-	439045	6280753	1019	photos labeled	4	335	Mid Slope	-	Subaquic	-	Humic	100	5.4	40.0	Sl	W	C	7	1452.07	Fen	Wf12	80	Narrow-leaved cotton-grass - Marsh-marigold	1162	Fen	Wf04	20	290	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
104	KS88	14-Jul-09	-	439188	6280462	1043	photos labeled	7	355	Upper Slope	-	Aquic	-	Mesic	100	5.3	50.0	Sl	W	C	4	13277.09	Fen	Wf50	70	Narrow-leaved cotton-grass - Peat-moss	9294	SOW	SOW	30	3983	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
105	KS89-AIR	15-Jul-09	-	418836	6262540	956	photos labeled	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2297.68	Fen	Unclassified	100	Unclassified	2298	-	-	-	-	-	-	-	-	Aerial Survey	Delineated	MH	un	MH un
106	KS90	15-Jul-09	-	419659	6262081	871	photos labeled	5	175	Lower Slope	-	Peraquic	-	Mesic	100	5.9	80.0	Mo	VW	B	3	17295.55	Fen	Wf08	50	Shore sedge - Buckbean - Hook-moss	8648	Fen	Wf03	30	5189	Fen	Wf04	20	3459	-	TRIM	MH	un	MH un
108	KS91	15-Jul-09	-	442469	6287643	572	photos labeled	0	-1	Level	Mod. Well	Subaquic	Loamy	Mesic	10	5.9	60.0	Mo	W	C	5	11403.83	Marsh	Wm01	70	Beaked sedge - Water sedge	7983	Swamp	Ws06	30	3421	-	-	-	-	-	Delineated	ESSF	wv	ESSFwv
109	KS92	15-Jul-09	-	443351	6289244	564	photos labeled	0	-1	Level	Very Poorly	Aqueous	Clayey	Fibric	5	6.5	160.0	Mo	VW	A	1	13107.96	Swamp	Ws06	100	Sitka Willow - Sitka sedge	13108	-	-	-	-	-	-	-	-	-	Delineated	ICH	vc	ICH vc
110	KS93	15-Jul-09	-	443416	6289304	571	photos labeled	0	-1	Level	Well	-	Loamy	-	-	-	-	Mo	VW	-	-	161531.09	Swamp	Ws02	100	Mountain alder - Pink spirea - Sitka sedge	161531	-	-	-	-	-	-	-	-	-	Delineated	ICH	vc	ICH vc
111	KS94	15-Jul-09	-	436115	6283439	876	photos labeled	0	-1	Level	-	Aqueous	-	Mesic	100	5.5	30.0	Sl	VW	C	4	28796.36	Fen	Wf01	60	Water sedge - Beaked sedge	17278	Fen	Wf04	30	8639	SOW	SOW	10	2880	-	Delineated	ESSF	wv	ESSFwv
112	TRIM1	26-Jan-10	-	408778	6273712	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4769.75	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4770	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
113	TRIM2	26-Jan-10	-	410570	6275096	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1091.82	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1092	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
114	TRIM3	26-Jan-10	-	406298	6278312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1461.75	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1462	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp

Appendix 1. Wetland Ecosystem Field Data

ID	Plot	Date	Location	Easting	Northing	Elevation	Photo Numbers	Slope (%)	Aspect°	Meso Slope Position	Drainage Mineral Soils	Organic Soil Moisture	Mineral Soil Texture	Organic Soil Texture	Surface Organic Thickness	pH	Conductivity (ms)	Hydrodynamic Index	Soil Moisture Regime	Soil Nutrient Regime	Von Post	Polygon Area (m^2)	Wetland Class_1	Assn_ Code_1	Decile Percent 1	Association Name	Assn_ Area_1	Wetland Class_2	Assn_ Code_2	Decile Percent 2	Assn_ Area_2	Wetland Class3	Assn_ Code_3	Decile Percent 3	Assn_ Area_3	Notes	Source	ZONE	SUBZONE	BGC_LABEL
115	TRIM4	26-Jan-10	-	405580	6278362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	880.36	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	880	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
116	TRIM5	26-Jan-10	-	410893	6278846	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	998.97	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	999	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
117	TRIM6	26-Jan-10	-	422041	6258957	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	599.95	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	600	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
118	TRIM7	26-Jan-10	-	426186	6259908	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	663.15	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	663	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
119	TRIM8	26-Jan-10	-	425845	6260290	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	723.32	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	723	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
120	TRIM9	26-Jan-10	-	425770	6260318	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	607.31	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	607	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
121	TRIM10	26-Jan-10	-	425725	6260972	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1136.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1137	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
122	TRIM11	26-Jan-10	-	405679	6262029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3532.58	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3533	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
123	TRIM12	26-Jan-10	-	409504	6259831	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1076.69	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1077	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
124	TRIM13	26-Jan-10	-	437567	6280400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2337.21	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	2337	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
125	TRIM14	26-Jan-10	-	436444	6280801	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2121.83	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	2122	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
126	TRIM15	26-Jan-10	-	409984	6271431	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3957.17	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	3957	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
127	TRIM16	26-Jan-10	-	410486	6271445	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3933.92	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	3934	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
128	TRIM17	26-Jan-10	-	408544	6272446	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9597.12	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	9597	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
129	TRIM18	26-Jan-10	-	408226	6272517	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9387.43	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	9387	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
130	TRIM19	26-Jan-10	-	407430	6272583	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6216.05	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	6216	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
131	TRIM20	26-Jan-10	-	407336	6272804	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3494.14	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	3494	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
132	TRIM21	26-Jan-10	-	407105	6273275	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	732.35	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	732	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
133	TRIM22	26-Jan-10	-	407373	6273105	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	86076.57	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	86077	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
134	TRIM23	26-Jan-10	-	406527	6273520	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	874.55	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	875	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
135	TRIM24	26-Jan-10	-	406571	6273691	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	442.49	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	442	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
136	TRIM25	26-Jan-10	-	407336	6273787	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9521.59	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	9522	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
137	TRIM26	26-Jan-10	-	410197	6273807	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7084.76	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	7085	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
138	TRIM27	26-Jan-10	-	409641	6274112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6267.22	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	6267	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
139	TRIM28	26-Jan-10	-	405555	6274401	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6333.70	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	6334	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
140	TRIM29	26-Jan-10	-	407731	6274467	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11052.99	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	11053	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
141	TRIM30	26-Jan-10	-	404806	6274817	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7452.79	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	7453	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
142	TRIM31	26-Jan-10	-	409813	6275027	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3308.77	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	3309	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
143	TRIM32	26-Jan-10	-	405145	6275234	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11437.20	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	11437	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
144	TRIM33	26-Jan-10	-	406162	6277522	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7792.50	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	7792	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
145	TRIM34	26-Jan-10	-	407029	6278166	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3820.55	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	3821	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
146	TRIM35	26-Jan-10	-	411205	6277973	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22376.14	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	22376	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
147	TRIM36	26-Jan-10	-	407182	6278805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3757.85	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	3758	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
148	TRIM37	26-Jan-10	-	411607	6278859	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4430.39	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	4430	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
149	TRIM38	26-Jan-10	-	409377	6279088	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59160.38	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	59160	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
150	TRIM39	26-Jan-10	-	407574	6280364	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8055.23	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	8055	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
151	TRIM40	26-Jan-10	-	410732	6270879	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11695.51	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	11696	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
152	TRIM41	26-Jan-10	-	405214	6267957	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1165.37	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	1165	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
153	TRIM42	26-Jan-10	-	405770	6268052	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	702.34	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	702	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
154	TRIM43	26-Jan-10	-	408835	6267974	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30901.14	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	30901	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
155	TRIM44	26-Jan-10	-	408454	6268346	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	87849.74	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	87850	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
156	TRIM45	26-Jan-10	-	408703	6268765	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11213.51	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	11214	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
157	TRIM46	26-Jan-10	-	409297	6268744	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	28449.99	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	28450	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
158	TRIM47	26-Jan-10	-	410108	6270054	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21253.78	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	21254	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
159	TRIM48	26-Jan-10	-	410734	6269994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	17686.52	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	17687	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
160	TRIM49	26-Jan-10	-	410290	6270128	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30552.15	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	30552	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
161	TRIM50	26-Jan-10	-	405484	6266029	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	810.26	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	810	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
162	TRIM51	26-Jan-10	-	404637	6267613	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2366.56	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	2367	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
163	TRIM52	26-Jan-10	-	405271	6265950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	741.71	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	742	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
164	TRIM53	26-Jan-10	-	405444	6265949	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	633.60	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	634	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
165	TRIM54	26-Jan-10	-	410034	6264605	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50198.57	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	50199	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
166	TRIM55	26-Jan-10	-	445435	6272006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	360064.90	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	360065	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
167	TRIM56	26-Jan-10	-	445010	6273958	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1880.46	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	1880	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
168	TRIM57	26-Jan-10	-	440352	6277842	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2281.11	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	2281	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
169	TRIM58	26-Jan-10	-	437865	6280710	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6251.02	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	6251	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
170	TRIM59	26-Jan-10	-	426586	6258822	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12365.96	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	12366	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
171	TRIM60	26-Jan-10	-	426134	6259045	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50520.32	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	50520	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
172	TRIM61	26-Jan-10	-	426029	6260469	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11297.91	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	11298	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
173	TRIM62	26-Jan-10	-	425329	6261052	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2795.11	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	2795	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
174	TRIM63	26-Jan-10	-	441127	6285121	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	193882.97	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	193883	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
175	TRIM64	26-Jan-10	-	441609	6286216	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	96016.50	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	96017	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
176	TRIM65	26-Jan-10	-	442393	6287770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1516.51	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	1517	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
177	TRIM66	26-Jan-10	-	443041	6288913	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1018.00	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	1018	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
178	TRIM67	26-Jan-10	-	444565	6288339	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	293857.51	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	293858	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
179	TRIM68	26-Jan-10	-	444693	6288276	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1423.00	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	1423	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
180	TRIM69	26-Jan-10	-	445378	6288495	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	57677.01	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	57677	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
181	TRIM70	26-Jan-10	-	445610	6288781	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55087.72	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	55088	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
182	TRIM71	26-Jan-10	-	444903	6288695	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	752890.32	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	752890	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
183	TRIM72	26-Jan-10	-	443321	6289846	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	42845.52	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	42846	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
184	TRIM73	26-Jan-10	-	443786	6289641	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	413588.02	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	413588	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
185	TRIM74	26-Jan-10	-	442611	6290617	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	24060.12	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	24060	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
186	TRIM75	26-Jan-10	-	436435	6282162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6837.23	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	6837	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
187	TRIM76	26-Jan-10	-	436678	6282278	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4522.19	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	4522	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
188	TRIM77	26-Jan-10	-	436293	6282787	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7969.75	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	7970	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
189	TRIM78	26-Jan-10	-	435631	6282924	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3928.69	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	3929	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
190	TRIM79	26-Jan-10	-	435228	6282823	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10415.38	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	10415	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
191	TRIM80	26-Jan-10	-	437175	6283654	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	20359.41	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	20359	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
192	TRIM81	26-Jan-10	-	407298	6262093	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4912.92	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	4913	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
193	TRIM82	26-Jan-10	-	405557	6262310	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3788.14	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	3788	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
194	TRIM83	26-Jan-10	-	407745	6262812	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16246.36	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	16246	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
195	TRIM84	26-Jan-10	-	407737	6262897	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6789.70	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	6790	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
196	TRIM85	26-Jan-10	-	406022	6263267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	810.65	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	811	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
197	TRIM86	26-Jan-10	-	407281	6263263	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1714.85	TRIM Marsh	TRIM Marsh	100	TRIM Marsh	1715	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
198	TRIM87	26-Jan-10	-	407541	6260539	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59178.46	TRIM Swamp	TRIM Swamp	100	TRIM Swamp	59178	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
199	TRIM88	27-Jan-10	-	408437	6277679	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18998.48	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	18998	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
200	TRIM89	27-Jan-10	-	409780	6275885	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18837.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	18838	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
201	TRIM90	27-Jan-10	-	413535	6269900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18543.17	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	18543	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
202	TRIM91	27-Jan-10	-	408274	6262975	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	18418.46	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	18418	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
203	TRIM92	27-Jan-10	-	426144	6260261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16713.68	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	16714	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
204	TRIM93	27-Jan-10	-	412777	6269902	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16606.52	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	16607	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
205	TRIM94	27-Jan-10	-	412901	6270153	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16470.75	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	16471	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
206	TRIM95	27-Jan-10	-	412911	6270586	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16238.25	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	16238	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
207	TRIM96	27-Jan-10	-	408571	6263278	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	15011.21	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	15011	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
208	TRIM97	27-Jan-10	-	407161	6278344	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14809.12	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	14809	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
209	TRIM98	27-Jan-10	-	405376	6276177	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14694.34	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	14694	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
210	TRIM99	27-Jan-10	-	444277	6289211	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14383.49	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	14383	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
211	TRIM100	27-Jan-10	-	405125	6265794	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14153.97	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	14154	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un

Appendix 1. Wetland Ecosystem Field Data

ID	Plot	Date	Location	Easting	Northing	Elevation	Photo Numbers	Slope (%)	Aspect °	Meso Slope Position	Drainage Mineral Soils	Organic Soil Moisture	Mineral Soil Texture	Organic Soil Texture	Surface Organic Thickness	pH	Conductivity (ms)	Hydrodynamic Index	Soil Moisture Regime	Soil Nutrient Regime	Von Post	Polygon Area (m^2)	Wetland Class_1	Assn_ Code_1	Decile Percent 1	Association Name	Assn_ Area_1	Wetland Class_2	Assn_ Code_2	Decile Percent 2	Assn_ Area_2	Wetland Class3	Assn_ Code_3	Decile Percent 3	Assn_ Area_3	Notes	Source	ZONE	SUBZONE	BGC_LABEL
212	TRIM101	27-Jan-10	-	409872	6273216	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	13639.67	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	13640	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
213	TRIM102	27-Jan-10	-	414983	6272283	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12928.23	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	12928	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
214	TRIM103	27-Jan-10	-	405191	6266077	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11427.93	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	11428	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
215	TRIM104	27-Jan-10	-	407689	6276197	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11368.34	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	11368	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
216	TRIM105	27-Jan-10	-	411045	6276968	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10757.99	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	10758	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
217	TRIM106	27-Jan-10	-	425190	6265448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10579.62	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	10580	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
218	TRIM107	27-Jan-10	-	426741	6258936	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10260.49	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	10260	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
219	TRIM108	27-Jan-10	-	433546	6276888	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9012.90	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	9013	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
220	TRIM109	27-Jan-10	-	432488	6278525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9003.77	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	9004	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
221	TRIM110	27-Jan-10	-	404421	6267615	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8987.69	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	8988	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
222	TRIM111	27-Jan-10	-	425914	6260828	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8551.20	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	8551	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
223	TRIM112	27-Jan-10	-	407344	6272670	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8423.15	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	8423	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
224	TRIM113	27-Jan-10	-	405941	6274671	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7863.74	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	7864	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
225	TRIM114	27-Jan-10	-	407285	6275853	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7682.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	7682	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
226	TRIM115	27-Jan-10	-	415063	6272805	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7522.75	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	7523	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
227	TRIM116	27-Jan-10	-	412400	6274597	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7422.12	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	7422	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
228	TRIM117	27-Jan-10	-	425893	6260497	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7288.81	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	7289	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
229	TRIM118	27-Jan-10	-	407437	6276298	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7139.29	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	7139	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
230	TRIM119	27-Jan-10	-	409015	6277771	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6930.57	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6931	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
231	TRIM120	27-Jan-10	-	425458	6260243	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6911.41	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6911	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
232	TRIM121	27-Jan-10	-	410357	6272126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6903.49	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6903	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
233	TRIM122	27-Jan-10	-	407293	6270315	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6635.98	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6636	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
234	TRIM123	27-Jan-10	-	412669	6269908	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6607.59	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6608	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
235	TRIM124	27-Jan-10	-	409440	6273774	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6224.41	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6224	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
236	TRIM125	27-Jan-10	-	406691	6274086	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6206.41	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6206	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
237	TRIM126	27-Jan-10	-	406834	6275241	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6126.38	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6126	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
238	TRIM127	27-Jan-10	-	434132	6276057	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6072.35	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6072	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
239	TRIM128	27-Jan-10	-	405173	6274342	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6071.19	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6071	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
240	TRIM129	27-Jan-10	-	433691	6277157	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6041.69	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	6042	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
241	TRIM130	27-Jan-10	-	405034	6265383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5892.70	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5893	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
242	TRIM131	27-Jan-10	-	411387	6271359	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5862.61	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5863	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
243	TRIM132	27-Jan-10	-	407645	6276781	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5820.71	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5821	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
244	TRIM133	27-Jan-10	-	414131	6271794	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5793.73	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5794	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
245	TRIM134	27-Jan-10	-	406196	6274673	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5618.57	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5619	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
246	TRIM135	27-Jan-10	-	433649	6275950	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5589.01	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5589	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
247	TRIM136	27-Jan-10	-	405480	6265395	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5566.06	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5566	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
248	TRIM137	27-Jan-10	-	412976	6276371	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5555.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5556	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
249	TRIM138	27-Jan-10	-	405365	6273771	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5481.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5482	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
250	TRIM139	27-Jan-10	-	413002	6268832	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5284.30	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5284	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
251	TRIM140	27-Jan-10	-	404386	6266193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	5094.05	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	5094	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
252	TRIM141	27-Jan-10	-	412792	6269550	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4913.60	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4914	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
253	TRIM142	27-Jan-10	-	413463	6278414	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4859.95	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4860	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
254	TRIM143	27-Jan-10	-	409263	6274239	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4705.95	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4706	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
255	TRIM144	27-Jan-10	-	405583	6267551	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4596.55	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4597	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
256	TRIM145	27-Jan-10	-	410802	6276423	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4578.94	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4579	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
257	TRIM146	27-Jan-10	-	408431	6272072	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4469.35	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4469	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
258	TRIM147	27-Jan-10	-	408795	6278033	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4462.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4463	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
259	TRIM148	27-Jan-10	-	444755	6272362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4362.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4363	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
260	TRIM149	27-Jan-10	-	411614	6276272	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4323.25	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4323	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
261	TRIM150	27-Jan-10	-	409419	6268982	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4277.45	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4277	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
262	TRIM151	27-Jan-10	-	426431	6259811	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4170.19	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4170	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
263	TRIM152	27-Jan-10	-	410870	6276196	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4107.52	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4108	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
264	TRIM153	27-Jan-10	-	425901	6260616	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4093.57	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4094	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
265	TRIM154	27-Jan-10	-	407363	6278204	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4086.07	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4086	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
266	TRIM155	27-Jan-10	-	408374	6271900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4020.03	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4020	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
267	TRIM156	27-Jan-10	-	444229	6289422	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4015.00	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	4015	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
268	TRIM157	27-Jan-10	-	406069	6277020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3992.41	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3992	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
269	TRIM158	27-Jan-10	-	405240	6271296	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3983.31	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3983	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
270	TRIM159	27-Jan-10	-	405301	6273295	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3936.60	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3937	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
271	TRIM160	27-Jan-10	-	410131	6268115	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3931.68	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3932	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
272	TRIM161	27-Jan-10	-	407333	6278704	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3881.84	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3882	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
273	TRIM162	27-Jan-10	-	443063	6289581	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3811.00	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3811	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
274	TRIM163	27-Jan-10	-	407281	6276255	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3764.81	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3765	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
275	TRIM164	27-Jan-10	-	407608	6278065	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3716.27	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3716	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
276	TRIM165	27-Jan-10	-	410592	6275429	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3662.33	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3662	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
277	TRIM166	27-Jan-10	-	405170	6270989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3648.06	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3648	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
278	TRIM167	27-Jan-10	-	408708	6276339	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3543.33	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3543	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
279	TRIM168	27-Jan-10	-	405758	6276784	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3525.84	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3526	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
280	TRIM169	27-Jan-10	-	413492	6279099	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3382.91	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3383	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
281	TRIM170	27-Jan-10	-	405912	6264299	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3374.71	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3375	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
282	TRIM171	27-Jan-10	-	408520	6266142	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3298.54	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3299	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
283	TRIM172	27-Jan-10	-	410950	6263202	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3278.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3279	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
284	TRIM173	27-Jan-10	-	413361	6269554	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3271.33	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3271	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
285	TRIM174	27-Jan-10	-	408195	6271361	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3252.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3253	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
286	TRIM175	27-Jan-10	-	444772	6288077	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3196.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3197	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
287	TRIM176	27-Jan-10	-	411155	6275535	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3189.41	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3189	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
288	TRIM177	27-Jan-10	-	438143	6277966	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3038.09	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3038	-	-	-	-	-	-	-	-	-	TRIM	BAFA	unp	BAFAunp
289	TRIM178	27-Jan-10	-	426539	6258536	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3003.13	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	3003	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
290	TRIM179	27-Jan-10	-	408156	6276028	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2998.71	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2999	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
291	TRIM180	27-Jan-10	-	405645	6271257	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2945.87	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2946	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
292	TRIM181	27-Jan-10	-	409768	6265329	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2933.26	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2933	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
293	TRIM182	27-Jan-10	-	413378	6269996	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2887.59	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2888	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
294	TRIM183	27-Jan-10	-	407683	6271434	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2848.07	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2848	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
295	TRIM184	27-Jan-10	-	412881	6269883	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2711.16	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2711	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
296	TRIM185	27-Jan-10	-	408789	6267924	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2680.70	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2681	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
297	TRIM186	27-Jan-10	-	406236	6278397	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2652.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2653	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
298	TRIM187	27-Jan-10	-	410099	6274207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2627.71	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2628	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
299	TRIM188	27-Jan-10	-	409605	6276454	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2604.36	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2604	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
300	TRIM189	27-Jan-10	-	409329	6278240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2488.10	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2488	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
301	TRIM190	27-Jan-10	-	432117	6278131	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2476.46	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2476	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
302	TRIM191	27-Jan-10	-	406863	6274787	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2413.12	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2413	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
303	TRIM192	27-Jan-10	-	426527	6259665	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2320.89	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2321	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
304	TRIM193	27-Jan-10	-	406728	6276840	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2318.55	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2319	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
305	TRIM194	27-Jan-10	-	410332	6276352	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2305.81	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2306	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
306	TRIM195	27-Jan-10	-	406403	6277007	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2302.95	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2303	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
307	TRIM196	27-Jan-10	-	414866	6270092	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2297.95	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2298	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
308	TRIM197	27-Jan-10	-	407605	6278619	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2282.28	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2282	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp

Appendix 1. Wetland Ecosystem Field Data

ID	Plot	Date	Location	Easting	Northing	Elevation	Photo Numbers	Slope (%)	Aspect °	Meso Slope Position	Drainage Mineral Soils	Organic Soil Moisture	Mineral Soil Texture	Organic Soil Texture	Surface Organic Thickness	pH	Conductivity (ms)	Hydrodynamic Index	Soil Moisture Regime	Soil Nutrient Regime	Von Post	Polygon Area (m²)	Wetland Class_1	Assn_ Code_1	Decile Percent 1	Association Name	Assn_ Area_1	Wetland Class_2	Assn_ Code_2	Decile Percent 2	Assn_ Area_2	Wetland Class3	Assn_ Code_3	Decile Percent 3	Assn_ Area_3	Notes	Source	ZONE	SUBZONE	BGC_LABEL
309	TRIM198	27-Jan-10	-	445539	6272022	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2250.00	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2250	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
310	TRIM199	27-Jan-10	-	445056	6287980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2242.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2243	-	-	-	-	-	-	-	-	-	TRIM	ICH	vc	ICH vc
311	TRIM200	27-Jan-10	-	406748	6277383	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2241.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2242	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
312	TRIM201	27-Jan-10	-	405233	6267778	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2234.49	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2234	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
313	TRIM202	27-Jan-10	-	404909	6267349	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2229.26	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2229	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
314	TRIM203	27-Jan-10	-	405343	6275265	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2085.75	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2086	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
315	TRIM204	27-Jan-10	-	425437	6259232	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2079.24	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2079	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
316	TRIM205	27-Jan-10	-	410308	6278814	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2064.06	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2064	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
317	TRIM206	27-Jan-10	-	425511	6260018	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2048.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2049	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
318	TRIM207	27-Jan-10	-	405348	6271602	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2040.45	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2040	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
319	TRIM208	27-Jan-10	-	407055	6277590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2033.59	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2034	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
320	TRIM209	27-Jan-10	-	405498	6269977	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2028.99	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2029	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
321	TRIM210	27-Jan-10	-	405109	6265280	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2018.43	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2018	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
322	TRIM211	27-Jan-10	-	413795	6279006	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2000.93	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2001	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
323	TRIM212	27-Jan-10	-	406443	6274821	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1912.27	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1912	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
324	TRIM213	27-Jan-10	-	415416	6260130	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1890.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1891	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
325	TRIM214	27-Jan-10	-	408503	6263002	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1834.21	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1834	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
326	TRIM215	27-Jan-10	-	406384	6277220	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1813.12	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1813	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
327	TRIM216	27-Jan-10	-	405309	6274255	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1771.14	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1771	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
328	TRIM217	27-Jan-10	-	405938	6275995	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1767.38	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1767	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
329	TRIM218	27-Jan-10	-	407748	6278510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1763.03	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1763	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
330	TRIM219	27-Jan-10	-	410806	6275974	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1739.91	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1740	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
331	TRIM220	27-Jan-10	-	409231	6260444	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1702.62	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1703	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
332	TRIM221	27-Jan-10	-	422350	6259456	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1694.90	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1695	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
333	TRIM222	27-Jan-10	-	438885	6276906	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1693.16	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1693	-	-	-	-	-	-	-	-	-	TRIM	BAFA	unp	BAFAunp
334	TRIM223	27-Jan-10	-	405959	6262460	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1682.99	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1683	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
335	TRIM224	27-Jan-10	-	405460	6264394	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1660.69	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1661	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
336	TRIM225	27-Jan-10	-	406646	6273370	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1611.94	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1612	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
337	TRIM226	27-Jan-10	-	410039	6276866	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1602.44	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1602	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
338	TRIM227	27-Jan-10	-	405463	6273599	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1594.78	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1595	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
339	TRIM228	27-Jan-10	-	407940	6272476	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1594.26	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1594	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
340	TRIM229	27-Jan-10	-	409441	6274004	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1566.67	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1567	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
341	TRIM230	27-Jan-10	-	407646	6273645	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1548.85	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1549	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
342	TRIM231	27-Jan-10	-	404947	6262525	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1546.86	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1547	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
343	TRIM232	27-Jan-10	-	408244	6278749	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1544.84	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1545	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
344	TRIM233	27-Jan-10	-	425156	6258668	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1531.30	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1531	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
346	TRIM235	27-Jan-10	-	406599	6277205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1469.20	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1469	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
347	TRIM236	27-Jan-10	-	408706	6266104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1468.20	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1468	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
348	TRIM237	27-Jan-10	-	408279	6273206	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1461.48	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1461	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
349	TRIM238	27-Jan-10	-	407267	6278594	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1441.86	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1442	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
350	TRIM239	27-Jan-10	-	405060	6265647	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1417.81	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1418	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
351	TRIM240	27-Jan-10	-	405779	6276650	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1404.78	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1405	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
352	TRIM241	27-Jan-10	-	411343	6272804	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1389.09	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1389	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
353	TRIM242	27-Jan-10	-	406958	6277473	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1384.99	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1385	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
354	TRIM243	27-Jan-10	-	407957	6271924	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1383.82	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1384	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
355	TRIM244	27-Jan-10	-	405480	6273702	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1375.87	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1376	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
356	TRIM245	27-Jan-10	-	411222	6277619	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1355.86	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1356	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
357	TRIM246	27-Jan-10	-	410646	6277553	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1353.64	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1354	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
358	TRIM247	27-Jan-10	-	405281	6262116	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1348.71	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1349	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
359	TRIM248	27-Jan-10	-	446859	6277553	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1345.93	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1346	-	-	-	-	-	-	-	-	-	TRIM	BAFA	unp	BAFAunp
360	TRIM249	27-Jan-10	-	407926	6277461	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1343.84	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1344	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
361	TRIM250	27-Jan-10	-	406073	6270600	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1311.47	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1311	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
362	TRIM251	27-Jan-10	-	406326	6275884	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1309.55	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1310	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
363	TRIM252	27-Jan-10	-	409084	6278781	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1286.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1287	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
364	TRIM253	27-Jan-10	-	405450	6272938	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1276.68	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1277	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
365	TRIM254	27-Jan-10	-	408382	6276392	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1271.60	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1272	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
366	TRIM255	27-Jan-10	-	406107	6270981	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1268.55	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1269	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
367	TRIM256	27-Jan-10	-	406081	6276959	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1265.78	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1266	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
368	TRIM257	27-Jan-10	-	410353	6275106	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1261.84	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1262	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
369	TRIM258	27-Jan-10	-	410010	6264937	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1256.16	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1256	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
370	TRIM259	27-Jan-10	-	408062	6261776	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1245.52	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1246	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
371	TRIM260	27-Jan-10	-	407860	6271726	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1242.16	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1242	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
372	TRIM261	27-Jan-10	-	411452	6272645	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1236.52	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1237	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
373	TRIM262	27-Jan-10	-	408677	6275202	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1223.21	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1223	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
374	TRIM263	27-Jan-10	-	410275	6275643	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1215.86	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1216	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
375	TRIM264	27-Jan-10	-	406590	6277374	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1201.53	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1202	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
376	TRIM265	27-Jan-10	-	411596	6263487	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1200.77	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1201	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
377	TRIM266	27-Jan-10	-	415319	6260162	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1195.22	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1195	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
378	TRIM267	27-Jan-10	-	405317	6271883	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1185.47	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1185	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
379	TRIM268	27-Jan-10	-	408297	6271728	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1181.26	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1181	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
380	TRIM269	27-Jan-10	-	407104	6275734	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1168.68	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1169	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
381	TRIM270	27-Jan-10	-	414912	6272332	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1168.60	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1169	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
382	TRIM271	27-Jan-10	-	433511	6277189	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1155.31	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1155	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
383	TRIM272	27-Jan-10	-	424826	6259165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1154.04	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1154	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
384	TRIM273	27-Jan-10	-	410109	6278059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1137.28	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1137	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
385	TRIM274	27-Jan-10	-	413618	6276190	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1118.08	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1118	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
386	TRIM275	27-Jan-10	-	442609	6278979	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1113.15	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1113	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
387	TRIM276	27-Jan-10	-	406281	6274473	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1111.30	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1111	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
388	TRIM277	27-Jan-10	-	413502	6278779	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1097.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1098	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
389	TRIM278	27-Jan-10	-	406699	6273666	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1096.64	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1097	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
390	TRIM279	27-Jan-10	-	404599	6266564	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1080.95	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1081	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
391	TRIM280	27-Jan-10	-	407161	6275599	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1077.65	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1078	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
392	TRIM281	27-Jan-10	-	411469	6275573	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1075.46	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1075	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
393	TRIM282	27-Jan-10	-	407749	6278323	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1071.93	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1072	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
394	TRIM283	27-Jan-10	-	444969	6272282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1070.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1070	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
395	TRIM284	27-Jan-10	-	407384	6272226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1067.09	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1067	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
396	TRIM285	27-Jan-10	-	405186	6275788	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1055.88	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1056	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
397	TRIM286	27-Jan-10	-	405195	6273405	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1049.77	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1050	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
398	TRIM287	27-Jan-10	-	405828	6274923	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1049.15	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1049	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
399	TRIM288	27-Jan-10	-	444984	6274062	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1044.03	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1044	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
400	TRIM289	27-Jan-10	-	411290	6278696	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1042.18	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1042	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
401	TRIM290	27-Jan-10	-	405466	6275614	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1041.92	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1042	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
402	TRIM291	27-Jan-10	-	405895	6263331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1020.07	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1020	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
403	TRIM292	27-Jan-10	-	411380	6275494	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1019.39	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1019	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
404	TRIM293	27-Jan-10	-	406007	6275852	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1018.53	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1019	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
405	TRIM294	27-Jan-10	-	405168	6271207	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1007.79	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1008	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
406	TRIM295	27-Jan-10	-	404549	6266522	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1005.25	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	1005	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm

Appendix 1. Wetland Ecosystem Field Data

ID	Plot	Date	Location	Easting	Northing	Elevation	Photo Numbers	Slope (%)	Aspect°	Meso Slope Position	Drainage Mineral Soils	Organic Soil Moisture	Mineral Soil Texture	Organic Soil Texture	Surface Organic Thickness	pH	Conductivity (ms)	Hydrodynamic Index	Soil Moisture Regime	Soil Nutrient Regime	Von Post	Polygon Area (m^2)	Wetland Class_1	Assn_ Code_1	Decile Percent 1	Association Name	Assn_ Area_1	Wetland Class_2	Assn_ Code_2	Decile Percent 2	Assn_ Area_2	Wetland Class3	Assn_ Code_3	Decile Percent 3	Assn_ Area_3	Notes	Source	ZONE	SUBZONE	BGC_LABEL
407	TRIM296	27-Jan-10	-	405334	6277590	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	991.49	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	991	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
408	TRIM297	27-Jan-10	-	410253	6276165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	990.69	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	991	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
409	TRIM298	27-Jan-10	-	408647	6262902	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	989.39	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	989	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
410	TRIM299	27-Jan-10	-	405421	6271925	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	984.74	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	985	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
411	TRIM300	27-Jan-10	-	408360	6276154	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	980.94	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	981	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
412	TRIM301	27-Jan-10	-	406757	6273274	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	976.07	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	976	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
413	TRIM302	27-Jan-10	-	408529	6272288	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	970.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	971	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
414	TRIM303	27-Jan-10	-	407900	6278544	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	963.58	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	964	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
415	TRIM304	27-Jan-10	-	411415	6278208	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	963.04	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	963	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
416	TRIM305	27-Jan-10	-	413332	6270362	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	955.27	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	955	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
417	TRIM306	27-Jan-10	-	405876	6263640	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	945.47	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	945	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
418	TRIM307	27-Jan-10	-	405955	6270656	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	932.46	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	932	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
419	TRIM308	27-Jan-10	-	412986	6270324	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	897.58	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	898	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
420	TRIM309	27-Jan-10	-	406178	6275806	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	896.94	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	897	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
421	TRIM310	27-Jan-10	-	413046	6278869	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	893.36	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	893	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
422	TRIM311	27-Jan-10	-	411657	6278339	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	892.97	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	893	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
423	TRIM312	27-Jan-10	-	407900	6276009	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	890.25	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	890	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
424	TRIM313	27-Jan-10	-	406377	6275980	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	887.72	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	888	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
425	TRIM314	27-Jan-10	-	406276	6273900	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	885.73	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	886	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
426	TRIM315	27-Jan-10	-	413178	6269723	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	872.83	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	873	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
427	TRIM316	27-Jan-10	-	407262	6275946	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	871.42	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	871	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
428	TRIM317	27-Jan-10	-	406060	6274059	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	870.71	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	871	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
429	TRIM318	27-Jan-10	-	411791	6278877	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	857.40	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	857	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
430	TRIM319	27-Jan-10	-	409136	6275097	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	851.45	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	851	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
431	TRIM320	27-Jan-10	-	409934	6275638	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	848.17	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	848	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
432	TRIM321	27-Jan-10	-	405713	6269476	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	846.01	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	846	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
433	TRIM322	27-Jan-10	-	408176	6274112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	835.40	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	835	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
434	TRIM323	27-Jan-10	-	408662	6278125	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	831.70	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	832	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
435	TRIM324	27-Jan-10	-	411461	6278153	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	827.42	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	827	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
436	TRIM325	27-Jan-10	-	413164	6271034	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	823.97	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	824	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
437	TRIM326	27-Jan-10	-	405032	6262315	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	814.92	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	815	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
438	TRIM327	27-Jan-10	-	405501	6272165	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	808.30	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	808	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
439	TRIM328	27-Jan-10	-	408958	6275832	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	805.81	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	806	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
440	TRIM329	27-Jan-10	-	445381	6272115	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	804.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	805	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
441	TRIM330	27-Jan-10	-	408550	6278516	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	801.60	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	802	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
442	TRIM331	27-Jan-10	-	411224	6277770	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	793.46	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	793	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
443	TRIM332	27-Jan-10	-	405260	6271572	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	791.88	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	792	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
444	TRIM333	27-Jan-10	-	445373	6274113	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	789.51	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	790	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
445	TRIM334	27-Jan-10	-	405977	6262575	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	784.52	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	785	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
446	TRIM335	27-Jan-10	-	406109	6276213	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	779.24	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	779	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
447	TRIM336	27-Jan-10	-	444441	6272408	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	775.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	776	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
448	TRIM337	27-Jan-10	-	406053	6270920	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	765.96	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	766	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
449	TRIM338	27-Jan-10	-	405979	6274259	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	752.18	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	752	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
450	TRIM339	27-Jan-10	-	444537	6272391	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	750.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	751	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
451	TRIM340	27-Jan-10	-	405953	6274320	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	745.60	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	746	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
452	TRIM341	27-Jan-10	-	406507	6274876	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	745.33	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	745	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
453	TRIM342	27-Jan-10	-	407671	6270504	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	732.89	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	733	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
454	TRIM343	27-Jan-10	-	407184	6276099	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	725.28	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	725	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
455	TRIM344	27-Jan-10	-	426544	6259351	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	724.21	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	724	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
456	TRIM345	27-Jan-10	-	424336	6264090	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	720.07	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	720	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
457	TRIM346	27-Jan-10	-	407249	6275609	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	717.09	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	717	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
458	TRIM347	27-Jan-10	-	408022	6276120	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	713.28	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	713	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
459	TRIM348	27-Jan-10	-	405617	6269757	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	712.12	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	712	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
460	TRIM349	27-Jan-10	-	432224	6277603	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	711.77	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	712	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
461	TRIM350	27-Jan-10	-	406008	6274149	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	708.09	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	708	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
462	TRIM351	27-Jan-10	-	405579	6267343	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	708.04	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	708	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
463	TRIM352	27-Jan-10	-	404953	6274886	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	707.87	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	708	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
464	TRIM353	27-Jan-10	-	407915	6272337	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	697.41	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	697	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
465	TRIM354	27-Jan-10	-	408394	6278514	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	682.54	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	683	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
466	TRIM355	27-Jan-10	-	443544	6274466	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	667.17	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	667	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
467	TRIM356	27-Jan-10	-	409394	6275271	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	665.00	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	665	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
468	TRIM357	27-Jan-10	-	411471	6278273	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	661.30	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	661	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
469	TRIM358	27-Jan-10	-	412001	6273510	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	650.76	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	651	-	-	-	-	-	-	-	-	-	TRIM	CWH	wm	CWH wm
470	TRIM359	27-Jan-10	-	407960	6277783	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	646.60	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	647	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
471	TRIM360	27-Jan-10	-	405822	6263309	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	635.23	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	635	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
472	TRIM361	27-Jan-10	-	403766	6268379	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	634.57	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	635	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
473	TRIM362	27-Jan-10	-	405531	6267269	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	621.07	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	621	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
474	TRIM363	27-Jan-10	-	408981	6274893	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	620.66	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	621	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
475	TRIM364	27-Jan-10	-	431817	6277668	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	605.76	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	606	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
476	TRIM365	27-Jan-10	-	409650	6274014	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	604.08	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	604	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
477	TRIM366	27-Jan-10	-	405331	6271662	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	598.58	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	599	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
478	TRIM367	27-Jan-10	-	405754	6270226	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	592.58	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	593	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
479	TRIM368	27-Jan-10	-	405610	6263879	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	588.06	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	588	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
480	TRIM369	27-Jan-10	-	413460	6270986	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	584.78	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	585	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
481	TRIM370	27-Jan-10	-	405378	6271433	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	576.22	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	576	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
482	TRIM371	27-Jan-10	-	407959	6277539	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	573.57	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	574	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
483	TRIM372	27-Jan-10	-	407800	6272170	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	572.61	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	573	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
484	TRIM373	27-Jan-10	-	407859	6273374	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	558.80	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	559	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
485	TRIM374	27-Jan-10	-	405195	6262161	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	558.76	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	559	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
486	TRIM375	27-Jan-10	-	441933	6287331	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	553.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	554	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
487	TRIM376	27-Jan-10	-	436929	6278480	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	551.39	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	551	-	-	-	-	-	-	-	-	-	TRIM	BAFA	unp	BAFAunp
488	TRIM377	27-Jan-10	-	409602	6275369	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	541.89	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	542	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
489	TRIM378	27-Jan-10	-	425917	6259989	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	541.04	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	541	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
490	TRIM379	27-Jan-10	-	411404	6278441	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	533.03	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	533	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
491	TRIM380	27-Jan-10	-	405168	6271641	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	528.11	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	528	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
492	TRIM381	27-Jan-10	-	405742	6276150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	522.95	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	523	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
493	TRIM382	27-Jan-10	-	408599	6272314	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	521.15	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	521	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
494	TRIM383	27-Jan-10	-	406298	6277119	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	518.49	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	518	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
495	TRIM384	27-Jan-10	-	406401	6276942	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	509.42	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	509	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
496	TRIM385	27-Jan-10	-	411942	6277260	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	500.72	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	501	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
497	TRIM386	27-Jan-10	-	407489	6276020	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	496.61	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	497	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
498	TRIM387	27-Jan-10	-	405885	6262268	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	490.93	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	491	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
499	TRIM388	27-Jan-10	-	434000	6276178	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	488.34	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	488	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
500	TRIM389	27-Jan-10	-	407656	6276413	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	486.71	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	487	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
501	TRIM390	27-Jan-10	-	409180	6275772	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	485.42	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	485	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
502	TRIM391	27-Jan-10	-	406969	6275464	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	480.95	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	481	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
503	TRIM392	27-Jan-10	-	434714	6276580	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	476.96	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	477	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv

Appendix 1. Wetland Ecosystem Field Data

ID	Plot	Date	Location	Easting	Northing	Elevation	Photo Numbers	Slope (%)	Aspect °	Meso Slope Position	Drainage Mineral Soils	Organic Soil Moisture	Mineral Soil Texture	Organic Soil Texture	Surface Organic Thickness	pH	Conductivity (ms)	Hydrodynamic Index	Soil Moisture Regime	Soil Nutrient Regime	Von Post	Polygon Area (m^2)	Wetland Class_1	Assn_ Code_1	Decile Percent 1	Association Name	Assn_ Area_1	Wetland Class_2	Assn_ Code_2	Decile Percent 2	Assn_ Area_2	Wetland Class3	Assn_ Code_3	Decile Percent 3	Assn_ Area_3	Notes	Source	ZONE	SUBZONE	BGC_LABEL
504	TRIM393	27-Jan-10	-	412495	6278853	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	464.74	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	465	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
505	TRIM394	27-Jan-10	-	408912	6276406	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	458.02	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	458	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
506	TRIM395	27-Jan-10	-	411463	6278472	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	457.19	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	457	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
507	TRIM396	27-Jan-10	-	409049	6273261	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	441.96	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	442	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
508	TRIM397	27-Jan-10	-	432382	6278102	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	440.66	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	441	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
509	TRIM398	27-Jan-10	-	406757	6274882	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	429.93	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	430	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
510	TRIM399	27-Jan-10	-	409631	6273701	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	429.07	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	429	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
511	TRIM400	27-Jan-10	-	405681	6270013	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	416.59	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	417	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
512	TRIM401	27-Jan-10	-	409256	6275215	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	407.89	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	408	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
513	TRIM402	27-Jan-10	-	407250	6278084	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	402.35	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	402	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
514	TRIM403	27-Jan-10	-	405814	6270148	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	402.26	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	402	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
515	TRIM404	27-Jan-10	-	406023	6275748	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	394.10	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	394	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
516	TRIM405	27-Jan-10	-	407553	6271205	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	380.51	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	381	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
517	TRIM406	27-Jan-10	-	406239	6275675	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	376.44	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	376	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
518	TRIM407	27-Jan-10	-	407854	6272200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	374.72	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	375	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
519	TRIM408	27-Jan-10	-	405078	6271360	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	372.36	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	372	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
520	TRIM409	27-Jan-10	-	405376	6271737	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	371.04	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	371	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
521	TRIM410	27-Jan-10	-	411011	6278344	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	364.31	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	364	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
522	TRIM411	27-Jan-10	-	407941	6272254	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	363.56	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	364	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
523	TRIM412	27-Jan-10	-	406079	6275395	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	359.99	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	360	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
524	TRIM413	27-Jan-10	-	432122	6278374	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	357.41	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	357	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
525	TRIM414	27-Jan-10	-	434693	6276703	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	356.02	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	356	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
526	TRIM415	27-Jan-10	-	405731	6269619	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	351.50	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	352	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
527	TRIM416	27-Jan-10	-	433371	6277293	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	348.97	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	349	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
528	TRIM417	27-Jan-10	-	408533	6273377	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	346.63	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	347	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
529	TRIM418	27-Jan-10	-	433339	6277322	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	342.79	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	343	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
530	TRIM419	27-Jan-10	-	409915	6273186	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	339.35	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	339	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
531	TRIM420	27-Jan-10	-	407886	6272289	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	337.51	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	338	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
532	TRIM421	27-Jan-10	-	405255	6262064	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	336.08	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	336	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
533	TRIM422	27-Jan-10	-	407149	6275814	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	327.32	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	327	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
534	TRIM423	27-Jan-10	-	408118	6273819	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	325.24	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	325	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
535	TRIM424	27-Jan-10	-	406646	6273564	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	316.34	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	316	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
536	TRIM425	27-Jan-10	-	405726	6268658	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	313.15	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	313	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
537	TRIM426	27-Jan-10	-	411859	6270410	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	311.59	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	312	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
538	TRIM427	27-Jan-10	-	405210	6273312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	310.14	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	310	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
539	TRIM428	27-Jan-10	-	405995	6276111	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	308.62	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	309	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
540	TRIM429	27-Jan-10	-	413513	6271174	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	308.15	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	308	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
541	TRIM430	27-Jan-10	-	407582	6276448	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	306.53	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	307	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
542	TRIM431	27-Jan-10	-	408267	6276064	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	304.56	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	305	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
543	TRIM432	27-Jan-10	-	408044	6277672	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	301.91	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	302	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
544	TRIM433	27-Jan-10	-	410593	6278291	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	298.62	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	299	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv
545	TRIM434	27-Jan-10	-	406650	6273434	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	274.27	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	274	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
546	TRIM435	27-Jan-10	-	408911	6278089	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	274.08	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	274	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
547	TRIM436	27-Jan-10	-	409111	6260389	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	271.22	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	271	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
548	TRIM437	27-Jan-10	-	407381	6272284	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	271.14	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	271	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
549	TRIM438	27-Jan-10	-	406026	6262661	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	262.85	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	263	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
550	TRIM439	27-Jan-10	-	446597	6276764	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	252.10	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	252	-	-	-	-	-	-	-	-	-	TRIM	BAFA	unp	BAFAunp
551	TRIM440	27-Jan-10	-	406789	6275139	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	250.73	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	251	-	-	-	-	-	-	-	-	-	TRIM	CMA	unp	CMA unp
552	TRIM441	27-Jan-10	-	405131	6271040	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	241.25	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	241	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
553	TRIM442	27-Jan-10	-	405078	6271054	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	217.66	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	218	-	-	-	-	-	-	-	-	-	TRIM	MH	un	MH un
554	TRIM443	27-Jan-10	-	432153	6278289	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2.13	TRIM Open Water	TRIM Open Water	100	TRIM Open Water	2	-	-	-	-	-	-	-	-	-	TRIM	ESSF	wv	ESSFwv

Appendix 2

Wetland Ecosystem Vegetation

SEABRIDGE GOLD

Engineers and Scientists

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS001	*Rubus*	*arcticus*	*2*
KS001	*Salix*	*commutata*	*3*
KS001	*Carex*	*aquatilis*	*55*
KS001	*Eriophorum*	*angustifolium*	*10*
KS001	*Comarum*	*palustre*	*2*
KS001	*Leptarrhena*	*pyrolifolia*	*2*
KS001	*Sanguisorba*	*canadensis*	*2*
KS001	*Caltha*	*leptosepala*	*2*
KS001	*Equisetum*	*arvense*	*0.5*
KS001	*Grass*	*sp*	*0.5*
KS001	*Platanthera*	*dilatata*	*0.5*
KS001	*Senecio*	*triangularis*	*0.5*
KS001	*Veratrum*	*viride*	*0.5*
KS001	*Viola*	*sp*	*0.5*
KS001	*Sphagnum*	*sp*	*50*
KS001	*Erigeron*	*philadelphicus*	*0.5*
KS002	*Salix*	*commutata*	*20*
KS002	*Salix*	*barclayi*	*20*
KS002	*Salix*	*barrattiana*	*20*
KS002	*Picea*	*sp*	*2*
KS002	*Carex*	*aquatilis*	*60*
KS002	*Deschampsia*	*caespitosa*	*2*
KS002	*Eriophorum*	*angustifolium*	*20*
KS002	*Platanthera*	*dilatata*	*0.5*
KS002	*Equisetum*	*arvense*	*0.5*
KS002	*Sanguisorba*	*canadensis*	*4*
KS002	*Comarum*	*palustre*	*5*
KS002	*Calamagrostis*	*canadensis*	*1*
KS002	*Senecio*	*triangularis*	*0.5*
KS002	*Viola*	*sp*	*0.5*
KS002	*Athyrium*	*filix-femina*	*0.5*
KS002	*Caltha*	*leptosepala*	*0.5*
KS002	*Pleurozium*	*schreberi*	*10*
KS002	*Sphagnum*	*sp*	*50*
KS002	*Aulacommium*	*palustre*	*10*
KS003	*Salix*	*sitchensis*	*30*
KS003	*Salix*	*stolonifera*	*30*
KS003	*Salix*	*barrattiana*	*20*
KS003	*Equisetum*	*arvense*	*15*
KS003	*Platanthera*	*dilatata*	*0.5*
KS003	*Drepanocladus*	*uncinatus*	*60*
KS004	*Salix*	*barrattiana*	*10*
KS004	*Salix*	*commutata*	*10*
KS004	*Salix*	*stolonifera*	*10*
KS004	*Salix*	*sitchensis*	*10*
KS004	*Salix*	*barclayi*	*30*
KS004	*Equisetum*	*arvense*	*5*
KS004	*Carex*	*aquatilis*	*20*
KS004	*Drepanocladus*	*uncinatus*	*20*
KS005	*Salix*	*barclayi*	*20*
KS005	*Salix*	*barrattiana*	*10*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS005	*Salix*	*sitchensis*	*30*
KS005	*Equisetum*	*arvense*	*1*
KS005	*Leptarrhena*	*pyrolifolia*	*1*
KS005	*Carex*	*sitchensis*	*40*
KS005	*Mnium*	*sp*	*5*
KS005	*Marchantia*	*polymorpha*	*1*
KS005	*Moss*	*sp*	*2*
KS005	*Sphagnum*	*sp*	*15*
KS005	*Aulacommium*	*palustre*	*2*
KS006	*Salix*	*barclayi*	*15*
KS006	*Carex*	*sitchensis*	*25*
KS006	*Eriophorum*	*angustifolium*	*25*
KS006	*Senecio*	*triangularis*	*1*
KS006	*Viola*	*sp*	*0.5*
KS006	*Rubus*	*arcticus*	*0.5*
KS006	*Sanguisorba*	*canadensis*	*1*
KS006	*Grass*	*sp*	*0.5*
KS006	*Carex*	*utriculata*	*5*
KS006	*Carex*	*sp*	*5*
KS006	*Sphagnum*	*sp*	*30*
KS006	*Aulacommium*	*palustre*	*20*
KS007	*Salix*	*barclayi*	*50*
KS007	*Salix*	*commutata*	*5*
KS007	*Salix*	*sitchensis*	*5*
KS007	*Carex*	*sitchensis*	*70*
KS007	*Leptarrhena*	*pyrolifolia*	*5*
KS007	*Viola*	*sp*	*1*
KS007	*Sanguisorba*	*canadensis*	*2*
KS007	*Equisetum*	*arvense*	*1*
KS007	*Senecio*	*triangularis*	*1*
KS007	*Sphagnum*	*sp*	*30*
KS007	*Moss*	*sp*	*20*
KS008	*Salix*	*sitchensis*	*60*
KS008	*Equisetum*	*arvense*	*40*
KS008	*Sanguisorba*	*canadensis*	*2*
KS008	*Epilobium*	*angustifolium*	*0.5*
KS008	*Senecio*	*triangularis*	*0.5*
KS008	*Carex*	*sp*	*2*
KS008	*Mnium*	*sp*	*5*
KS008	*Drepanocladus*	*uncinatus*	*10*
KS008	*Moss*	*sp*	*15*
KS009	*Salix*	*sitchensis*	*30*
KS009	*Salix*	*barclayi*	*30*
KS009	*Carex*	*sitchensis*	*79*
KS009	*Poa*	*sp*	*0.5*
KS009	*Equisetum*	*arvense*	*0.5*
KS009	*Aulacommium*	*palustre*	*5*
KS009	*Sphagnum*	*sp*	*10*
KS009	*Liverwort*	*sp*	*5*
KS010	*Salix*	*barclayi*	*15*
KS010	*Salix*	*sitchensis*	*15*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS010	*Carex*	*aquatilis*	*30*
KS010	*Carex*	*sitchensis*	*60*
KS010	*Sphagnum*	*sp*	*50*
KS010	*Mnium*	*sp*	*5*
KS011	*Salix*	*barclayi*	*20*
KS011	*Carex*	*aquatilis*	*40*
KS011	*Carex*	*sitchensis*	*40*
KS011	*Eriophorum*	*angustifolium*	*10*
KS011	*Sanguisorba*	*canadensis*	*1*
KS011	*Comarum*	*palustre*	*1*
KS011	*Poa*	*sp*	*0.5*
KS011	*Rubus*	*arcticus*	*1*
KS011	*Viola*	*sp*	*0.5*
KS011	*Leptarrhena*	*pyrolifolia*	*1*
KS011	*Grass*	*sp*	*1*
KS011	*Sphagnum*	*sp*	*40*
KS011	*Aulacommium*	*palustre*	*20*
KS012	*Salix*	*barclayi*	*6*
KS012	*Salix*	*commutata*	*4*
KS012	*Leptarrhena*	*pyrolifolia*	*3*
KS012	*Eriophorum*	*angustifolium*	*20*
KS012	*Carex*	*aquatilis*	*30*
KS012	*Equisetum*	*arvense*	*5*
KS012	*Viola*	*sp*	*1*
KS012	*Senecio*	*triangularis*	*1*
KS012	*Caltha*	*leptosepala*	*5*
KS012	*Sanguisorba*	*canadensis*	*2*
KS012	*Veratrum*	*viride*	*1*
KS012	*Comarum*	*palustre*	*1*
KS012	*Valeriana*	*sitchensis*	*0.5*
KS012	*Erigeron*	*sp*	*0.5*
KS012	*Sphagnum*	*sp*	*30*
KS012	*Carex*	*sitchensis*	*20*
KS012	*Moss*	*sp*	*30*
KS013	*Salix*	*barclayi*	*6*
KS013	*Salix*	*barclayi*	*6*
KS013	*Salix*	*barclayi*	*6*
KS013	*Salix*	*barclayi*	*6*
KS013	*Eriophorum*	*angustifolium*	*10*
KS013	*Viola*	*sp*	*1*
KS013	*Leptarrhena*	*pyrolifolia*	*2*
KS013	*Sanguisorba*	*canadensis*	*1*
KS013	*Carex*	*aquatilis*	*30*
KS013	*Valeriana*	*sitchensis*	*2*
KS013	*Veratrum*	*viride*	*2*
KS013	*Erigeron*	*sp*	*0.5*
KS013	*Grass*	*sp*	*2*
KS013	*Senecio*	*triangularis*	*1*
KS013	*Equisetum*	*arvense*	*1*
KS013	*Caltha*	*leptosepala*	*5*
KS013	*Lycopodum*	*sp*	*0.5*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS013	*Aulacommium*	*palustre*	*20*
KS013	*Sphagnum*	*sp*	*20*
KS013	*Juncus*	*sp*	*0.5*
KS013	*Carex*	*sitchensis*	*20*
KS013	*Rubus*	*arcticus*	*2*
KS014	*Salix*	*barclayi*	*1*
KS014	*Eriophorum*	*angustifolium*	*60*
KS014	*Caltha*	*leptosepala*	*15*
KS014	*Sanguisorba*	*canadensis*	*2*
KS014	*Leptarrhena*	*pyrolifolia*	*2*
KS014	*Nuphar*	*variegatum*	*40*
KS014	*Carex*	*sp*	*10*
KS014	*Equisetum*	*arvense*	*1*
KS014	*Erigeron*	*sp*	*1*
KS014	*Aulacommium*	*palustre*	*15*
KS015	*Salix*	*sp*	*5*
KS015	*Salix*	*commutata*	*15*
KS015	*Salix*	*barclayi*	*20*
KS015	*Sanguisorba*	*canadensis*	*1*
KS015	*Leptarrhena*	*pyrolifolia*	*5*
KS015	*Carex*	*sitchensis*	*40*
KS015	*Eriophorum*	*angustifolium*	*15*
KS015	*Equisetum*	*arvense*	*2*
KS015	*Viola*	*sp*	*0.5*
KS015	*Carex*	*aquatilis*	*30*
KS015	*Trientalis*	*arctica*	*1*
KS015	*Platanthera*	*dilatata*	*0.5*
KS015	*Senecio*	*triangularis*	*0.5*
KS015	*Parnassia*	*fimbriata*	*0.5*
KS015	*Caltha*	*leptosepala*	*1*
KS015	*Mnium*	*sp*	*5*
KS015	*Aulacommium*	*palustre*	*10*
KS015	*Moss*	*sp*	*5*
KS016	*Salix*	*commutata*	*20*
KS016	*Salix*	*barclayi*	*20*
KS016	*Abies*	*lasiocarpa*	*2*
KS016	*Eriophorum*	*angustifolium*	*50*
KS016	*Equisetum*	*arvense*	*5*
KS016	*Leptarrhena*	*pyrolifolia*	*5*
KS016	*Viola*	*sp*	*1*
KS016	*Platanthera*	*dilatata*	*0.5*
KS016	*Valeriana*	*sitchensis*	*0.5*
KS016	*Sanguisorba*	*canadensis*	*0.5*
KS016	*Carex*	*aquatilis*	*20*
KS016	*Trientalis*	*arctica*	*1*
KS016	*Senecio*	*triangularis*	*0.5*
KS016	*Sphagnum*	*sp*	*10*
KS016	*Moss*	*sp*	*15*
KS017	*Salix*	*commutata*	*10*
KS017	*Salix*	*barclayi*	*20*
KS017	*Salix*	*sp*	*10*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS017	*Eriophorum*	*angustifolium*	*50*
KS017	*Caltha*	*leptosepala*	*5*
KS017	*Trientalis*	*arctica*	*1*
KS017	*Viola*	*sp*	*0.5*
KS017	*Calamagrostis*	*canadensis*	*2*
KS017	*Carex*	*utriculata*	*10*
KS017	*Sanguisorba*	*canadensis*	*2*
KS017	*Equisetum*	*arvense*	*2*
KS017	*Leptarrhena*	*pyrolifolia*	*2*
KS017	*Juncus*	*sp*	*2*
KS017	*Comarum*	*palustre*	*2*
KS017	*Carex*	*sp*	*2*
KS017	*Sphagnum*	*sp*	*40*
KS017	*Aulacommium*	*palustre*	*10*
KS017	*Moss*	*sp*	*5*
KS018	*Salix*	*barclayi*	*20*
KS018	*Salix*	*commutata*	*20*
KS018	*Eriophorum*	*angustifolium*	*30*
KS018	*Carex*	*sitchensis*	*20*
KS018	*Caltha*	*leptosepala*	*15*
KS018	*Leptarrhena*	*pyrolifolia*	*5*
KS018	*Platanthera*	*dilatata*	*0.5*
KS018	*Comarum*	*palustre*	*5*
KS018	*Carex*	*limosa*	*10*
KS018	*Carex*	*sp*	*5*
KS018	*Erigeron*	*sp*	*0.5*
KS018	*Sphagnum*	*sp*	*20*
KS018	*Polytricum*	*sp*	*1*
KS018	*Moss*	*sp*	*20*
KS019	*Salix*	*barclayi*	*5*
KS019	*Carex*	*aquatilis*	*60*
KS019	*Equisetum*	*arvense*	*5*
KS019	*Carex*	*sitchensis*	*20*
KS019	*Epilobium*	*sp*	*0.5*
KS019	*Aulacommium*	*palustre*	*30*
KS019	*Pleurozium*	*schreberi*	*5*
KS019	*Sphagnum*	*sp*	*10*
KS020	*Salix*	*barclayi*	*5*
KS020	*Carex*	*aquatilis*	*55*
KS020	*Veratrum*	*viride*	*1*
KS020	*Comarum*	*palustre*	*5*
KS020	*Eriophorum*	*angustifolium*	*15*
KS020	*Rubus*	*arcticus*	*0.5*
KS020	*Viola*	*sp*	*0.5*
KS020	*Valeriana*	*sitchensis*	*0.5*
KS020	*Erigeron*	*sp*	*0.5*
KS020	*Caltha*	*leptosepala*	*1*
KS020	*Carex*	*sitchensis*	*15*
KS020	*Senecio*	*triangularis*	*1*
KS020	*Sphagnum*	*sp*	*40*
KS020	*Moss*	*sp*	*10*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS021	*Salix*	*barclayi*	*5*
KS021	*Equisetum*	*arvense*	*0.5*
KS021	*Eriophorum*	*angustifolium*	*75*
KS021	*Caltha*	*leptosepala*	*0.5*
KS023	*Salix*	*sp*	*0.5*
KS023	*Caltha*	*leptosepala*	*5*
KS023	*Eriophorum*	*angustifolium*	*30*
KS023	*Equisetum*	*arvense*	*1*
KS023	*Leptarrhena*	*pyrolifolia*	*5*
KS023	*Valeriana*	*dioica*	*1*
KS023	*Senecio*	*triangularis*	*3*
KS023	*Dryopteris*	*expansa*	*2*
KS023	*Veratrum*	*viride*	*2*
KS023	*Sphagnum*	*sp*	*3*
KS023	*Aulacommium*	*palustre*	*2*
KS024	*Eriophorum*	*angustifolium*	*70*
KS024	*Equisetum*	*arvense*	*0.5*
KS024	*Sphagnum*	*sp*	*50*
KS025	*Eriophorum*	*angustifolium*	*75*
KS025	*Equisetum*	*arvense*	*0.5*
KS025	*Leptarrhena*	*pyrolifolia*	*0.5*
KS026	*Carex*	*aquatilis*	*35*
KS026	*Lysichiton*	*americanum*	*10*
KS026	*Dryopteris*	*expansa*	*20*
KS026	*Viola*	*adunca*	*5*
KS026	*Leptarrhena*	*pyrolifolia*	*5*
KS026	*Coeloglossum*	*viride*	*0.5*
KS026	*Valeriana*	*sitchensis*	*5*
KS026	*Sphagnum*	*sp*	*10*
KS026	*Aulacommium*	*palustre*	*20*
KS027	*Oplopanax*	*horridus*	*2*
KS027	*Lysichiton*	*americanum*	*30*
KS027	*Dryopteris*	*expansa*	*40*
KS027	*Viola*	*glabella*	*1*
KS027	*Viola*	*adunca*	*0.5*
KS027	*Streptopus*	*amplexifolius*	*2*
KS027	*Streptopus*	*streptopoides*	*1*
KS027	*Senecio*	*triangularis*	*0.5*
KS027	*Aulacommium*	*palustre*	*50*
KS028	*Lysichiton*	*americanum*	*20*
KS028	*Dryopteris*	*expansa*	*60*
KS028	*Streptopus*	*amplexifolius*	*5*
KS028	*Senecio*	*triangularis*	*1*
KS028	*Viola*	*glabella*	*2*
KS028	*Tiarella*	*trifoliata*	*0.5*
KS028	*Viola*	*adunca*	*1*
KS028	*Equisetum*	*arvense*	*1*
KS028	*Aulacommium*	*palustre*	*40*
KS028	*Mnium*	*sp*	*40*
KS029	*Carex*	*aquatilis*	*30*
KS029	*Equisetum*	*fluviatile*	*30*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS029	*Equisetum*	*arvense*	*5*
KS029	*Lysichiton*	*americanum*	*1*
KS029	*Scirpus*	*microcarpus*	*0.5*
KS030	*Tsuga*	*heterophylla*	*2*
KS030	*Picea*	*sp*	*8*
KS030	*Ribes*	*hadsonianum*	*2*
KS030	*Oplopanax*	*horridus*	*5*
KS030	*Cornus*	*stolonifera*	*2*
KS030	*Lysichiton*	*americanum*	*15*
KS030	*Dryopteris*	*expansa*	*10*
KS030	*Streptopus*	*amplexifolius*	*1*
KS030	*Coeloglossum*	*viride*	*1*
KS030	*Gymnocarpium*	*dryopteris*	*1*
KS030	*Viola*	*palustris*	*1*
KS030	*Comarum*	*palustre*	*1*
KS030	*Equisetum*	*arvense*	*0.5*
KS030	*Cornus*	*canadensis*	*1*
KS030	*Mnium*	*sp*	*15*
KS030	*Sphagnum*	*sp*	*25*
KS031	*Tsuga*	*heterophylla*	*5*
KS031	*Picea*	*sp*	*2*
KS031	*Oplopanax*	*horridus*	*2*
KS031	*Menziesia*	*ferruginea*	*1*
KS031	*Rubus*	*spectabilis*	*1*
KS031	*Vaccinium*	*ovalifolium*	*4*
KS031	*Tsuga*	*heterophylla*	*2*
KS031	*Lysichiton*	*americanum*	*20*
KS031	*Dryopteris*	*expansa*	*10*
KS031	*Gymnocarpium*	*dryopteris*	*1*
KS031	*Viola*	*palustris*	*1*
KS031	*Streptopus*	*amplexifolius*	*2*
KS031	*Streptopus*	*streptopoides*	*0.5*
KS031	*Tiarella*	*trifoliata*	*2*
KS031	*Cornus*	*canadensis*	*2*
KS031	*Mnium*	*sp*	*5*
KS031	*Aulacommium*	*palustre*	*2*
KS031	*Sphagnum*	*sp*	*5*
KS032	*Tsuga*	*heterophylla*	*5*
KS032	*Ribes*	*hudsonianum*	*2*
KS032	*Oplopanax*	*horridus*	*3*
KS032	*Lysichiton*	*americanum*	*20*
KS032	*Dryopteris*	*expansa*	*40*
KS032	*Viola*	*palustris*	*5*
KS032	*Streptopus*	*amplexifolius*	*10*
KS032	*Mnium*	*sp*	*20*
KS032	*Aulacommium*	*palustre*	*5*
KS033	*Tsuga*	*heterophylla*	*5*
KS033	*Oplopanax*	*horridus*	*5*
KS033	*Lysichiton*	*americanum*	*20*
KS033	*Dryopteris*	*expansa*	*50*
KS033	*Viola*	*palustris*	*2*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS033	*Streptopus*	*amplexifolius*	*5*
KS033	*Mnium*	*sp*	*10*
KS033	*Aulacommium*	*palustre*	*2*
KS034	*Picea*	*sp*	*3*
KS034	*Tsuga*	*heterophylla*	*2*
KS034	*Salix*	*sitchensis*	*0.5*
KS034	*Equisetum*	*fluviatile*	*10*
KS034	*Comarum*	*palustre*	*10*
KS034	*Menyanthes*	*trifoliata*	*20*
KS034	*Epilobium*	*angustifolium*	*10*
KS034	*Galium*	*triflorum*	*1*
KS034	*Angelica*	*genuflexa*	*0.5*
KS034	*Carex*	*sp*	*10*
KS034	*Carex*	*aquatilis*	*10*
KS034	*Poa*	*arctica*	*10*
KS034	*Scirpus*	*microcarpus*	*1*
KS034	*Brachythecium*	*sp*	*40*
KS035	*Salix*	*sitchensis*	*15*
KS035	*Salix*	*pyrifolia*	*0.5*
KS035	*Alnus*	*crispa*	*0.5*
KS035	*Equisetum*	*fluviatile*	*10*
KS035	*Menyanthes*	*trifoliata*	*10*
KS035	*Comarum*	*palustre*	*30*
KS035	*Carex*	*aquatilis*	*50*
KS035	*Platanthera*	*dilatata*	*0.5*
KS035	*Lysichiton*	*americanum*	*0.5*
KS035	*Angelica*	*genuflexa*	*0.5*
KS035	*Scirpus*	*microcarpus*	*0.5*
KS036	*Salix*	*arbussculoides*	*20*
KS036	*Salix*	*commutata*	*10*
KS036	*Carex*	*aquatilis*	*50*
KS036	*Equisetum*	*arvense*	*0.5*
KS036	*Aulacommium*	*palustre*	*35*
KS036	*Mnium*	*sp*	*5*
KS037	*Salix*	*barclayi*	*15*
KS037	*Salix*	*arbussculoides*	*25*
KS037	*Carex*	*aquatilis*	*50*
KS038	*Eriophorum*	*angustifolium*	*30*
KS038	*Carex*	*aquatilis*	*0.5*
KS038	*Coeloglossum*	*viride*	*0.5*
KS038	*Comarum*	*palustre*	*0.5*
KS038	*Scouleria*	*aquatica*	*90*
KS039	*Salix*	*barclayi*	*50*
KS039	*Salix*	*arbussculoides*	*25*
KS039	*Carex*	*aquatilis*	*30*
KS039	*Senecio*	*triangularis*	*2*
KS039	*Urtica*	*dioica*	*0.5*
KS039	*Heracleum*	*lanatum*	*0.5*
KS039	*Equisetum*	*arvense*	*0.5*
KS039	*Aulacommium*	*palustre*	*20*
KS040	*Salix*	*barclayi*	*5*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS040	*Carex*	*aquatilis*	*25*
KS040	*Eriophorum*	*angustifolium*	*25*
KS040	*Equisetum*	*arvense*	*0.5*
KS040	*Viola*	*palustris*	*1*
KS040	*Comarum*	*palustre*	*1*
KS040	*Aulacommium*	*palustre*	*85*
KS040	*Mnium*	*sp*	*5*
KS040	*Scouleria*	*aquatica*	*85*
KS041	*Salix*	*barclayi*	*80*
KS041	*Cicuta*	*douglasii*	*0.5*
KS041	*Carex*	*aquatilis*	*15*
KS041	*Senecio*	*triangularis*	*2*
KS041	*Epilobium*	*ciliatum*	*2*
KS041	*Equisetum*	*arvense*	*0.5*
KS041	*Viola*	*palustris*	*0.5*
KS041	*Aulacommium*	*palustre*	-
KS042	*Abies*	*lasiocarpa*	*1*
KS042	*Salix*	*barclayi*	*20*
KS042	*Senecio*	*triangularis*	*10*
KS042	*Epilobium*	*ciliatum*	*2*
KS042	*Carex*	*aquatilis*	*20*
KS042	*Sanguisorba*	*canadensis*	*2*
KS042	*Veratrum*	*viride*	*0.5*
KS042	*Mitella*	*pentandra*	*0.5*
KS042	*Equisetum*	*arvense*	*2*
KS042	*Trientalis*	*arcticus*	*0.5*
KS042	*Carex*	*utriculata*	*10*
KS042	*Heracleum*	*lanatum*	*0.5*
KS042	*Aulacommium*	*palustre*	*20*
KS042	*Drepanocladus*	*sp*	*2*
KS043	*Eriophorum*	*angustifolium*	*45*
KS043	*Caltha*	*leptosepala*	*5*
KS043	*Sphagnum*	*sp*	*80*
KS044	*Eriophorum*	*angustifolium*	*20*
KS044	*Caltha*	*leptosepala*	*10*
KS044	*Equisetum*	*arvense*	*1*
KS044	*Veratrum*	*viride*	*0.5*
KS044	*Sphagnum*	*sp*	*90*
KS045	*Eriophorum*	*angustifolium*	*30*
KS045	*Caltha*	*leptosepala*	*5*
KS045	*Leptarrhena*	*pyrolifolia*	*2*
KS045	*Equisetum*	*arvense*	*1*
KS045	*Angelica*	*genuflexa*	*2*
KS045	*Senecio*	*triangularis*	*0.5*
KS045	*Sphagnum*	*sp*	*80*
KS046	*Abies*	*lasiocarpa*	*3*
KS046	*Tsuga*	*heterophylla*	*2*
KS046	*Eriophorum*	*angustifolium*	*30*
KS046	*Equisetum*	*arvense*	*1*
KS046	*Caltha*	*leptosepala*	*5*
KS046	*Senecio*	*triangularis*	*1*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS046	*Veratrum*	*viride*	*0.5*
KS046	*Sanguisorba*	*canadensis*	*0.5*
KS046	*Viola*	*palustris*	*0.5*
KS046	*Carex*	*nigricans*	*10*
KS046	*Scouleria*	*aquatica*	*10*
KS046	*Sphagnum*	*sp*	*70*
KS047	*Abies*	*lasiocarpa*	*1*
KS047	*Veratrum*	*viride*	*0.5*
KS047	*Viola*	*palustris*	*0.5*
KS047	*Eriophorum*	*angustifolium*	*30*
KS047	*Caltha*	*leptosepala*	*5*
KS047	*Dryopteris*	*expansa*	*0.1*
KS047	*Sphagnum*	*sp*	*10*
KS048	*Alnus*	*crispa*	*3*
KS048	*Salix*	*bebbiana*	*2*
KS048	*Eriophorum*	*angustifolium*	*25*
KS048	*Caltha*	*leptosepala*	*10*
KS048	*Viola*	*palustris*	*1*
KS048	*Veratrum*	*viride*	*2*
KS048	*Carex*	*nigricans*	*0.5*
KS048	*Sanguisorba*	*canadensis*	*2*
KS048	*Leptarrhena*	*pyrolifolia*	*0.5*
KS048	*Dryopteris*	*expansa*	*2*
KS048	*Senecio*	*triangularis*	*1*
KS048	*Coeloglossum*	*viride*	*0.5*
KS048	*Equisetum*	*arvense*	*0.5*
KS048	*Sphagnum*	*sp*	*5*
KS048	*Drepanocladus*	*sp*	*20*
KS049	*Salix*	*bebbiana*	*5*
KS049	*Carex*	*aquatilis*	*30*
KS049	*Eriophorum*	*angustifolium*	*10*
KS049	*Equisetum*	*arvense*	*0.5*
KS049	*Coeloglossum*	*viride*	*0.5*
KS049	*Viola*	*palustris*	*0.5*
KS049	*Sanguisorba*	*canadensis*	*0.5*
KS049	*Leptarrhena*	*pyrolifolia*	*0.5*
KS049	*Carex*	*nigricans*	*0.5*
KS049	*Sphagnum*	*sp*	*50*
KS049	*Drepanocladus*	*sp*	*5*
KS049	*Aulacommium*	*palustre*	*10*
KS050	*Salix*	*bebbiana*	*0.5*
KS050	*Carex*	*aquatilis*	*25*
KS050	*Eriophorum*	*angustifolium*	*15*
KS050	*Equisetum*	*arvense*	*0.5*
KS050	*Comarum*	*palustre*	*0.5*
KS050	*Caltha*	*leptosepala*	*0.5*
KS050	*Leptarrhena*	*pyrolifolia*	*0.5*
KS050	*Aulacommium*	*palustre*	*0.5*
KS051	*Salix*	*bebbiana*	*2*
KS051	*Eriophorum*	*angustifolium*	*30*
KS051	*Carex*	*aquatilis*	*20*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS051	*Equisetum*	*arvense*	*0.5*
KS051	*Caltha*	*leptosepala*	*2*
KS051	*Leptarrhena*	*pyrolifolia*	*0.5*
KS051	*Viola*	*palustris*	*0.5*
KS051	*Sphagnum*	*sp*	*75*
KS051	*Aulacommium*	*palustre*	*5*
KS052	*Salix*	*bebbiana*	*5*
KS052	*Carex*	*aquatilis*	*20*
KS052	*Eriophorum*	*angustifolium*	*20*
KS052	*Sanguisorba*	*canadensis*	*0.5*
KS052	*Caltha*	*leptosepala*	*2*
KS052	*Leptarrhena*	*pyrolifolia*	*2*
KS052	*Equisetum*	*arvense*	*0.5*
KS052	*Coeloglossum*	*viride*	*0.5*
KS052	*Sphagnum*	*sp*	*60*
KS053	*Salix*	*drummondiana*	*20*
KS053	*Salix*	*barclayi*	*10*
KS053	*Eriophorum*	*angustifolium*	*10*
KS053	*Carex*	*aquatilis*	*25*
KS053	*Leptarrhena*	*pyrolifolia*	*5*
KS053	*Equisetum*	*arvense*	*0.5*
KS053	*Sanguisorba*	*canadensis*	*2*
KS053	*Viola*	*palustris*	*0.5*
KS053	*Carex*	*sp*	*5*
KS053	*Trientalis*	*europaea*	*0.5*
KS053	*Mnium*	*sp*	*10*
KS053	*Aulacommium*	*palustre*	*10*
KS053	*Drepanocladus*	*sp*	*20*
KS054	*Salix*	*barclayi*	*10*
KS054	*Alnus*	*crispa*	*5*
KS054	*Carex*	*aquatilis*	*25*
KS054	*Carex*	*sp*	*5*
KS054	*Eriophorum*	*angustifolium*	*5*
KS054	*Equisetum*	*arvense*	*1*
KS054	*Leptarrhena*	*pyrolifolia*	*2*
KS054	*Coeloglossum*	*viride*	*0.5*
KS054	*Dryopteris*	*expansa*	*0.5*
KS054	*Senecio*	*triangularis*	*0.5*
KS054	*Sphagnum*	*sp*	*90*
KS054	*Aulacommium*	*palustre*	*10*
KS055	*Kalmia*	*microphylla*	*0.5*
KS055	*Carex*	*aquatilis*	*20*
KS055	*Leptarrhena*	*pyrolifolia*	*10*
KS055	*Equisetum*	*arvense*	*0.5*
KS055	*Eriophorum*	*angustifolium*	*5*
KS055	*Carex*	*sp*	*2*
KS055	*Sphagnum*	*sp*	*90*
KS055	*Aulacommium*	*palustre*	*5*
KS056	*Tsuga*	*heterophylla*	*50*
KS056	*Abies*	*lasiocarpa*	*25*
KS056	*Vaccinium*	*ovalifolium*	*5*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS056	*Equisetum*	*arvense*	*2*
KS056	*Veratrum*	*viride*	*2*
KS056	*Gymnocarpium*	*dryopteris*	*1*
KS056	*Petasites*	*frigidus*	*0.5*
KS056	*Sphagnum*	*sp*	*90*
KS057	*Abies*	*lasiocarpa*	*2*
KS057	*Tsuga*	*heterophylla*	*3*
KS057	*Alnus*	*crispa*	*10*
KS057	*Vaccinium*	*ovalifolium*	*0.5*
KS057	*Equisetum*	*arvense*	*1*
KS057	*Carex*	*aquatilis*	*15*
KS057	*Caltha*	*leptosepala*	*2*
KS057	*Leptarrhena*	*pyrolifolia*	*5*
KS057	*Sanguisorba*	*canadensis*	*2*
KS057	*Coeloglossum*	*viride*	*0.5*
KS057	*Sphagnum*	*sp*	*90*
KS058	*Salix*	*barclayi*	*5*
KS058	*Salix*	*barrattiana*	*10*
KS058	*Carex*	*aquatilis*	*20*
KS058	*Eriophorum*	*angustifolium*	*20*
KS058	*Equisetum*	*arvense*	*1*
KS058	*Leptarrhena*	*pyrolifolia*	*3*
KS058	*Trientalis*	*arctica*	*0.5*
KS058	*Coeloglossum*	*viride*	*0.5*
KS058	*Viola*	*palustris*	*0.5*
KS058	*Sphagnum*	*sp*	*60*
KS058	*Drepanocladus*	*sp*	*30*
KS059	*Salix*	*barclayi*	*15*
KS059	*Salix*	*barrattiana*	*75*
KS059	*Rubus*	*spectabilis*	*0.5*
KS059	*Carex*	*aquatilis*	*30*
KS059	*Trientalis*	*arctica*	*0.5*
KS059	*Sanguisorba*	*canadensis*	*2*
KS059	*Equisetum*	*arvense*	*0.5*
KS059	*Angelica*	*genuflexa*	*0.5*
KS059	*Leptarrhena*	*pyrolifolia*	*0.5*
KS059	*Sphagnum*	*sp*	*85*
KS060	*Salix*	*barrattiana*	*15*
KS060	*Salix*	*barclayi*	*10*
KS060	*Eriophorum*	*angustifolium*	*25*
KS060	*Carex*	*aquatilis*	*10*
KS060	*Equisetum*	*arvense*	*5*
KS060	*Platanthera*	*dilatata*	*0.5*
KS060	*Sanguisorba*	*canadensis*	*5*
KS060	*Carex*	*podocarpa*	*5*
KS060	*Viola*	*palustris*	*0.5*
KS060	*Sphagnum*	*sp*	*5*
KS060	*Aulacommium*	*palustre*	*45*
KS061	*Salix*	*barclayi*	*5*
KS061	*Salix*	*barrattiana*	*10*
KS061	*Eriophorum*	*angustifolium*	*30*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS061	*Carex*	*sp*	*25*
KS061	*Sanguisorba*	*canadensis*	*0.5*
KS061	*Viola*	*palustris*	*0.5*
KS061	*Leptarrhena*	*pyrolifolia*	*0.5*
KS061	*Equisetum*	*arvense*	*0.5*
KS061	*Trientalis*	*arctica*	*0.5*
KS061	*Coeloglossum*	*viride*	*1*
KS061	*Platanthera*	*dilatata*	*0.5*
KS061	*Aulacommium*	*palustre*	*5*
KS062	*Vaccinium*	*ovalifolium*	*5*
KS062	*Eriophorum*	*angustifolium*	*25*
KS062	*Veratrum*	*viride*	*2*
KS062	*Caltha*	*leptosepala*	*2*
KS062	*Coeloglossum*	*viride*	*1*
KS062	*Carex*	*sp*	*5*
KS062	*Equisetum*	*arvense*	*0.5*
KS062	*Castilleja*	*parviflora*	*0.5*
KS062	*Aulacommium*	*palustre*	*10*
KS063	*Salix*	*barclayi*	*5*
KS063	*Eriophorum*	*angustifolium*	*15*
KS063	*Carex*	*sp*	*10*
KS063	*Caltha*	*leptosepala*	*5*
KS063	*Leptarrhena*	*pyrolifolia*	*2*
KS063	*Viola*	*palustris*	*1*
KS063	*Sanguisorba*	*canadensis*	*2*
KS063	*Carex*	*aquatilis*	*15*
KS063	*Sphagnum*	*sp*	*40*
KS064	*Kalmia*	*microphylla*	*0.5*
KS064	*Salix*	*barclayi*	*2*
KS064	*Vaccinium*	*ovalifolium*	*0.5*
KS064	*Eriophorum*	*angustifolium*	*25*
KS064	*Caltha*	*leptosepala*	*5*
KS064	*Carex*	*aquatilis*	*35*
KS064	*Leptarrhena*	*pyrolifolia*	*3*
KS064	*Equisetum*	*arvense*	*0.5*
KS064	*Viola*	*palustris*	*1*
KS064	*Sanguisorba*	*canadensis*	*2*
KS064	*Veratrum*	*viride*	*0.5*
KS064	*Valeriana*	*sitchensis*	*0.5*
KS064	*Coeloglossum*	*viride*	*0.5*
KS064	*Castilleja*	*parviflora*	*0.5*
KS064	*Sphagnum*	*sp*	*40*
KS065	*Eriophorum*	*angustifolium*	*5*
KS065	*Caltha*	*leptosepala*	*5*
KS065	*Carex*	*sp*	*10*
KS065	*Viola*	*palustris*	*3*
KS065	*Sanguisorba*	*canadensis*	*3*
KS065	*Senecio*	*triangularis*	*2*
KS065	*Fragaria*	*vesca*	*2*
KS065	*Sphagnum*	*sp*	*20*
KS066	*Salix*	*arbussculoides*	*2*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS066	*Eriophorum*	*angustifolium*	*20*
KS066	*Caltha*	*leptosepala*	*5*
KS066	*Sanguisorba*	*canadensis*	*2*
KS066	*Carex*	*sp*	*20*
KS066	*Equisetum*	*arvense*	*1*
KS066	*Viola*	*palustris*	*1*
KS066	*Leptarrhena*	*pyrolifolia*	*1*
KS066	*Sphagnum*	*sp*	*15*
KS066	*Aulacommium*	*palustre*	*5*
KS067	*Salix*	*arbussculoides*	*5*
KS067	*Eriophorum*	*angustifolium*	*15*
KS067	*Carex*	*sp*	*20*
KS067	*Sanguisorba*	*canadensis*	*2*
KS067	*Caltha*	*leptosepala*	*0.5*
KS067	*Viola*	*palustris*	*0.5*
KS067	*Coeloglossum*	*viride*	*1*
KS067	*Veratrum*	*viride*	*1*
KS067	*Valeriana*	*sitchensis*	*0.5*
KS067	*Equisetum*	*arvense*	*0.5*
KS067	*Carex*	*aquatilis*	*3*
KS067	*Fauria*	*crista-galli*	*2*
KS067	*Sphagnum*	*sp*	*1*
KS068	*Salix*	*planifolia*	*5*
KS068	*Carex*	*aquatilis*	*25*
KS068	*Fauria*	*crista-galli*	*10*
KS068	*Caltha*	*leptosepala*	*5*
KS068	*Sanguisorba*	*canadensis*	*2*
KS068	*Veratrum*	*viride*	*0.5*
KS068	*Leptarrhena*	*pyrolifolia*	*0.5*
KS068	*Senecio*	*triangularis*	*0.5*
KS068	*Viola*	*palustris*	*0.5*
KS068	*Ranunculus*	*eschscholtzii*	*0.5*
KS068	*Sphagnum*	*sp*	*90*
KS069	*Carex*	*aquatilis*	*10*
KS069	*Eriophorum*	*angustifolium*	*20*
KS069	*Caltha*	*leptosepala*	*5*
KS069	*Sanguisorba*	*canadensis*	*2*
KS069	*Viola*	*palustris*	*0.5*
KS069	*Carex*	*sp*	*3*
KS069	*Leptarrhena*	*pyrolifolia*	*1*
KS069	*Sphagnum*	*sp*	*10*
KS070	*Eriophorum*	*angustifolium*	*25*
KS070	*Leptarrhena*	*pyrolifolia*	*3*
KS070	*Fauria*	*crista-galli*	*5*
KS070	*Viola*	*palustris*	*1*
KS070	*Carex*	*aquatilis*	*5*
KS070	*Veratrum*	*viride*	*2*
KS070	*Coeloglossum*	*viride*	*1*
KS070	*Sanguisorba*	*canadensis*	*2*
KS070	*Dryopteris*	*expansa*	*1*
KS070	*Carex*	*sp*	*10*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS070	*Sphagnum*	*sp*	*10*
KS071	*Vaccinium*	*membranaceum*	*1*
KS071	*Carex*	*aquatilis*	*25*
KS071	*Viola*	*palustris*	*3*
KS071	*Veratrum*	*viride*	*1*
KS071	*Leptarrhena*	*pyrolifolia*	*2*
KS071	*Eriophorum*	*angustifolium*	*2*
KS071	*Carex*	*sp*	*2*
KS071	*Coeloglossum*	*viride*	*0.5*
KS071	*Sphagnum*	*sp*	*15*
KS071	*Aulacommium*	*palustre*	*2*
KS072	*Abies*	*lasiocarpa*	*0.5*
KS072	*Salix*	*barclayi*	*5*
KS072	*Eriophorum*	*angustifolium*	*20*
KS072	*Equisetum*	*arvense*	*15*
KS072	*Carex*	*aquatilis*	*0.5*
KS072	*Sanguisorba*	*canadensis*	*0.5*
KS072	*Senecio*	*triangularis*	*0.5*
KS072	*Caltha*	*leptosepala*	*0.5*
KS072	*Leptarrhena*	*pyrolifolia*	*0.5*
KS072	*Drepanocladus*	*sp*	*40*
KS072	*Sphagnum*	*sp*	*5*
KS073	*Kalmia*	*microphylla*	*1*
KS073	*Vaccinium*	*membranaceum*	*1*
KS073	*Carex*	*aquatilis*	*20*
KS073	*Sanguisorba*	*canadensis*	*10*
KS073	*Veratrum*	*viride*	*5*
KS073	*Fauria*	*crista-galli*	*10*
KS073	*Eriophorum*	*angustifolium*	*1*
KS073	*Coeloglossum*	*viride*	*0.5*
KS073	*Viola*	*palustris*	*1*
KS073	*Caltha*	*leptosepala*	*0.5*
KS073	*Carex*	*sp*	*20*
KS073	*Leptarrhena*	*pyrolifolia*	*2*
KS073	*Lycopodum*	*alpinum*	*0.5*
KS073	*Sphagnum*	*sp*	*80*
KS073	*Moss*	*sp*	*5*
KS074	*Eriophorum*	*angustifolium*	*20*
KS074	*Carex*	*sp*	*25*
KS074	*Carex*	*aquatilis*	*10*
KS074	*Caltha*	*leptosepala*	*0.5*
KS074	*Equisetum*	*arvense*	*0.5*
KS074	*Sphagnum*	*sp*	*50*
KS075	*Kalmia*	*microphylla*	*0.5*
KS075	*Carex*	*aquatilis*	*20*
KS075	*Eriophorum*	*angustifolium*	*10*
KS075	*Caltha*	*leptosepala*	*0.5*
KS075	*Carex*	*sp*	*15*
KS075	*Comarum*	*palustre*	*0.5*
KS075	*Sphagnum*	*sp*	*30*
KS076	*Nuphar*	*variegatum*	*-*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS077	*Alnus*	*crispa*	*5*
KS077	*Salix*	*commutata*	*10*
KS077	*Eriophorum*	*angustifolium*	*25*
KS077	*Equisetum*	*arvense*	*5*
KS077	*Carex*	*sp*	*25*
KS077	*Caltha*	*leptosepala*	*1*
KS077	*Coeloglossum*	*viride*	*0.5*
KS077	*Leptarrhena*	*pyrolifolia*	*0.5*
KS077	*Trientalis*	*europaea*	*0.5*
KS077	*Viola*	*palustris*	*0.5*
KS077	*Sphagnum*	*sp*	*50*
KS078	*Kalmia*	*microphylla*	*3*
KS078	*Eriophorum*	*angustifolium*	*2*
KS078	*Carex*	*sp*	*10*
KS078	*Carex*	*aquatilis*	*10*
KS078	*Sphagnum*	*sp*	*5*
KS079	*Salix*	*barrattiana*	*15*
KS079	*Salix*	*planifolia*	*10*
KS079	*Alnus*	*crispa*	*1*
KS079	*Carex*	*aquatilis*	*25*
KS079	*Eriophorum*	*angustifolium*	*2*
KS079	*Sanguisorba*	*canadensis*	*2*
KS079	*Coeloglossum*	*viride*	*1*
KS079	*Carex*	*sp*	*10*
KS079	*Valeriana*	*sitchensis*	*1*
KS079	*Equisetum*	*arvense*	*0.5*
KS079	*Platanthera*	*dilatata*	*0.5*
KS079	*Leptarrhena*	*pyrolifolia*	*2*
KS079	*Epilobium*	*angustifolium*	*0.5*
KS079	*Sphagnum*	*sp*	*15*
KS079	*Drepanocladus*	*sp*	*65*
KS080	*Abies*	*lasiocarpa*	*10*
KS080	*Salix*	*barrattiana*	*10*
KS080	*Alnus*	*crispa*	*2*
KS080	*Vaccinium*	*ovalifolium*	*1*
KS080	*Salix*	*planifolia*	*2*
KS080	*Oplopanax*	*horridus*	*0.5*
KS080	*Equisetum*	*arvense*	*30*
KS080	*Veratrum*	*viride*	*2*
KS080	*Dryopteris*	*expansa*	*10*
KS080	*Caltha*	*leptosepala*	*5*
KS080	*Viola*	*glabella*	*3*
KS080	*Sanguisorba*	*canadensis*	*2*
KS080	*Coeloglossum*	*viride*	*0.5*
KS080	*Valeriana*	*dioica*	*2*
KS080	*Mnium*	*sp*	*15*
KS080	*Aulacommium*	*palustre*	*75*
KS081	*Abies*	*lasiocarpa*	*5*
KS081	*Tsuga*	*heterophylla*	*2*
KS081	*Alnus*	*crispa*	*10*
KS081	*Salix*	*planifolia*	*10*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS081	*Salix*	*commutata*	*15*
KS081	*Carex*	*aquatilis*	*20*
KS081	*Sanguisorba*	*canadensis*	*2*
KS081	*Equisetum*	*arvense*	*2*
KS081	*Leptarrhena*	*pyrolifolia*	*2*
KS081	*Carex*	*sp*	*10*
KS081	*Coeloglossum*	*viride*	*0.5*
KS081	*Eriophorum*	*angustifolium*	*1*
KS081	*Viola*	*palustris*	*0.5*
KS081	*Valeriana*	*sitchensis*	*0.5*
KS081	*Platanthera*	*dilatata*	*0.5*
KS081	*Drepanocladus*	*sp*	*40*
KS081	*Mnium*	*sp*	*5*
KS081	*Sphagnum*	*sp*	*40*
KS082	*Tsuga*	*heterophylla*	*1*
KS082	*Salix*	*barclayi*	*10*
KS082	*Alnus*	*crispa*	*5*
KS082	*Carex*	*aquatilis*	*25*
KS082	*Eriophorum*	*angustifolium*	*5*
KS082	*Leptarrhena*	*pyrolifolia*	*5*
KS082	*Platanthera*	*dilatata*	*2*
KS082	*Trientalis*	*europaea*	*1*
KS082	*Caltha*	*leptosepala*	*0.5*
KS082	*Equisetum*	*arvense*	*0.5*
KS082	*Sanguisorba*	*canadensis*	*1*
KS082	*Carex*	*sp*	*5*
KS082	*Aulacommium*	*palustre*	*50*
KS083	*Tsuga*	*heterophylla*	*4*
KS083	*Abies*	*lasiocarpa*	*1*
KS083	*Vaccinium*	*ovalifolium*	*2*
KS083	*Eriophorum*	*angustifolium*	*10*
KS083	*Equisetum*	*arvense*	*1*
KS083	*Carex*	*aquatilis*	*15*
KS083	*Comarum*	*palustre*	*1*
KS083	*Coeloglossum*	*viride*	*0.5*
KS083	*Caltha*	*leptosepala*	*2*
KS083	*Veratrum*	*viride*	*1*
KS083	*Leptarrhena*	*pyrolifolia*	*1*
KS083	*Epilobium*	*angustifolium*	*0.5*
KS083	*Trientalis*	*europaea*	*0.5*
KS083	*Sanguisorba*	*canadensis*	*1*
KS083	*Epilobium*	*angustifolium*	*0.5*
KS083	*Sphagnum*	*sp*	*50*
KS084	*Salix*	*barrattiana*	*30*
KS084	*Salix*	*planifolia*	*5*
KS084	*Eriophorum*	*angustifolium*	*10*
KS084	*Carex*	*aquatilis*	*15*
KS084	*Dryopteris*	*expansa*	*2*
KS084	*Equisetum*	*arvense*	*0.5*
KS084	*Senecio*	*triangularis*	*5*
KS084	*Caltha*	*leptosepala*	*5*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS084	*Leptarrhena*	*pyrolifolia*	*2*
KS084	*Sanguisorba*	*canadensis*	*15*
KS084	*Valeriana*	*sitchensis*	*2*
KS084	*Veratrum*	*viride*	*0.5*
KS084	*Coeloglossum*	*viride*	*1*
KS084	*Viola*	*palustris*	*0.5*
KS084	*Aulacommium*	*palustre*	*35*
KS084	*Drepanocladus*	*sp*	*20*
KS084	*Pellia*	*neesiana*	*0.5*
KS085	*Abies*	*lasiocarpa*	*3*
KS085	*Tsuga*	*heterophylla*	*2*
KS085	*Salix*	*commutata*	*3*
KS085	*Vaccinium*	*ovalifolium*	*2*
KS085	*Salix*	*arctica*	*0.5*
KS085	*Eriophorum*	*angustifolium*	*40*
KS085	*Ranunculus*	*occidentalis*	*1*
KS085	*Equisetum*	*arvense*	*5*
KS085	*Viola*	*palustris*	*2*
KS085	*Caltha*	*leptosepala*	*3*
KS085	*Coeloglossum*	*viride*	*0.5*
KS085	*Leptarrhena*	*pyrolifolia*	*2*
KS085	*Streptopus*	*amplexifolius*	*5*
KS085	*Dryopteris*	*expansa*	*1*
KS085	*Senecio*	*triangularis*	*0.5*
KS085	*Petasites*	*frigidus*	*1*
KS085	*Valeriana*	*sitchensis*	*1*
KS085	*Aulacommium*	*palustre*	*5*
KS085	*Mnium*	*sp*	*3*
KS085	*Scouleria*	*aquatica*	*2*
KS085	*Veratrum*	*viride*	*2*
KS085	*Mitella*	*pentandra*	*0.5*
KS086	*Salix*	*barrattiana*	*30*
KS086	*Eriophorum*	*angustifolium*	*30*
KS086	*Equisetum*	*arvense*	*2*
KS086	*Leptarrhena*	*pyrolifolia*	*10*
KS086	*Caltha*	*leptosepala*	*2*
KS086	*Petasites*	*frigidus*	*0.5*
KS086	*Coeloglossum*	*viride*	*0.5*
KS086	*Viola*	*palustris*	*0.5*
KS086	*Aulacommium*	*palustre*	*1*
KS087	*Abies*	*lasiocarpa*	*3*
KS087	*Tsuga*	*heterophylla*	*2*
KS087	*Salix*	*barrattiana*	*5*
KS087	*Salix*	*barclayi*	*10*
KS087	*Eriophorum*	*angustifolium*	*20*
KS087	*Equisetum*	*arvense*	*10*
KS087	*Leptarrhena*	*pyrolifolia*	*5*
KS087	*Caltha*	*leptosepala*	*5*
KS087	*Viola*	*palustris*	*0.5*
KS087	*Sphagnum*	*sp*	*20*
KS087	*Aulacommium*	*palustre*	*15*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS088	*Kalmia*	*microphylla*	*1*
KS088	*Eriophorum*	*angustifolium*	*10*
KS088	*Carex*	*aquatilis*	*25*
KS088	*Leptarrhena*	*pyrolifolia*	*5*
KS088	*Carex*	*sp*	*5*
KS088	*Fauria*	*crista-galli*	*0.5*
KS088	*Sphagnum*	*sp*	*75*
KS090	*Picea*	*sp*	*2*
KS090	*Salix*	*barrattiana*	*5*
KS090	*Salix*	*arbussculoides*	*5*
KS090	*Eriophorum*	*angustifolium*	*10*
KS090	*Carex*	*aquatilis*	*15*
KS090	*Carex*	*sp*	*15*
KS090	*Comarum*	*palustre*	*5*
KS090	*Menyanthes*	*trifoliata*	*5*
KS090	*Leptarrhena*	*pyrolifolia*	*1*
KS090	*Coeloglossum*	*viride*	*1*
KS090	*Trientalis*	*europaea*	*1*
KS090	*Sanguisorba*	*canadensis*	*1*
KS090	*Scirpus*	*microcarpus*	*13*
KS090	*Cornus*	*canadensis*	*1*
KS090	*Drepanocladus*	*sp*	*40*
KS090	*Sphagnum*	*sp*	*40*
KS091	*Alnus*	*crispa*	*1*
KS091	*Salix*	*drummondiana*	*2*
KS091	*Rubus*	*sp*	*0.5*
KS091	*Poa*	*arctica*	*15*
KS091	*Heracleum*	*lanatum*	*5*
KS091	*Carex*	*aquatilis*	*50*
KS091	*Carex*	*sitchensis*	*20*
KS091	*Equisetum*	*arvense*	*0.5*
KS091	*Senecio*	*triangularis*	*0.5*
KS092	*Salix*	*sitchensis*	*5*
KS092	*Alnus*	*tenuifolia*	*10*
KS092	*Carex*	*sitchensis*	*75*
KS092	*Poa*	*arctica*	*0.5*
KS093	*Alnus*	*tenuifolia*	*75*
KS093	*Sambucus*	*racemosa*	*10*
KS093	*Salix*	*lucidia*	*15*
KS093	*Equisetum*	*arvense*	*40*
KS093	*Poa*	*arctica*	*1*
KS093	*Dryopteris*	*expansa*	*2*
KS093	*Epilobium*	*sp*	*0.5*
KS093	*Carex*	*sitchensis*	*20*
KS094	*Salix*	*barclayi*	*10*
KS094	*Salix*	*planifolia*	*5*
KS094	*Salix*	*barrattiana*	*2*
KS094	*Carex*	*aquatilis*	*25*
KS094	*Eriophorum*	*angustifolium*	*2*
KS094	*Platanthera*	*dilatata*	*1*
KS094	*Sanguisorba*	*canadensis*	*3*

Appendix 2. Wetland Ecosystem Vegetation

Plot	Genus	Species	% Cover
KS094	*Leptarrhena*	*pyrolifolia*	*2*
KS094	*Rubus*	*arctica*	*3*
KS094	*Senecio*	*triangularis*	*1*
KS094	*Carex*	*sp*	*10*
KS094	*Coeloglossum*	*viride*	*0.5*
KS094	*Trientalis*	*europaea*	*2*
KS094	*Veratrum*	*viride*	*0.5*
KS094	*Sphagnum*	*sp*	*75*
KS094	*Aulacommium*	*palustre*	*5*
KS094	*Drepanocladus*	*sp*	*10*

Appendix 3

Wetland Hydrology Static Monitoring Data

Appendix 3. Wetland Hydrology Static Monitoring Data

UR1 Water Levels (cm below ground surface)

	2008					2009				
Well Number	Standpipe Height	10-Jun	26-Jul	1-Sep	26-Sep	Standpipe Height	4-Jun	13-Jul	18-Sep	22-Oct
1	42.1	-7.1	-	-	-	42.1	-9.1	-1.1	-17.6	-10.1
2	31.0	0.0	0.5	1.4	1.0	31.0	-4.0	-1.0	-5.8	-1.0
3	34.0	-	-5.5	-9.8	-5.2	34.0	-11.7	-5.0	-15.5	-14.0
4	36.4	-6.4	-8.4	-6.4	-6.4	36.4	-10.4	-13.0	-6.4	3.6
5	35.0	8.1	3.0	-3.0	5.1	35.0	-5.0	10.4	-11.2	-4.0
6	25.3	3.7	-0.3	-5.3	0.6	25.3	-4.3	5.7	-7.8	-7.5

STE1 Water Levels (cm below ground surface)

	2008					2009				
Well Number	Standpipe Height	7-Jun	25-Jul	29-Aug	26-Sep	Standpipe Height	5-Jun	14-Jul	15-Sep	24-Oct
1	42.1	6.9	5.0	-46.0	-2.7	43.2	-3.2	6.8	16.8	2.8
2	31.0	-8.8	-22.0	-22.6	-12.7	41.0	-12.9	-5.8	6.0	-4.8
3	34.0	0.0	-8.1	-4.1	-5.8	78.7	-22.7	-15.8	-7.5	20.3
4	36.4	56.7	64.2	-63.3	-63.3	61.9	-6.1	61.0	82.6	86.1
5	35.0	50.7	-0.3	0.7	7.6	39.0	-1.0	-2.0	16.0	3.3
6	25.3	48.0	11.0	4.6	8.3	47.0	-2.2	-0.2	15.0	7.0
7	0.0	1.0	0.5	-	-	40.0	-6.0	-4.0	2.0	-2.0

NTR1 Water Levels (cm below ground surface)

	2008					2009			
Well Number	Standpipe Height	9-Jun	25-Jul	29-Aug	26-Sep	Standpipe Height	5-Jun	14-Jul	15-Sep
1	32.1	-1.8	9.9	9.3	5.9	33.0	-3.8	4.9	6.5
2	35.9	96.4	-3.9	-2.0	-2.9	35.0	-1.0	-4.4	-2.0
3	47.3	0.0	-4.3	4.7	1.7	52.0	-7.0	-8.0	-4.0
4	47.0	-12.0	2.0	-47.0	-11.6	44.0	-10.0	-8.5	0.0
5	41.0	24.0	10.0	10.2	-0.2	41.0	-6.0	10.1	-3.5
6	50.0	0.0	-14.0	-50.0	0.6	53.0	-6.0	-5.2	-4.0

Appendix 4

Wetland Hydrology Continuous Monitoring Data

Appendix 4. Wetland Hydrology Continuous Monitoring Data

Average Daily Water Levels: UR1 Well 2

Standpipe height	0.310	m
Logger (below top of standpipe)	1.220	m
Logger (below ground surface)	0.910	m

Note: all levels are reported in metres below ground surface

2008					
Date	**Level (m)**	**Date**	**Level (m)**	**Date**	**Level (m)**
3/15/2008	-	6/11/2008	-	9/7/2008	0.047
3/16/2008	-	6/12/2008	-	9/8/2008	0.045
3/17/2008	-	6/13/2008	-	9/9/2008	0.045
3/18/2008	-	6/14/2008	-	9/10/2008	0.046
3/19/2008	-	6/15/2008	-	9/11/2008	0.047
3/20/2008	-	6/16/2008	-	9/12/2008	0.044
3/21/2008	-	6/17/2008	-	9/13/2008	0.046
3/22/2008	-	6/18/2008	-	9/14/2008	0.045
3/23/2008	-	6/19/2008	-	9/15/2008	0.051
3/24/2008	-	6/20/2008	-	9/16/2008	0.056
3/25/2008	-	6/21/2008	-	9/17/2008	0.054
3/26/2008	-	6/22/2008	-	9/18/2008	0.055
3/27/2008	-	6/23/2008	-	9/19/2008	0.054
3/28/2008	-	6/24/2008	-	9/20/2008	0.049
3/29/2008	-	6/25/2008	-	9/21/2008	0.041
3/30/2008	-	6/26/2008	-	9/22/2008	0.038
3/31/2008	-	6/27/2008	-	9/23/2008	0.040
4/1/2008	-	6/28/2008	-	9/24/2008	0.046
4/2/2008	-	6/29/2008	-	9/25/2008	0.044
4/3/2008	-	6/30/2008	-	9/26/2008	0.049
4/4/2008	-	7/1/2008	-	9/27/2008	0.048
4/5/2008	-	7/2/2008	-	9/28/2008	0.039
4/6/2008	-	7/3/2008	-	9/29/2008	0.042
4/7/2008	-	7/4/2008	-	9/30/2008	0.056
4/8/2008	-	7/5/2008	-	10/1/2008	0.054
4/9/2008	-	7/6/2008	-	10/2/2008	0.061
4/10/2008	-	7/7/2008	-	10/3/2008	0.052
4/11/2008	-	7/8/2008	-	10/4/2008	0.048
4/12/2008	-	7/9/2008	-	10/5/2008	0.040
4/13/2008	-	7/10/2008	-	10/6/2008	0.038
4/14/2008	-	7/11/2008	-	10/7/2008	0.036
4/15/2008	-	7/12/2008	-	10/8/2008	0.029
4/16/2008	-	7/13/2008	-	10/9/2008	0.027
4/17/2008	-	7/14/2008	-	10/10/2008	0.024
4/18/2008	-	7/15/2008	-	10/11/2008	0.022
4/19/2008	-	7/16/2008	-	10/12/2008	0.034
4/20/2008	-	7/17/2008	-	10/13/2008	0.027
4/21/2008	-	7/18/2008	-	10/14/2008	0.030
4/22/2008	-	7/19/2008	-	10/15/2008	0.037
4/23/2008	-	7/20/2008	-		
4/24/2008	-	7/21/2008	-		
4/25/2008	-	7/22/2008	-		
4/26/2008	-	7/23/2008	-		
4/27/2008	-	7/24/2008	-		
4/28/2008	-	7/25/2008	-		
4/29/2008	-	7/26/2008	-		
4/30/2008	-	7/27/2008	-		
5/1/2008	-	7/28/2008	0.061[a]		
5/2/2008	-	7/29/2008	0.059		
5/3/2008	-	7/30/2008	0.055		
5/4/2008	-	7/31/2008	0.054		
5/5/2008	-	8/1/2008	0.058		
5/6/2008	-	8/2/2008	0.064		
5/7/2008	-	8/3/2008	0.072		
5/8/2008	-	8/4/2008	0.086		
5/9/2008	-	8/5/2008	0.102		
5/10/2008	-	8/6/2008	0.120		
5/11/2008	-	8/7/2008	0.126		
5/12/2008	-	8/8/2008	0.135		
5/13/2008	-	8/9/2008	0.128		
5/14/2008	-	8/10/2008	0.120		
5/15/2008	-	8/11/2008	0.110		
5/16/2008	-	8/12/2008	0.080		
5/17/2008	-	8/13/2008	0.069		
5/18/2008	-	8/14/2008	0.064		
5/19/2008	-	8/15/2008	0.061		
5/20/2008	-	8/16/2008	0.061		
5/21/2008	-	8/17/2008	0.063		
5/22/2008	-	8/18/2008	0.060		
5/23/2008	-	8/19/2008	0.061		
5/24/2008	-	8/20/2008	0.057		
5/25/2008	-	8/21/2008	0.052		
5/26/2008	-	8/22/2008	0.050		
5/27/2008	-	8/23/2008	0.055		
5/28/2008	-	8/24/2008	0.048		
5/29/2008	-	8/25/2008	0.043		
5/30/2008	-	8/26/2008	0.045		
5/31/2008	-	8/27/2008	0.048		
6/1/2008	-	8/28/2008	0.042		
6/2/2008	-	8/29/2008	0.047		
6/3/2008	-	8/30/2008	0.045		
6/4/2008	-	8/31/2008	0.045		
6/5/2008	-	9/1/2008	0.045		
6/6/2008	-	9/2/2008	0.045		
6/7/2008	-	9/3/2008	0.044		
6/8/2008	-	9/4/2008	0.044		
6/9/2008	-	9/5/2008	0.048		
6/10/2008	-	9/6/2008	0.047		

Notes

[a] *Levelogger installed* [b] *Water level was below the levelogger*

2009					
Date	**Level (m)**	**Date**	**Level (m)**	**Date**	**Level (m)**
3/15/2009	0.065	6/11/2009	0.066	9/7/2009	0.026
3/16/2009	0.064	6/12/2009	0.056	9/8/2009	0.024
3/17/2009	0.060	6/13/2009	0.059	9/9/2009	0.032
3/18/2009	0.062	6/14/2009	0.067	9/10/2009	0.020
3/19/2009	0.054	6/15/2009	0.055	9/11/2009	0.021
3/20/2009	0.063	6/16/2009	0.049	9/12/2009	0.024
3/21/2009	0.055	6/17/2009	0.046	9/13/2009	0.025
3/22/2009	0.052	6/18/2009	0.037	9/14/2009	0.029
3/23/2009	0.060	6/19/2009	0.036	9/15/2009	0.026
3/24/2009	0.064	6/20/2009	0.033	9/16/2009	0.028
3/25/2009	0.052	6/21/2009	0.033	9/17/2009	0.020
3/26/2009	0.052	6/22/2009	0.033	9/18/2009	0.023
3/27/2009	0.055	6/23/2009	0.032	9/19/2009	0.028
3/28/2009	0.054	6/24/2009	0.044	9/20/2009	0.012
3/29/2009	0.052	6/25/2009	0.041	9/21/2009	0.006
3/30/2009	0.065	6/26/2009	0.031	9/22/2009	0.010
3/31/2009	0.062	6/27/2009	0.033	9/23/2009	0.017
4/1/2009	0.063	6/28/2009	0.031	9/24/2009	0.009
4/2/2009	0.062	6/29/2009	0.024	9/25/2009	0.004
4/3/2009	0.057	6/30/2009	0.023	9/26/2009	0.009
4/4/2009	0.073	7/1/2009	0.027	9/27/2009	-0.003
4/5/2009	0.062	7/2/2009	0.041	9/28/2009	0.006
4/6/2009	0.052	7/3/2009	0.054	9/29/2009	0.009
4/7/2009	0.047	7/4/2009	0.066	9/30/2009	0.001
4/8/2009	0.051	7/5/2009	0.076	10/1/2009	0.010
4/9/2009	0.037	7/6/2009	0.077	10/2/2009	0.010
4/10/2009	0.025	7/7/2009	0.063	10/3/2009	0.003
4/11/2009	0.036	7/8/2009	0.067	10/4/2009	0.002
4/12/2009	0.034	7/9/2009	0.077	10/5/2009	0.002
4/13/2009	0.031	7/10/2009	0.084	10/6/2009	0.016
4/14/2009	0.015	7/11/2009	0.092	10/7/2009	0.007
4/15/2009	0.022	7/12/2009	0.105	10/8/2009	0.011
4/16/2009	0.031	7/13/2009	0.109	10/9/2009	0.009
4/17/2009	0.023	7/14/2009	0.104	10/10/2009	0.005
4/18/2009	0.008	7/15/2009	0.105	10/11/2009	0.008
4/19/2009	0.010	7/16/2009	0.099	10/12/2009	0.012
4/20/2009	0.004	7/17/2009	0.078	10/13/2009	0.018
4/21/2009	-0.007	7/18/2009	0.062	10/14/2009	0.034
4/22/2009	0.009	7/19/2009	0.063	10/15/2009	0.026
4/23/2009	0.006	7/20/2009	0.054		
4/24/2009	0.010	7/21/2009	0.057		
4/25/2009	0.013	7/22/2009	0.067		
4/26/2009	0.006	7/23/2009	0.052		
4/27/2009	0.007	7/24/2009	0.047		
4/28/2009	0.003	7/25/2009	0.046		
4/29/2009	0.003	7/26/2009	0.050		
4/30/2009	0.005	7/27/2009	0.062		
5/1/2009	0.013	7/28/2009	0.084		
5/2/2009	0.007	7/29/2009	0.099		
5/3/2009	-0.012	7/30/2009	0.108		
5/4/2009	-0.003	7/31/2009	0.108		
5/5/2009	0.001	8/1/2009	0.106		
5/6/2009	-0.010	8/2/2009	0.106		
5/7/2009	-0.013	8/3/2009	0.111		
5/8/2009	-0.017	8/4/2009	0.118		
5/9/2009	-0.018	8/5/2009	0.117		
5/10/2009	-0.009	8/6/2009	0.120		
5/11/2009	-0.010	8/7/2009	0.111		
5/12/2009	-0.013	8/8/2009	0.079		
5/13/2009	-0.020	8/9/2009	0.058		
5/14/2009	0.002	8/10/2009	0.054		
5/15/2009	0.016	8/11/2009	0.047		
5/16/2009	0.023	8/12/2009	0.042		
5/17/2009	0.034	8/13/2009	0.041		
5/18/2009	0.033	8/14/2009	0.042		
5/19/2009	0.048	8/15/2009	0.066		
5/20/2009	0.043	8/16/2009	0.051		
5/21/2009	0.042	8/17/2009	0.045		
5/22/2009	0.044	8/18/2009	0.047		
5/23/2009	0.040	8/19/2009	0.049		
5/24/2009	0.045	8/20/2009	0.054		
5/25/2009	0.044	8/21/2009	0.037		
5/26/2009	0.036	8/22/2009	0.026		
5/27/2009	0.030	8/23/2009	0.020		
5/28/2009	0.034	8/24/2009	0.021		
5/29/2009	0.028	8/25/2009	0.027		
5/30/2009	0.027	8/26/2009	0.022		
5/31/2009	0.039	8/27/2009	0.032		
6/1/2009	0.049	8/28/2009	0.028		
6/2/2009	0.052	8/29/2009	0.025		
6/3/2009	0.056	8/30/2009	0.022		
6/4/2009	0.076	8/31/2009	0.026		
6/5/2009	0.066	9/1/2009	0.030		
6/6/2009	0.068	9/2/2009	0.029		
6/7/2009	0.063	9/3/2009	0.031		
6/8/2009	0.052	9/4/2009	0.028		
6/9/2009	0.058	9/5/2009	0.032		
6/10/2009	0.065	9/6/2009	0.029		

Notes

[a] *Levelogger installed* [b] *Water level was below the levelogger*

Appendix 4. Wetland Hydrology Continuous Monitoring Data

Average Daily Water Levels: UR1 Well 2

Standpipe height	0.36	m
Logger (below top of standpipe)	1.48	m
Logger (below ground surface)	1.12	m

Note: all levels are reported in metres below ground surface

2008					
Date	Level (m)	Date	Level (m)	Date	Level (m)
3/15/2008	-	6/11/2008	-0.028[a]	9/7/2008	-0.032
3/16/2008	-	6/12/2008	-0.045	9/8/2008	-0.037
3/17/2008	-	6/13/2008	-0.042	9/9/2008	-0.031
3/18/2008	-	6/14/2008	-0.041	9/10/2008	-0.031
3/19/2008	-	6/15/2008	-0.041	9/11/2008	-0.032
3/20/2008	-	6/16/2008	-0.034	9/12/2008	-0.031
3/21/2008	-	6/17/2008	-0.038	9/13/2008	-0.026
3/22/2008	-	6/18/2008	-0.040	9/14/2008	-0.027
3/23/2008	-	6/19/2008	-0.033	9/15/2008	-0.025
3/24/2008	-	6/20/2008	-0.027	9/16/2008	-0.019
3/25/2008	-	6/21/2008	-0.038	9/17/2008	-0.018
3/26/2008	-	6/22/2008	-0.045	9/18/2008	-0.019
3/27/2008	-	6/23/2008	-0.040	9/19/2008	-0.023
3/28/2008	-	6/24/2008	-0.043	9/20/2008	-0.025
3/29/2008	-	6/25/2008	-0.051	9/21/2008	-0.030
3/30/2008	-	6/26/2008	-0.045	9/22/2008	-0.031
3/31/2008	-	6/27/2008	-0.043	9/23/2008	-0.028
4/1/2008	-	6/28/2008	-0.052	9/24/2008	-0.022
4/2/2008	-	6/29/2008	-0.047	9/25/2008	-0.024
4/3/2008	-	6/30/2008	-0.033	9/26/2008	-0.018
4/4/2008	-	7/1/2008	-0.031	9/27/2008	-0.022
4/5/2008	-	7/2/2008	-0.031	9/28/2008	-0.040
4/6/2008	-	7/3/2008	-0.038	9/29/2008	-0.055
4/7/2008	-	7/4/2008	-0.037	9/30/2008	-0.036
4/8/2008	-	7/5/2008	-0.040	10/1/2008	-0.028
4/9/2008	-	7/6/2008	-0.051	10/2/2008	-0.021
4/10/2008	-	7/7/2008	-0.050	10/3/2008	-0.038
4/11/2008	-	7/8/2008	-0.053	10/4/2008	-0.035
4/12/2008	-	7/9/2008	-0.056	10/5/2008	-0.047
4/13/2008	-	7/10/2008	-0.052	10/6/2008	-0.044
4/14/2008	-	7/11/2008	-0.047	10/7/2008	-0.042
4/15/2008	-	7/12/2008	-0.049	10/8/2008	-0.055
4/16/2008	-	7/13/2008	-0.047	10/9/2008	-0.053
4/17/2008	-	7/14/2008	-0.046	10/10/2008	-0.053
4/18/2008	-	7/15/2008	-0.045	10/11/2008	-0.069
4/19/2008	-	7/16/2008	-0.045	10/12/2008	-0.061
4/20/2008	-	7/17/2008	-0.045	10/13/2008	-0.073
4/21/2008	-	7/18/2008	-0.046	10/14/2008	-0.065
4/22/2008	-	7/19/2008	-0.047	10/15/2008	-0.054
4/23/2008	-	7/20/2008	-0.047		
4/24/2008	-	7/21/2008	-0.053		
4/25/2008	-	7/22/2008	-0.048		
4/26/2008	-	7/23/2008	-0.045		
4/27/2008	-	7/24/2008	-0.040		
4/28/2008	-	7/25/2008	-0.036		
4/29/2008	-	7/26/2008	-0.044		
4/30/2008	-	7/27/2008	-0.050		
5/1/2008	-	7/28/2008	-0.042183435		
5/2/2008	-	7/29/2008	-0.041		
5/3/2008	-	7/30/2008	-0.046		
5/4/2008	-	7/31/2008	-0.046		
5/5/2008	-	8/1/2008	-0.045		
5/6/2008	-	8/2/2008	-0.041		
5/7/2008	-	8/3/2008	-0.043		
5/8/2008	-	8/4/2008	-0.038		
5/9/2008	-	8/5/2008	-0.032		
5/10/2008	-	8/6/2008	-0.025		
5/11/2008	-	8/7/2008	-0.028		
5/12/2008	-	8/8/2008	-0.025		
5/13/2008	-	8/9/2008	-0.032		
5/14/2008	-	8/10/2008	-0.037		
5/15/2008	-	8/11/2008	-0.037		
5/16/2008	-	8/12/2008	-0.038		
5/17/2008	-	8/13/2008	-0.043		
5/18/2008	-	8/14/2008	-0.046		
5/19/2008	-	8/15/2008	-0.042		
5/20/2008	-	8/16/2008	-0.038		
5/21/2008	-	8/17/2008	-0.037		
5/22/2008	-	8/18/2008	-0.046		
5/23/2008	-	8/19/2008	-0.039		
5/24/2008	-	8/20/2008	-0.037		
5/25/2008	-	8/21/2008	-0.039		
5/26/2008	-	8/22/2008	-0.041		
5/27/2008	-	8/23/2008	-0.040		
5/28/2008	-	8/24/2008	-0.058		
5/29/2008	-	8/25/2008	-0.066		
5/30/2008	-	8/26/2008	-0.066		
5/31/2008	-	8/27/2008	-0.059		
6/1/2008	-	8/28/2008	-0.066		
6/2/2008	-	8/29/2008	-0.055		
6/3/2008	-	8/30/2008	-0.053		
6/4/2008	-	8/31/2008	-0.047		
6/5/2008	-	9/1/2008	-0.049		
6/6/2008	-	9/2/2008	-0.045		
6/7/2008	-	9/3/2008	-0.042		
6/8/2008	-	9/4/2008	-0.039		
6/9/2008	-	9/5/2008	-0.033		
6/10/2008	-	9/6/2008	-0.032		

Notes

[a] *Levelogger installed*   [b] *Water level was below the levelogger*

2009					
Date	Level (m)	Date	Level (m)	Date	Level (m)
3/15/2009	0.008	6/11/2009	-0.066	9/7/2009	-0.066
3/16/2009	0.007	6/12/2009	-0.075	9/8/2009	-0.066
3/17/2009	0.001	6/13/2009	-0.072	9/9/2009	-0.059
3/18/2009	0.004	6/14/2009	-0.069	9/10/2009	-0.079
3/19/2009	-0.004	6/15/2009	-0.079	9/11/2009	-0.087
3/20/2009	0.007	6/16/2009	-0.079	9/12/2009	-0.082
3/21/2009	0.000	6/17/2009	-0.078	9/13/2009	-0.084
3/22/2009	-0.003	6/18/2009	-0.082	9/14/2009	-0.075
3/23/2009	0.005	6/19/2009	-0.080	9/15/2009	-0.075
3/24/2009	0.010	6/20/2009	-0.081	9/16/2009	-0.078
3/25/2009	-0.002	6/21/2009	-0.079	9/17/2009	-0.086
3/26/2009	-0.004	6/22/2009	-0.082	9/18/2009	-0.382
3/27/2009	0.002	6/23/2009	-0.083	9/19/2009	-0.868
3/28/2009	0.002	6/24/2009	-0.074	9/20/2009	-1.000
3/29/2009	-0.002	6/25/2009	-0.080	9/21/2009	-0.994
3/30/2009	0.012	6/26/2009	-0.089	9/22/2009	-0.970
3/31/2009	0.011	6/27/2009	-0.085	9/23/2009	-0.893
4/1/2009	0.012	6/28/2009	-0.088	9/24/2009	-1.019
4/2/2009	0.013	6/29/2009	-0.098	9/25/2009	-0.953
4/3/2009	0.007	6/30/2009	-0.095	9/26/2009	-1.048
4/4/2009	0.024	7/1/2009	-0.091	9/27/2009	-1.057
4/5/2009	0.010	7/2/2009	-0.081	9/28/2009	-0.873
4/6/2009	-0.003	7/3/2009	-0.077	9/29/2009	-0.906
4/7/2009	-0.008	7/4/2009	-0.072	9/30/2009	-0.948
4/8/2009	-0.003	7/5/2009	-0.071	10/1/2009	-0.968
4/9/2009	-0.015	7/6/2009	-0.076	10/2/2009	-1.035
4/10/2009	-0.026	7/7/2009	-0.079	10/3/2009	-1.099
4/11/2009	-0.013	7/8/2009	-0.077	10/4/2009	-1.070
4/12/2009	-0.011	7/9/2009	-0.081	10/5/2009	-1.002
4/13/2009	-0.019	7/10/2009	-0.086	10/6/2009	-1.019
4/14/2009	-0.038	7/11/2009	-0.083	10/7/2009	-1.068
4/15/2009	-0.035	7/12/2009	-0.077	10/8/2009	-1.060
4/16/2009	-0.027	7/13/2009	-0.078	10/9/2009	-1.079
4/17/2009	-0.037	7/14/2009	-0.086	10/10/2009	-1.041
4/18/2009	-0.051	7/15/2009	-0.083	10/11/2009	-0.945
4/19/2009	-0.052	7/16/2009	-0.080	10/12/2009	-0.912
4/20/2009	-0.060	7/17/2009	-0.081	10/13/2009	-0.863
4/21/2009	-0.075	7/18/2009	-0.083	10/14/2009	-0.748
4/22/2009	-0.060	7/19/2009	-0.084	10/15/2009	-0.758
4/23/2009	-0.063	7/20/2009	-0.089		
4/24/2009	-0.058	7/21/2009	-0.085		
4/25/2009	-0.056	7/22/2009	-0.082		
4/26/2009	-0.066	7/23/2009	-0.089		
4/27/2009	-0.069	7/24/2009	-0.086		
4/28/2009	-0.076	7/25/2009	-0.079		
4/29/2009	-0.078	7/26/2009	-0.077		
4/30/2009	-0.074	7/27/2009	-0.074		
5/1/2009	-0.065	7/28/2009	-0.066		
5/2/2009	-0.066	7/29/2009	-0.061		
5/3/2009	-0.080	7/30/2009	-0.058		
5/4/2009	-0.070	7/31/2009	-0.063		
5/5/2009	-0.051	8/1/2009	-0.069		
5/6/2009	-0.063	8/2/2009	-0.072		
5/7/2009	-0.068	8/3/2009	-0.065		
5/8/2009	-0.076	8/4/2009	-0.062		
5/9/2009	-0.077	8/5/2009	-0.064		
5/10/2009	-0.060	8/6/2009	-0.063		
5/11/2009	-0.054	8/7/2009	-0.067		
5/12/2009	-0.069	8/8/2009	-0.075		
5/13/2009	-0.077	8/9/2009	-0.082		
5/14/2009	-0.069	8/10/2009	-0.077		
5/15/2009	-0.073	8/11/2009	-0.076		
5/16/2009	-0.075	8/12/2009	-0.074		
5/17/2009	-0.066	8/13/2009	-0.074		
5/18/2009	-0.062	8/14/2009	-0.073		
5/19/2009	-0.036	8/15/2009	-0.061		
5/20/2009	-0.038	8/16/2009	-0.066		
5/21/2009	-0.034	8/17/2009	-0.071		
5/22/2009	-0.032	8/18/2009	-0.069		
5/23/2009	-0.040	8/19/2009	-0.062		
5/24/2009	-0.030	8/20/2009	-0.054		
5/25/2009	-0.036	8/21/2009	-0.075		
5/26/2009	-0.050	8/22/2009	-0.078		
5/27/2009	-0.050	8/23/2009	-0.079		
5/28/2009	-0.032	8/24/2009	-0.075		
5/29/2009	-0.049	8/25/2009	-0.075		
5/30/2009	-0.046	8/26/2009	-0.075		
5/31/2009	-0.031	8/27/2009	-0.055		
6/1/2009	-0.030	8/28/2009	-0.039		
6/2/2009	-0.037	8/29/2009	-0.056		
6/3/2009	-0.040	8/30/2009	-0.079		
6/4/2009	-0.042	8/31/2009	-0.069		
6/5/2009	-0.051	9/1/2009	-0.064		
6/6/2009	-0.051	9/2/2009	-0.063		
6/7/2009	-0.061	9/3/2009	-0.065		
6/8/2009	-0.069	9/4/2009	-0.067		
6/9/2009	-0.056	9/5/2009	-0.059		
6/10/2009	-0.060	9/6/2009	-0.062		

Notes

[a] *Levelogger installed*   [b] *Water level was below the levelogger*

Appendix 4. Wetland Hydrology Continuous Monitoring Data
Average Daily Water Levels: UR1 Well 2

Standpipe height	0.63	m
Logger (below top of standpipe)	1.45	m
Logger (below ground surface)	0.81	m

Note: all levels are reported in metres below ground surface

2008					
Date	Level (m)	Date	Level (m)	Date	Level (m)
3/15/2008	-	6/11/2008	0.519	9/7/2008	0.767
3/16/2008	-	6/12/2008	0.477	9/8/2008	0.749
3/17/2008	-	6/13/2008	0.504	9/9/2008	0.767
3/18/2008	-	6/14/2008	0.511	9/10/2008	0.758
3/19/2008	-	6/15/2008	0.500	9/11/2008	0.745
3/20/2008	-	6/16/2008	0.505	9/12/2008	0.763
3/21/2008	-	6/17/2008	0.533	9/13/2008	0.777
3/22/2008	-	6/18/2008	0.506	9/14/2008	0.787
3/23/2008	-	6/19/2008	0.505	9/15/2008	0.754
3/24/2008	-	6/20/2008	0.493	9/16/2008	0.733
3/25/2008	-	6/21/2008	0.352	9/17/2008	0.742
3/26/2008	-	6/22/2008	0.330	9/18/2008	0.759
3/27/2008	-	6/23/2008	0.424	9/19/2008	0.762
3/28/2008	-	6/24/2008	0.434	9/20/2008	0.759
3/29/2008	-	6/25/2008	0.463	9/21/2008	0.778
3/30/2008	-	6/26/2008	0.497	9/22/2008	0.803
3/31/2008	-	6/27/2008	0.495	9/23/2008	*b*
4/1/2008	-	6/28/2008	0.383	9/24/2008	*b*
4/2/2008	-	6/29/2008	0.426	9/25/2008	*b*
4/3/2008	-	6/30/2008	0.447	9/26/2008	*b*
4/4/2008	-	7/1/2008	0.376	9/27/2008	*b*
4/5/2008	-	7/2/2008	0.290	9/28/2008	0.810
4/6/2008	-	7/3/2008	0.265	9/29/2008	0.493
4/7/2008	-	7/4/2008	0.287	9/30/2008	0.608
4/8/2008	-	7/5/2008	0.268	10/1/2008	0.672
4/9/2008	-	7/6/2008	0.293	10/2/2008	0.686
4/10/2008	-	7/7/2008	0.379	10/3/2008	0.669
4/11/2008	-	7/8/2008	0.429	10/4/2008	0.716
4/12/2008	-	7/9/2008	0.463	10/5/2008	0.710
4/13/2008	-	7/10/2008	0.510	10/6/2008	0.743
4/14/2008	-	7/11/2008	0.532	10/7/2008	0.760
4/15/2008	-	7/12/2008	0.526	10/8/2008	0.777
4/16/2008	-	7/13/2008	0.524	10/9/2008	0.787
4/17/2008	-	7/14/2008	0.508	10/10/2008	0.801
4/18/2008	-	7/15/2008	0.505	10/11/2008	0.807
4/19/2008	-	7/16/2008	0.509	10/12/2008	0.810
4/20/2008	-	7/17/2008	0.528	10/13/2008	0.772
4/21/2008	-	7/18/2008	0.533	10/14/2008	0.785
4/22/2008	-	7/19/2008	0.530	10/15/2008	0.803
4/23/2008	-	7/20/2008	0.512		
4/24/2008	-	7/21/2008	0.498		
4/25/2008	-	7/22/2008	0.552		
4/26/2008	-	7/23/2008	0.585		
4/27/2008	-	7/24/2008	0.601		
4/28/2008	-	7/25/2008	0.602		
4/29/2008	-	7/26/2008	0.580		
4/30/2008	-	7/27/2008	0.584		
5/1/2008	-	7/28/2008	0.603		
5/2/2008	-	7/29/2008	0.490		
5/3/2008	-	7/30/2008	0.521		
5/4/2008	-	7/31/2008	0.581		
5/5/2008	-	8/1/2008	0.615		
5/6/2008	-	8/2/2008	0.634		
5/7/2008	-	8/3/2008	0.634		
5/8/2008	-	8/4/2008	0.633		
5/9/2008	-	8/5/2008	0.625		
5/10/2008	-	8/6/2008	0.611		
5/11/2008	-	8/7/2008	0.602		
5/12/2008	-	8/8/2008	0.605		
5/13/2008	-	8/9/2008	0.624		
5/14/2008	-	8/10/2008	0.619		
5/15/2008	-	8/11/2008	0.630		
5/16/2008	-	8/12/2008	0.610		
5/17/2008	-	8/13/2008	0.587		
5/18/2008	-	8/14/2008	0.547		
5/19/2008	-	8/15/2008	0.566		
5/20/2008	-	8/16/2008	0.588		
5/21/2008	-	8/17/2008	0.603		
5/22/2008	-	8/18/2008	0.600		
5/23/2008	-	8/19/2008	0.631		
5/24/2008	-	8/20/2008	0.646		
5/25/2008	-	8/21/2008	0.652		
5/26/2008	-	8/22/2008	0.671		
5/27/2008	-	8/23/2008	0.621		
5/28/2008	-	8/24/2008	0.414		
5/29/2008	-	8/25/2008	0.548		
5/30/2008	-	8/26/2008	0.611		
5/31/2008	-	8/27/2008	0.640		
6/1/2008	-	8/28/2008	0.654		
6/2/2008	-	8/29/2008	0.668		
6/3/2008	-	8/30/2008	0.674		
6/4/2008	-	8/31/2008	0.686		
6/5/2008	-	9/1/2008	0.713		
6/6/2008	-	9/2/2008	0.728		
6/7/2008	-	9/3/2008	0.738		
6/8/2008	0.507[a]	9/4/2008	0.743		
6/9/2008	0.544	9/5/2008	0.753		
6/10/2008	0.549	9/6/2008	0.760		

Notes
[a] *Levelogger installed* [b] *Water level was below the levelogger*

2009					
Date	Level (m)	Date	Level (m)	Date	Level (m)
3/15/2009	*b*	6/11/2009	0.330	9/7/2009	*b*
3/16/2009	*b*	6/12/2009	0.371	9/8/2009	*b*
3/17/2009	*b*	6/13/2009	0.445	9/9/2009	*b*
3/18/2009	*b*	6/14/2009	0.516	9/10/2009	*b*
3/19/2009	*b*	6/15/2009	0.549	9/11/2009	*b*
3/20/2009	*b*	6/16/2009	0.588	9/12/2009	*b*
3/21/2009	*b*	6/17/2009	0.582	9/13/2009	*b*
3/22/2009	*b*	6/18/2009	0.619	9/14/2009	*b*
3/23/2009	*b*	6/19/2009	0.644	9/15/2009	*b*
3/24/2009	*b*	6/20/2009	0.684	9/16/2009	*b*
3/25/2009	*b*	6/21/2009	0.725	9/17/2009	*b*
3/26/2009	*b*	6/22/2009	0.751	9/18/2009	*b*
3/27/2009	*b*	6/23/2009	0.755	9/19/2009	*b*
3/28/2009	*b*	6/24/2009	0.746	9/20/2009	*b*
3/29/2009	*b*	6/25/2009	0.719	9/21/2009	*b*
3/30/2009	*b*	6/26/2009	0.749	9/22/2009	0.765
3/31/2009	*b*	6/27/2009	0.766	9/23/2009	*b*
4/1/2009	*b*	6/28/2009	0.785	9/24/2009	*b*
4/2/2009	*b*	6/29/2009	0.808	9/25/2009	*b*
4/3/2009	*b*	6/30/2009	*b*	9/26/2009	*b*
4/4/2009	*b*	7/1/2009	*b*	9/27/2009	*b*
4/5/2009	*b*	7/2/2009	*b*	9/28/2009	*b*
4/6/2009	*b*	7/3/2009	*b*	9/29/2009	*b*
4/7/2009	*b*	7/4/2009	0.795	9/30/2009	*b*
4/8/2009	*b*	7/5/2009	0.782	10/1/2009	*b*
4/9/2009	*b*	7/6/2009	0.765	10/2/2009	*b*
4/10/2009	*b*	7/7/2009	0.776	10/3/2009	*b*
4/11/2009	*b*	7/8/2009	0.811	10/4/2009	*b*
4/12/2009	*b*	7/9/2009	0.800	10/5/2009	*b*
4/13/2009	*b*	7/10/2009	0.793	10/6/2009	*b*
4/14/2009	*b*	7/11/2009	0.803	10/7/2009	*b*
4/15/2009	*b*	7/12/2009	*b*	10/8/2009	*b*
4/16/2009	*b*	7/13/2009	*b*	10/9/2009	*b*
4/17/2009	*b*	7/14/2009	*b*	10/10/2009	*b*
4/18/2009	*b*	7/15/2009	*b*	10/11/2009	*b*
4/19/2009	*b*	7/16/2009	*b*	10/12/2009	*b*
4/20/2009	*b*	7/17/2009	*b*	10/13/2009	*b*
4/21/2009	*b*	7/18/2009	*b*	10/14/2009	*b*
4/22/2009	*b*	7/19/2009	*b*	10/15/2009	*b*
4/23/2009	*b*	7/20/2009	*b*		
4/24/2009	*b*	7/21/2009	*b*		
4/25/2009	*b*	7/22/2009	*b*		
4/26/2009	*b*	7/23/2009	*b*		
4/27/2009	*b*	7/24/2009	*b*		
4/28/2009	*b*	7/25/2009	*b*		
4/29/2009	*b*	7/26/2009	*b*		
4/30/2009	*b*	7/27/2009	*b*		
5/1/2009	*b*	7/28/2009	*b*		
5/2/2009	*b*	7/29/2009	*b*		
5/3/2009	*b*	7/30/2009	*b*		
5/4/2009	*b*	7/31/2009	*b*		
5/5/2009	0.749	8/1/2009	*b*		
5/6/2009	0.682	8/2/2009	*b*		
5/7/2009	0.601	8/3/2009	*b*		
5/8/2009	0.606	8/4/2009	*b*		
5/9/2009	0.641	8/5/2009	*b*		
5/10/2009	0.639	8/6/2009	*b*		
5/11/2009	0.650	8/7/2009	*b*		
5/12/2009	0.621	8/8/2009	*b*		
5/13/2009	0.614	8/9/2009	*b*		
5/14/2009	0.593	8/10/2009	*b*		
5/15/2009	0.602	8/11/2009	*b*		
5/16/2009	0.654	8/12/2009	*b*		
5/17/2009	0.600	8/13/2009	*b*		
5/18/2009	0.622	8/14/2009	*b*		
5/19/2009	0.662	8/15/2009	*b*		
5/20/2009	0.625	8/16/2009	*b*		
5/21/2009	0.593	8/17/2009	*b*		
5/22/2009	0.582	8/18/2009	*b*		
5/23/2009	0.518	8/19/2009	*b*		
5/24/2009	0.492	8/20/2009	*b*		
5/25/2009	0.474	8/21/2009	*b*		
5/26/2009	0.420	8/22/2009	*b*		
5/27/2009	0.447	8/23/2009	*b*		
5/28/2009	0.521	8/24/2009	*b*		
5/29/2009	0.469	8/25/2009	*b*		
5/30/2009	0.508	8/26/2009	*b*		
5/31/2009	0.523	8/27/2009	*b*		
6/1/2009	0.479	8/28/2009	*b*		
6/2/2009	0.397	8/29/2009	*b*		
6/3/2009	0.316	8/30/2009	*b*		
6/4/2009	0.268	8/31/2009	*b*		
6/5/2009	0.238	9/1/2009	*b*		
6/6/2009	0.162	9/2/2009	*b*		
6/7/2009	0.153	9/3/2009	*b*		
6/8/2009	0.137	9/4/2009	*b*		
6/9/2009	0.176	9/5/2009	*b*		
6/10/2009	0.274	9/6/2009	*b*		

Notes
[a] *Levelogger installed* [b] *Water level was below the levelogger*

Appendix 4. Wetland Hydrology Continuous Monitoring Data
Average Daily Water Levels: UR1 Well 2

Standpipe height	0.400	m
Logger (below top of standpipe)	1.475	m
Logger (below ground surface)	1.075	m

Note: all levels are reported in metres below ground surface

2008					
Date	Level (m)	Date	Level (m)	Date	Level (m)
3/15/2008	-	6/11/2008	0.055	9/7/2008	0.095
3/16/2008	-	6/12/2008	0.040	9/8/2008	0.079
3/17/2008	-	6/13/2008	0.042	9/9/2008	0.095
3/18/2008	-	6/14/2008	0.047	9/10/2008	0.075
3/19/2008	-	6/15/2008	0.043	9/11/2008	0.066
3/20/2008	-	6/16/2008	0.043	9/12/2008	0.084
3/21/2008	-	6/17/2008	0.042	9/13/2008	0.098
3/22/2008	-	6/18/2008	0.038	9/14/2008	0.106
3/23/2008	-	6/19/2008	0.041	9/15/2008	0.091
3/24/2008	-	6/20/2008	0.041	9/16/2008	0.095
3/25/2008	-	6/21/2008	0.025	9/17/2008	0.104
3/26/2008	-	6/22/2008	0.030	9/18/2008	0.109
3/27/2008	-	6/23/2008	0.035	9/19/2008	0.111
3/28/2008	-	6/24/2008	0.031	9/20/2008	0.100
3/29/2008	-	6/25/2008	0.030	9/21/2008	0.101
3/30/2008	-	6/26/2008	0.036	9/22/2008	0.107
3/31/2008	-	6/27/2008	0.032	9/23/2008	0.109
4/1/2008	-	6/28/2008	0.031	9/24/2008	0.109
4/2/2008	-	6/29/2008	0.031	9/25/2008	0.111
4/3/2008	-	6/30/2008	0.037	9/26/2008	0.111
4/4/2008	-	7/1/2008	0.036	9/27/2008	0.091
4/5/2008	-	7/2/2008	0.034	9/28/2008	0.067
4/6/2008	-	7/3/2008	0.028	9/29/2008	0.028
4/7/2008	-	7/4/2008	0.027	9/30/2008	0.052
4/8/2008	-	7/5/2008	0.021	10/1/2008	0.029
4/9/2008	-	7/6/2008	0.026	10/2/2008	0.025
4/10/2008	-	7/7/2008	0.025	10/3/2008	0.030
4/11/2008	-	7/8/2008	0.022	10/4/2008	0.027
4/12/2008	-	7/9/2008	0.026	10/5/2008	0.029
4/13/2008	-	7/10/2008	0.034	10/6/2008	0.027
4/14/2008	-	7/11/2008	0.040	10/7/2008	0.033
4/15/2008	-	7/12/2008	0.032	10/8/2008	0.027
4/16/2008	-	7/13/2008	0.039	10/9/2008	0.032
4/17/2008	-	7/14/2008	0.051	10/10/2008	0.038
4/18/2008	-	7/15/2008	0.053	10/11/2008	0.036
4/19/2008	-	7/16/2008	0.051	10/12/2008	0.035
4/20/2008	-	7/17/2008	0.050	10/13/2008	0.020
4/21/2008	-	7/18/2008	0.053	10/14/2008	0.039
4/22/2008	-	7/19/2008	0.051	10/15/2008	0.040
4/23/2008	-	7/20/2008	0.040		
4/24/2008	-	7/21/2008	0.027		
4/25/2008	-	7/22/2008	0.045		
4/26/2008	-	7/23/2008	0.054		
4/27/2008	-	7/24/2008	0.064		
4/28/2008	-	7/25/2008	0.072		
4/29/2008	-	7/26/2008	0.073		
4/30/2008	-	7/27/2008	0.078		
5/1/2008	-	7/28/2008	0.064		
5/2/2008	-	7/29/2008	0.026		
5/3/2008	-	7/30/2008	0.045		
5/4/2008	-	7/31/2008	0.056		
5/5/2008	-	8/1/2008	0.062		
5/6/2008	-	8/2/2008	0.075		
5/7/2008	-	8/3/2008	0.085		
5/8/2008	-	8/4/2008	0.096		
5/9/2008	-	8/5/2008	0.099		
5/10/2008	-	8/6/2008	0.102		
5/11/2008	-	8/7/2008	0.103		
5/12/2008	-	8/8/2008	0.100		
5/13/2008	-	8/9/2008	0.095		
5/14/2008	-	8/10/2008	0.092		
5/15/2008	-	8/11/2008	0.089		
5/16/2008	-	8/12/2008	0.060		
5/17/2008	-	8/13/2008	0.050		
5/18/2008	-	8/14/2008	0.044		
5/19/2008	-	8/15/2008	0.055		
5/20/2008	-	8/16/2008	0.065		
5/21/2008	-	8/17/2008	0.076		
5/22/2008	-	8/18/2008	0.062		
5/23/2008	-	8/19/2008	0.078		
5/24/2008	-	8/20/2008	0.087		
5/25/2008	-	8/21/2008	0.089		
5/26/2008	-	8/22/2008	0.093		
5/27/2008	-	8/23/2008	0.063		
5/28/2008	-	8/24/2008	0.033		
5/29/2008	-	8/25/2008	0.046		
5/30/2008	-	8/26/2008	0.035		
5/31/2008	-	8/27/2008	0.034		
6/1/2008	-	8/28/2008	0.039		
6/2/2008	-	8/29/2008	0.046		
6/3/2008	-	8/30/2008	0.038		
6/4/2008	-	8/31/2008	0.039		
6/5/2008	-	9/1/2008	0.056		
6/6/2008	-	9/2/2008	0.052		
6/7/2008	-	9/3/2008	0.062		
6/8/2008	0.040[a]	9/4/2008	0.065		
6/9/2008	0.052	9/5/2008	0.079		
6/10/2008	0.057	9/6/2008	0.091		

Notes
[a] *Levelogger installed* [b] *Water level was below the levelogger*

2009					
Date	Level (m)	Date	Level (m)	Date	Level (m)
3/15/2009	0.288	6/11/2009	0.027	9/7/2009	0.105
3/16/2009	0.291	6/12/2009	0.026	9/8/2009	0.115
3/17/2009	0.293	6/13/2009	0.027	9/9/2009	0.078
3/18/2009	0.295	6/14/2009	0.027	9/10/2009	0.061
3/19/2009	0.297	6/15/2009	0.023	9/11/2009	0.053
3/20/2009	0.299	6/16/2009	0.022	9/12/2009	0.071
3/21/2009	0.302	6/17/2009	0.019	9/13/2009	0.062
3/22/2009	0.304	6/18/2009	0.023	9/14/2009	0.082
3/23/2009	0.307	6/19/2009	0.015	9/15/2009	0.087
3/24/2009	0.309	6/20/2009	0.012	9/16/2009	0.034
3/25/2009	0.312	6/21/2009	0.009	9/17/2009	0.037
3/26/2009	0.314	6/22/2009	0.011	9/18/2009	0.035
3/27/2009	0.317	6/23/2009	0.008	9/19/2009	0.018
3/28/2009	0.320	6/24/2009	0.009	9/20/2009	0.029
3/29/2009	0.322	6/25/2009	0.003	9/21/2009	-0.005
3/30/2009	0.324	6/26/2009	0.005	9/22/2009	-0.010
3/31/2009	0.326	6/27/2009	-0.006	9/23/2009	-0.008
4/1/2009	0.329	6/28/2009	0.000	9/24/2009	-0.003
4/2/2009	0.332	6/29/2009	0.000	9/25/2009	-0.006
4/3/2009	0.334	6/30/2009	0.007	9/26/2009	-0.006
4/4/2009	0.337	7/1/2009	0.008	9/27/2009	-0.005
4/5/2009	0.340	7/2/2009	0.010	9/28/2009	-0.005
4/6/2009	0.342	7/3/2009	0.009	9/29/2009	0.003
4/7/2009	0.345	7/4/2009	0.006	9/30/2009	0.005
4/8/2009	0.344	7/5/2009	0.005	10/1/2009	0.002
4/9/2009	0.334	7/6/2009	-0.001	10/2/2009	0.014
4/10/2009	0.319	7/7/2009	-0.001	10/3/2009	0.016
4/11/2009	0.320	7/8/2009	0.003	10/4/2009	0.020
4/12/2009	0.319	7/9/2009	0.004	10/5/2009	0.021
4/13/2009	0.321	7/10/2009	0.005	10/6/2009	0.008
4/14/2009	0.306	7/11/2009	0.002	10/7/2009	0.025
4/15/2009	0.297	7/12/2009	0.003	10/8/2009	0.028
4/16/2009	0.298	7/13/2009	0.002	10/9/2009	0.017
4/17/2009	0.287	7/14/2009	0.003	10/10/2009	0.025
4/18/2009	0.283	7/15/2009	0.006	10/11/2009	0.030
4/19/2009	0.287	7/16/2009	0.009	10/12/2009	0.032
4/20/2009	0.278	7/17/2009	0.004	10/13/2009	0.037
4/21/2009	0.253	7/18/2009	0.001	10/14/2009	0.046
4/22/2009	0.248	7/19/2009	0.010	10/15/2009	0.053
4/23/2009	0.248	7/20/2009	0.014		
4/24/2009	0.246	7/21/2009	0.022		
4/25/2009	0.246	7/22/2009	0.033		
4/26/2009	0.229	7/23/2009	0.035		
4/27/2009	0.213	7/24/2009	0.036		
4/28/2009	0.193	7/25/2009	0.044		
4/29/2009	0.178	7/26/2009	0.055		
4/30/2009	0.158	7/27/2009	0.065		
5/1/2009	0.130	7/28/2009	0.071		
5/2/2009	0.096	7/29/2009	0.075		
5/3/2009	0.061	7/30/2009	0.073		
5/4/2009	0.055	7/31/2009	0.072		
5/5/2009	0.043	8/1/2009	0.073		
5/6/2009	0.035	8/2/2009	0.077		
5/7/2009	0.034	8/3/2009	0.080		
5/8/2009	0.038	8/4/2009	0.087		
5/9/2009	0.035	8/5/2009	0.093		
5/10/2009	0.037	8/6/2009	0.101		
5/11/2009	0.035	8/7/2009	0.106		
5/12/2009	0.034	8/8/2009	0.105		
5/13/2009	0.030	8/9/2009	0.089		
5/14/2009	0.028	8/10/2009	0.069		
5/15/2009	0.031	8/11/2009	0.060		
5/16/2009	0.028	8/12/2009	0.072		
5/17/2009	0.023	8/13/2009	0.089		
5/18/2009	0.029	8/14/2009	0.099		
5/19/2009	0.026	8/15/2009	0.109		
5/20/2009	0.026	8/16/2009	0.111		
5/21/2009	0.026	8/17/2009	0.098		
5/22/2009	0.024	8/18/2009	0.094		
5/23/2009	0.020	8/19/2009	0.112		
5/24/2009	0.021	8/20/2009	0.114		
5/25/2009	0.021	8/21/2009	0.074		
5/26/2009	0.020	8/22/2009	0.064		
5/27/2009	0.021	8/23/2009	0.077		
5/28/2009	0.022	8/24/2009	0.081		
5/29/2009	0.016	8/25/2009	0.041		
5/30/2009	0.020	8/26/2009	0.051		
5/31/2009	0.019	8/27/2009	0.079		
6/1/2009	0.018	8/28/2009	0.096		
6/2/2009	0.019	8/29/2009	0.106		
6/3/2009	0.021	8/30/2009	0.108		
6/4/2009	0.020	8/31/2009	0.114		
6/5/2009	0.017	9/1/2009	0.118		
6/6/2009	0.014	9/2/2009	0.125		
6/7/2009	0.034	9/3/2009	0.127		
6/8/2009	0.027	9/4/2009	0.118		
6/9/2009	0.027	9/5/2009	0.117		
6/10/2009	0.025	9/6/2009	0.098		

Notes
[a] *Levelogger installed* [b] *Water level was below the levelogger*