Wildlife Habitat Rating Data Submission Standards

Prepared by
Ministry of Sustainable Resources Management
Resource Information Branch
for the Terrestrial Ecosystems Task Force
Resources Information Standards Committee

March 2004

Version 2.2

Additional Copies of this publication can be purchased from:

Government Publications Centre
Phone: (250) 387-3309 or
Toll free: 1-800-663-6105
Fax: (250) 387-0388
www.publications.gov.bc.ca

Digital Copies are available on the Internet at:

http://srmwww.gov.bc.ca/risc/index.htm

Preface

This Standard replaces *Standard for Wildlife Habitat Rating (WHR) Digital Data Capture in British Columbia Version 1.0* (RIC, 2000).

This Standard works in conjunction with the Resources Information Standards Committee's (RIC) *British Columbia Wildlife Habitat Rating Standards*, (RIC, 1999), *Standards for Terrestrial Ecosystem Mapping (TEM) Digital Data Capture in British Columbia*, (RIC, 2000) and the *Standard for Terrestrial Ecosystem Mapping in British Columbia* (RIC, 1998).

Abstract

This document sets out procedures and rules for capturing, storing, and distributing wildlife habitat data for the ministry's GIS (Geographic Information Systems) and other database systems. Its goal is to help the province acquire and administer this data in an organized fashion throughout the province and commensurate with the objectives of RISC.

For more information, visit the Wildlife Habitat Ratings home page at http://srmwww.gov.bc.ca/wildlife/whr/index.html.

Acknowledgments

The Resources Information Standards Committee (RISC) members are resource specialists from a number of professional disciplines and represent Provincial, Federal, First Nation and private sector agencies and other resource interests. RISC's objectives are to develop a common set of standards and procedures for provincial resource inventories, as recommended by the Forest Resources Commission in its report 'The Future of our Forests".

For further information about the Resources Information Standards Committee and its various Task Forces, please visit the RISC web site at http://srmwww.gov.bc.ca/risc/

Table of Contents

List of Tables

Introduction

Purpose

The *Wildlife Habitat Rating Data Submission Standards* draw heavily upon the *British Columbia Wildlife Habitat Rating Standards*, the *Standards for Terrestrial Ecosystem Mapping (TEM) Digital Data Capture in British Columbia*, and the *Standard for Terrestrial Ecosystem Mapping in BC*.

The *Wildlife Habitat Rating Data Submission Standards* (WHR DSS) describe how to capture, store, and deliver digital data for wildlife habitat ratings in British Columbia. These data, including metadata, ecosystem unit data, and wildlife ratings are suitable for digital data exchange among business, government, the research community, and the public.

The WHR DSS aim at providing mappers, contractors, government custodians, and users with consistent criteria for management of wildlife habitat rating data. It is anticipated that all mapping projects initiated by the B.C. government will comply with the recommendations of the Resources Information Standards Committee (RISC). The WHR DSS will provide consistent terms of reference for mappers, correlators and data managers, whether they work in the districts, regions, or provincial custodian offices.

All comments about these standards should be emailed to WHR Custodian at 'whr_mail@victoria1.gov.bc.ca' with a subject line of 'WHR Data Submission Standards'.

Scope and Status

The WHR DSS include (1) a Data Standard section and (2) a Delivery Standard section.

1- Data Standard. This section includes information on the attributes collected for the WHR database and ratings tables, as well as the conventions used to code those attributes. Also included is an overview of the software tools that will assist WHR practitioners with capturing and checking validity of WHR data.

2- Delivery Standard. This section provides instructions about the location and formats practitioners are to use to deliver digital data.

Data Standard

Background and Scope

Each Wildlife Habitat Rating (WHR) contract requires delivery of one metadata file, one or more species accounts, one or more ratings tables, one or more check-validity reports, and a wildlife report. In addition, a WHR project may require delivery of one or more rating models. This section includes information on the fields, codes, definitions, and terminology used in the files.

Three software tools are available which will assist WHR practitioners with capturing and checking validity of WHR data. These software tools are part of the Ecosystem-based Resource Mapping System (see http://srmwww.gov.bc.ca/wildlife/whr/erm_system_flow.html).

Metadata

Each WHR project must include a metadata file (A template is available at: ftp://ftp.env.gov.bc.ca/dist/wis/whr/manuals/tsd/whr_bapid_mta.zip) containing the fields shown in Table 1. There should be one record for each ratings table included in the delivery.

Table 1. Fields contained in a WHR project's metadata file

Field#	Field Name	Descriptive Field Name	Description	Length	Type*	Case
1	Eco_Prj_Nm	Ecosystem Mapping Project Name	The name of the ecosystem mapping (EM) project to which the ratings apply. This name must match the PROJ_NAME field found in the EM project metadata.	40	Char	M
2	Wld_Prj_Ds	Wildlife Habitat Rating (WHR) Project Description	A brief description of the Wildlife Habitat Rating (WHR) project.	100	Char	M
3	PSIL	Polygon Survey Intensity Level	The sampling intensity characterized according to percentage of polygons that have been field inspected or density of inspections by area. Coding must follow Table 6-3 in the Standard for Terrestrial Ecosystem Mapping in British Columbia (RIC 1998). In addition the code '0' can be used for projects in which no polygons were field inspected.	1	Char	U
4	Year_Surv	Year Surveyed	The year (yyyy) in which the field inspection was performed. Mapper may use '0000' if no field inspection was performed.	4	Num	
5	Date_Rec	Date Recorded	The date (yyyy-mmm-dd) the ratings were last entered or modified.	10	Date	
6	Recor_Name	Recorder	The name of the person who entered the WHRs into	40	Char	M

		Name	the ratings table.			
7	Pack_Nbr	Version of Package Used	The version of Standards used for the WHR project. Package 1 - Standards prior to British Columbia Wildlife Habitat Rating Standards Version 2.0 (RIC, 1999). Package 2 - Standard for British Columbia Wildlife Habitat Rating Standards Version 2.0 (RIC, 1999). Enter 1 for package 1 and 2 for package 2.	1	Char	
8	Rat_Table	Ratings Table Name	The name of the CSV file that contains the associated ratings table.	17	Char	M
9	WLD_Report	Wildlife Report	The name of the digital file that contains the associated wildlife report.	16	Char	M
10	Wld_Bio	Wildlife Biologist	The name of the wildlife biologist responsible for the ratings.	40	Char	M
11	Org_Name	Consultant/ Department	The public or private-sector organization responsible for the wildlife ratings.	40	Char	M
12	Proj_Com	Ratings-table Specific Comments	This field may be used to record any pertinent information regarding the project or ratings table. At all times attempt to use referenced classifications which are well defined and understood in the science, or provide thorough definitions for the user.	500	Char	M

* Technically, a CSV file does not support field types. However, when this file is uploaded into Oracle tables in the warehouse, these field types will be used.

Species Accounts

Species accounts must use definitions, concepts, and terminology consistent with *BC Wildlife Habitat Rating Standards* at http://srmwww.gov.bc.ca/risc/pubs/teecolo/whrs/index.htm.

Ratings Tables

Ratings tables contain (1) Ecosystem Attributes, which define the ecosystem units, and (2) Rating Columns, which contain ratings. The ERM Ratings Table tool (see http://srmwww.gov.bc.ca/wildlife/whr/sta.html) can be used to generate and manipulate ratings tables.

1- Ecosystem Attributes. Depending on client needs, the WHR practitioner may include a variety of ecosystem attributes in a ratings table. The ecosystem attributes that must be included in a ratings tables are listed in Table 2. Field definitions must follow the *Standards for Terrestrial Ecosystem Mapping (TEM) Digital Data Capture in British Columbia*, (RIC, 2000) located at http://srmwww.gov.bc.ca/ecology/tem/manuals.html

Additional ecosystem attributes that are listed in the *BC Wildlife Habitat Rating Standards* (http://srmwww.gov.bc.ca/risc/pubs/teecolo/whrs/index.htm), described in the *Standard for Terrestrial Ecosystem Mapping in BC* (http://srmwww.gov.bc.ca/ecology/tem/manuals.html), with data formats provided in *Standards for Terrestrial Ecosystem Mapping (TEM) Digital Data Capture in British Columbia*, (RIC, 2000) (http://srmwww.gov.bc.ca/ecology/tem/manuals.html) may also be captured and submitted.

Table 2. Ecosystem attributes required in a WHR table

Field Name	Descriptive Field Name
ECO_SEC	Ecosection
BGC_ZONE	Bigeoclimatic Zone
BGC_SUBZON	Bigeoclimatic Subzone
BGC_VRT	Bigeoclimatic Variant
BGC_PHASE	Bigeoclimatic Phase
SITEMC_S	Site Map Code
SITE_MA	Site Modifier A
SITE_MB	Site Modifier B
STRCT_S	Structural Stage

2- Rating Columns. Depending on client needs, the WHR practitioner will include a variety of rating columns in a ratings table. Names of rating columns are made up of several pieces of information. The name consists of a 5-letter species code (no hyphen) followed by an underscore, followed by life requisites, followed by a season (if applicable). Species codes can be taken from *The Vertebrates of BC: Scientific and English Names* (http://srmwww.gov.bc.ca/risc/pubs/tebiodiv/index.htm). Table 3 contains sample names of rating columns and a brief statement of meaning.

Table 3. Sample names of rating columns in a WHR table.

Sample Rating Column Name	Meaning
MODHE_FDLIG	Food for General Living during Growing Season for Mule Deer
MODHE_LIG	General Living during Growing Season for Mule Deer
MOVCA_SHLIA	Security Habitat for General Living all Year for California Bighorn Sheep
BBAGO_THRE	Thermal Habitat for Reproducing for Barrow's Goldeneye

Check-validity Reports

The ERM Ratings Table tool (http://srmwww.gov.bc.ca/wildlife/whr/sta.html) contains a function named Check WHR Validity. This function checks the validity of a ratings table by checking if species codes are valid, if rating columns are named appropriately, and if rating schemes have been used consistently. After the Check WHR Validity function is run, a

textual report is automatically made by the tool. There must be one report for each ratings table, and each report must be included in the deliverables.

Widlife Report

The layout and contents should conform to client needs, and should use definitions, concepts, and terminology consistent with *BC Wildlife Habitat Rating Standards* (http://srmwww.gov.bc.ca/risc/pubs/teecolo/whrs/index.htm).

Rating Models

There is no standard for the layout of rating models. Normally a different model can be made for each rating column of a ratings table. It is advised that each model be saved in its own file so that when the models are stored in the provincial Oracle tables as 'blobs', they can be searched for and downloaded individually. Models built with the Resource Ratings Modeling tool (http://srmwww.gov.bc.ca/wildlife/whr/sta.html) should contain an Overview worksheet that gives a descriptive overview of the model.

Delivery Standard

Background and Scope

All Wildlife Habitat Rating (WHR) deliverables must be zipped into one file for delivery. This one file will contain one metadata file, one or more species accounts, one or more ratings tables, one or more check-validity reports, and a wildlife report. In addition, the file may contain one or more rating models. This section includes information on the location and naming convention of the delivered files.

Location

WHR digital data is delivered as one file to the province via this ftp site: ftp://ftp.env.gov.bc.ca/pub/incoming/whr). Anonymous login is used to access the ftp site.

After data is delivered to the ftp site, the province must be notified of delivery by an email to WHR Custodian (whr_mail@victoria1.gov.bc.ca). Include 'WHR <BAPID> Final Deliverables' in the subject line of the email, where <BAPID> is a 4-digit code described below.

Business-area Project ID

A Business-area Project ID (BAPID) should be obtained at the onset of a WHR project by emailing a request to WHR Custodian (whr_mail@victoria1.gov.bc.ca). In the email, include 'Request for WHR BAPID' in the subject line. The following information should be included in the body of the email.

> Project Name
> FIA Contract Number (if applicable)
> Client
> WHR Practitioner's Name
> QA Contractors (if known)
> Start Date of Project

File Naming Convention

All file names must be in lower case. All deliverables from one WHR project must be submitted as one zip file. Within the one zip file will be several zipped files.

One Zip File. All deliverables for a WHR project must be zipped into one zip file. This zip file must be named:

<p style="text-align:center;color:red;">whr_<BAPID>.zip</p>

Where

whr_	is a 3-letter, lower case code standing for Wildlife Habitat Ratings, followed by an underscore

<BAPID>	is a 4-digit code that uniquely identifies the WHR project.
.zip	is a period and a 3-letter extension to indicate the file is a zipped file.

Several Zipped Files. All files within the zip file must start with 'whr_' and include the 4-digit BAPID. Sample file names for WHR deliverables are listed in Table 4.

Table 4. Naming Convention for WHR deliverables.

Suffix	Format (extension)	Sample*	Meaning
a 5-letter species code	pdf or rtf	whr_4210_modhe.pdf	Species account for Mule Deer
a 5-letter species code plus life requisite	variable	whr_4210_modhe_fdliw.xls	Ratings model for food for Mule Deer for general living during winter
mta	csv	whr_4210_mta.csv	Metadata for a WHR project. A template is available at: ftp://ftp.env.gov.bc.ca/dist/wis/whr/manuals/tsd/whr_bapid_mta.zip
rpt	pdf or rtf	whr_4210_rpt.pdf	Report for a WHR project
rpt_ap#	variable	whr_4210_rpt_apa.pdf	Appendix to the wildlife report. The 'a' after '_ap' indicates this is appendix A.
rt##	csv	whr_4210_rt01.csv	Ratings table; the 01 is a unique number that distinguishes this ratings table from other ratings tables that may be delivered for this WHR project
rt##_cvr	txt	whr_4210_rt01_cvr.txt	Check-validity results report from the Check WHR Validity function of the ERM Ratings Table tool (http://srmwww.gov.bc.ca/wildlife/whr/sta.html).

* Not all possible permutations of file names are listed.

References

BC Ministry of Forests and BC Ministry of Environment. 1998. *Field manual for describing terrestrial ecosystems*. BC Min. For. and BC Min. Environ., Lands and Parks, Victoria, BC.

Luttmerding, H., D.A. Demarchi, E.C. Lea, D.V. Meidinger and T. Vold. 1990. *Describing ecosystems in the field*. MOE Manual 11, 2nd ed., Victoria, Ministry of Environment, Lands and Parks and Ministry of Forests.

Resources Inventory Committee. 2000. *Vertebrates of BC: Scientific and English names. Standards for components of BC's Biodiversity No.2*. Version 2.1. Ministry of Environment, Lands and Parks, Resources Inventory Branch, Victoria, BC.

Resources Inventory Committee. 1999. *British Columbia Wildlife Habitat Rating Standards*. Version 2. Terrestrial Ecosystems Task Force. Ministry of Environment, Lands and Parks, Resources Inventory Branch, Victoria, BC.

Resources Inventory Committee. 1998. *Standard for terrestrial ecosystem mapping in British Columbia*. Terrestrial Ecosystems Task Force, Ecosystems Working Group. Ministry of Environment, Lands and Parks, Resources Inventory Branch, Victoria, BC.

Resources Inventory Committee. 2000. *Standard for Wildlife Habitat Rating (WHR) Digital Data Capture in British Columbia Version 1.0*. Terrestrial Ecosystems Task Force. Ministry of Environment, Lands and Parks, BC.