



Harvest Residue Compiler



User Guide

Manual Version 4.0

HRC Version 1.6.0

April 27, 2023

Contents

1.	Introduction	4
2.	General HRC Functions	4
2.1.	Saving HRC Data	4
2.2.	Uploading an Existing HRC or EFW File to HRC.....	5
2.3.	HRC Software Trouble Shooting and Feedback	6
3.	Large Populations.....	7
3.1.	Using the Large Population Sample Plan Template	7
3.2.	Manually Creating a Large Population Sample Plan or Entering a Block.....	7
3.3.	Creating a Batch in a Large Population Sample Plan	12
3.4.	Updating a Large Population Sample Plan.....	13
3.5.	Creating a New Large Population Sample Plan.....	14
3.6.	Compilation and Submission of Large Population Survey Results.....	14
3.6.1	Compilation and Submission of Large Population Sample Blocks	14
3.6.2	Compilation and Submission of Large Population Non-Sample Blocks	15
4.	Aggregate Populations.....	16
4.1.	Aggregate Block Randomizer Process for Populations >200ha	16
4.1.1	Aggregate Randomizer Block List.....	16
4.1.2	Randomized Block Selection Process.....	17
4.2.	Aggregate Populations <200ha	17
4.3.	Sample Plan Information	17
4.4.	Creating a Sample Plan Using the Aggregate Sample Plan Template.....	23
4.5.	Manually Creating a Sample Plan or Entering a New Block in HRC	26
4.5.1.	Entering Stratum information in the ‘Stratum Data’ Tab for ‘Sample blocks’	29
4.5.2.	Reviewing the “Estimated” and/or “Final” Net Waste Area on the “Finish” TAB for ‘Sample Blocks’	30
4.5.3.	Entering the “Estimated” and/or “Final” Net Waste Area on the “Finish” TAB for ‘Non-Sample Blocks’	31
4.6.	Editing and Deleting Aggregate Sample Plan Data	32
4.6.1.	‘Pre-Endorsement’ Edits and Deletions to a Sample Plan	32
4.6.2.	‘Post Endorsement’ Edits to a Sample Plan	33
4.6.3.	‘Post Survey Data Upload’ Edits to a Sample Plan	34
4.6.4.	Deleting Stratums	35

4.7.	Endorsing a Sample Plan	36
4.8.	Plot Allocations in the Aggregate Sample Plan	38
4.8.1.	Dispersed and 'Other Accumulation' Stratums and Plot Allocation	39
4.8.2.	Pile Stratums and Plot Allocation – Sample Plan Implementation	40
4.9.	Generating a Sample Plan Report	41
4.10.	Uploading Survey Data to an Aggregate Sample Plan	42
4.11.	Viewing Survey Data in the Aggregate Sample Plan	43
4.12.	Generating XML Files from the Aggregate Sample Plan	46
4.12.1	Compiling 'Non-Sample Blocks' using the 'Non-Sample' Compiling Spreadsheet.....	47
4.13.	Creating Block Type Summary Reports from an Aggregate Sample Plan	52
4.13.1	Individual Block Type Summary Reports	52
4.13.2	Population Block Type Summary Reports.....	53
4.14.	Creating Aggregate Sampling Statistics Report	54
5.	Single Block Populations	55
5.6.	Uploading Survey Data for a Single Block Population.....	55
5.7.	Generating a Block Type Summary Report for a Single Block Population	56
5.8.	Generating a Sampling Statistics Report for a Single Block Population.....	56
5.9.	Generating an XML File for a Single Block Population.....	57
6.	Troubleshooting.....	59
6.1.	Sample Plan Template Not Uploading to HRC	59
6.2.	Sample Plan Not Endorsing.....	60
6.3.	Sample Plan Report Not Generating.....	61
6.4.	Sample Plan Report has No Values	62
6.5.	Survey Data (.efw file) is Not Uploading to the Aggregate Sample Plan	62
6.6.	BTS Report, Sampling STATS Report or XML is Not Generating	63
6.7.	BTS Report is Missing a Stratum	64
6.8.	XML has a Stratum With No Volumes.....	64
6.9.	Percent Estimate Stratum Volumes Not Matching.....	65
6.10.	Duplicate Stratum Type In WAA	65
6.11.	Cannot Find the Downloaded File from HRC	65
6.12.	HRC Not Allocating Plots to Pile Stratums When the 'Actual' Plot Plan Method is Used.....	65
6.13.	Survey Date Not populating for 'non-sample blocks'	66
6.14.	Blank Survey date when uploading old HRC file	67

Harvest Residue Compiler User Guide

6.15. Final Attempt 67
6.16. Technical Help..... 67

1. Introduction

This user guide describes the process for using the Harvest Residue Compiler (HRC) to create waste survey plans and compile the volume of waste and residue remaining on harvested areas.

HRC is used for planning aggregate population sample designs as well as accepting and compiling EForWasteBC survey files (EFW).

HRC is used in conjunction with the Provincial Logging Residue and Waste Measurement Procedure Manual – Interior Version (referred herein as the Waste Manual). In case of any conflict of information between the HRC User Guide and the Waste Manual, the Waste Manual will take precedence.

Compiled volumes from HRC are submitted to the Waste System for billing through the [Electronic Submission Framework \(ESF\)](#) via an XML file.

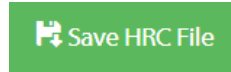
The Harvest Residue Compiler is optimized for use with the Microsoft Edge web browser and the application can be accessed by this link: <https://apps.nrs.gov.bc.ca/pub/hrc/>.

2. General HRC Functions

2.1. Saving HRC Data

The Harvest Residue Compiler does not store data. It is up to the Users, to manually save new HRC files as well as any changes made to an existing HRC file to their PC and re-name the file accordingly. To reduce the risk of lost data, save the updated .hrc file regularly.

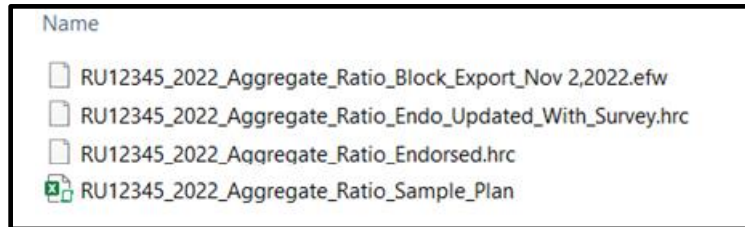
1. To save a new file or any recent changes to a file while working in HRC, select the ‘Save HRC File’ button that is located at the top of each screen.



2. Once the save button is selected a prompt will appear reminding users to note where the file has been downloaded, to choose a unique file name and to exercise caution as to avoid overwriting an existing file.
3. Select the ‘Save HRC File’ button again, and a .hrc file will be generated and downloaded to your PC. This does not overwrite an existing .hrc file – it creates a ***new*** file. Users must select a location to save the .hrc file on their PC and name it accordingly so that it is easily identifiable for future use.



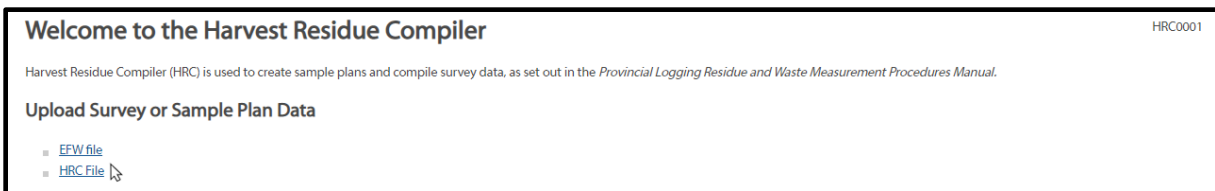
Tip: Name the file in a way that will allow you to remember which sample plan or survey data file you are creating. For example, name the file using the reporting unit number, year of the survey plan and stage of development (i.e., “RU12345_2022_AggregateRatio_endorsed.hrc”).



2.2. Uploading an Existing HRC or EFW File to HRC

To upload a previously created HRC file or to upload an EForWasteBC survey data file (EFW file) for compiling, follow the steps outlined below:

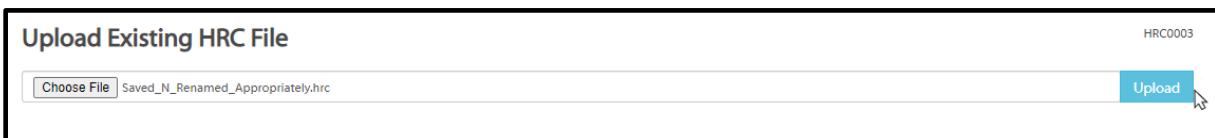
1. Navigate to the HRC Home screen.
2. To upload an EFW file, select the ‘EFW file’ link under the ‘Upload Survey or Sample Plan Data’ header on the HRC Home screen. To upload an HRC file, select the ‘HRC file’ link under the same header.



3. Users will be transported to the ‘Upload Existing EFW file’ screen (if uploading an EFW file) or the ‘Upload Existing HRC File’ screen (if uploading an HRC file). Choose the desired EFW or HRC file to upload by selecting the ‘Choose File’ button.



4. After the appropriate file is chosen, select the ‘Upload’ button and the file will upload.



5. If there are no errors in the file, it will upload and be viewable in HRC.

2.3. HRC Software Trouble Shooting and Feedback

If HRC Users experience any software problems, follow these steps below:

- Step 1: Review detailed instructions within the guide,
- Step 2: Attempt to troubleshoot the issue using the troubleshooting techniques outlined in section 6 of the guide,
- Step 3: If the steps outlined above does not solve the issue, or if you have feedback to the continuous improvement of this guide or HRC itself, please contact the District or Area Waste Specialist for technical assistance. [Contact information](#) can be found in the 'Troubleshooting' section within the guide.

3. Large Populations

As of April 1, 2022, Large Populations are no longer available for waste survey populations.

3.1. Using the Large Population Sample Plan Template

The most efficient way to create a Large Population sample plan is to enter the population data into the HRC Sample Plan template.

1. Obtain the applicable sample plan template from the HRC home screen.
2. Read the instructions contained within the first tab of the workbook. Then, the sample plan data is entered in the “Population” tab.
3. Once this is complete, the sample plan template can be uploaded into the HRC application to create the sample plan.
4. Navigate to the HRC home page and click on the “Upload Sample Plan Data” link.
5. Use the “Browse” button to locate the file to be uploaded, and then use the blue “Upload” button to upload the data.
6. If there are any data issues, you will receive a warning. You must correct all data issues before proceeding with the upload.
7. If there are no data issues, the system will display the data on the Sample Plan screen, as shown below.
8. By default, only some of the data fields will be displayed, but there is an option to “Show All Columns”.

Tip: Name the sample plan file in a way that will allow you to remember which sample plan you are creating. For example, name the file using the reporting unit number and the year of the survey plan (i.e., “RU12345_2022.xls”).

The screenshot shows the 'Sample Plan' interface. At the top, there is a header 'Sample Plan' and a section for 'Upload Additional Blocks' with a '(Template)' link, a 'Browse...' button, and an 'Upload' button. Below this is a 'Search Criteria' section with several filters: 'Reporting Unit' (dropdown: All), 'Batch Number' (dropdown: All), 'Waste Assessment Area Status' (dropdown: All), 'Licence' (text input), 'Cutting Permit' (text input), 'Sampling Method' (text input), and 'Block' (text input). There is a 'Show All Columns' link and a 'Sample Plan Block Count: 20' indicator. A search bar is located at the bottom right of the search criteria section. The main part of the interface is a table with the following columns: Reporting Unit, Batch, To Survey, Licence, Cutting Permit, Cutblock ID, Waste Assessment Area Status, Ready for Survey Date, Final Net Waste Area ha, BGC Zone, and User Selected Criterion 1. The table contains two rows of data.

	Reporting Unit	Batch	To Survey	Licence	Cutting Permit	Cutblock ID	Waste Assessment Area Status	Ready for Survey Date	Final Net Waste Area ha	BGC Zone	User Selected Criterion 1
<input type="checkbox"/>	742			1	1	HB21	Complete	20200101		CWH	Skidder
<input type="checkbox"/>	742			1	2	HB22	Complete	20200102		CWH	Skidder

3.2. Manually Creating a Large Population Sample Plan or Entering a Block

To manually create a sample plan, follow the directions below:

1. Navigate to the HRC Home Screen
2. Click on the hyperlink to manually enter sample plan data for the Coast or Interior as applicable
3. The system will present the following page where you must enter the cut block data.

The screenshot displays the 'Harvest Residue Compiler' web application interface. The header includes the British Columbia logo and navigation links: Home, Upload HRC, Upload Sample Plan, and Contact Us. The main content area is titled 'Manually Enter Large Population Sampling Plan Data' with a reference code 'HRC0016'. Below the title is a section for 'Waste Assessment Area Details' containing several input fields: Reporting Unit, Licensee, Licence, Cutting Permit, Cutblock ID, Timber Mark, Waste Assessment Area Logging Status (a dropdown menu with an information icon), and Ready for Survey Date. Red asterisks are placed to the right of the Licensee, Licence, Timber Mark, and Waste Assessment Area Logging Status fields, indicating they are required.

Note: each of the fields with an “information” icon will allow the User to hover and get a definition. If you cannot see this popup, please check your computer settings to ensure that you allow popups on this site.

The following is a list of the fields and instructions for entering the data correctly. At the time of creating a sample plan some fields are optional; however, some of the fields marked as optional are required to create the final submission for the Waste System, so it is recommended that all values are entered as soon as possible.

Note: HRC does not validate the Licence, CP, Cutblock ID, or Timber Mark; therefore, the submitter must ensure the data entered for each field is accurate.

Field Name	Format	Required?	Description of Data and Validation Rules
Reporting Unit	Number	Optional*	Waste system Reporting Unit, up to 12 numbers Optional until ready for submission to WASTE
Licensee	Text	Yes	Full Licensee name, up to 60 characters
Licence	Text	Yes	Tenure number, up to 10 characters
CP	Text	Optional*	Cutting Permit number, up to 3 characters * Required if issued under a CP
Cutblock ID	Text	Optional*	Block name, up to 10 characters Must match Cutting Permit (CP) block submission name * Required unless no block name exists in FTA
Timber Mark	Text	Yes	Approved Cutting Permit Timber mark, up to 6 characters
Waste Assessment Area Logging Status	Drop Down List	Yes	Active, Complete, Not Started
Ready to Survey Date	Date (YYYYMMDD)	Optional*	Refer to Waste Manual for definition. * Required for compilation
Harvest Status	Drop Down List	No	Waste System Codes: Complete, Incomplete, N/A
Year Logged From	Number (0000)	Yes*	* Required prior to xml creation, the year harvest commenced
Year Logged To	Number (0000)	Yes*	* Required prior to xml creation, the year harvest completed) Must be on or after "Year Logged From"
Estimated Waste Area (ha)	Number (999.99)	Yes	Estimated Block Net Waste Area Must be >= 2.0 ha
Final Waste Area (ha)	Number (999.99)	Optional*	Must be entered after survey is complete

Field Name	Format	Required?	Description of Data and Validation Rules
Estimated m3/ha	Number (000.0)	Optional*	All species and grades, excepting 6 (interior) and Z (interior and Coast) * Required once logging status is complete
BGC Zone (Interior only)	Drop Down List	Yes	Biogeoclimatic zone of the cutblock
Benchmark (Interior only)	Number (00)	Yes	Benchmark for the cutblock
Mature or Immature (Coast only)	Drop Down List	Yes	Maturity of the cutblock from the cruise
Conventional or Helicopter Harvest Method (Coast only)	Drop Down List	Yes	Harvest method used in the cutblock
User Selected Criterion 1	Drop Down List	Yes	Up to 6 values that correlate to the waste levels in the waste assessment area, up to 30 characters
User Selected Criterion 2	Drop Down List	Optional	Up to 6 values that correlate to the waste levels in the waste assessment area, up to 30 characters
Douglas Fir	Number (000)	Enter as applicable	Species % from Cruise
Spruce	Number (000)		
Balsam	Number (000)		
Lodgepole Pine	Number (000)		
Red Cedar	Number (000)		
Hemlock	Number (000)		
Larch	Number (000)		
White Pine	Number (000)		
Cypress	Number (000)		
Alder	Number (000)		
Aspen	Number (000)		
Birch	Number (000)		
Cottonwood	Number (000)		
Maple	Number (000)		

Field Name	Format	Required?	Description of Data and Validation Rules
Whitebark Pine	Number (000)		
Yellow Pine	Number (000)		

4. Once all the data has been entered the screen, scroll to the bottom of the screen where the following options will be displayed:
 - a. Return to Plan button.
 - i. This button is very useful to navigate back to see the sample plan data screen in a summary fashion, but you must click on one of the green buttons first to save the data you have just entered. Once you have done that, the red button to return to the sample plan will show the data in a summary screen.
 - ii. **If you click on this button without saving your data, it will be lost, and you will have to start over again!**
 - b. Save and Return to Sample Plan
 - i. Click on this to navigate to the sample plan screen.
 - c. Save and Add Another button.
 - i. Use this button if you have more than one cutblock to enter manually.

Once you click on the green button, the system will validate the data. Any errors will be highlighted in red. Add or correct the data as needed and continue.

5. Save the data.
 - a. To do so, click on the green button “Save HRC File” at the top right of the screen:
 - b. You will be prompted to save your file and you may choose an appropriate file name and location on your PC.
 - c. The file will have a file extension of .hrc

3.3. Creating a Batch in a Large Population Sample Plan

Once all the blocks in the sample plan population have been entered into HRC and validated, a batch must be created to identify the blocks to be sampled.

A batch should only be created once no changes to the cutblocks contained within the sample plan are anticipated. See the Amendments section of the Waste Manual for more information.

The process for creating initial and subsequent batches is:

1. Batch 1 can be created when enough cutblocks have a waste assessment area logging status of Complete.
 - a. The remaining (active or not complete) cutblocks are retained in the system for subsequent batches.
 - b. The minimum population size must result in a sample size of five cutblocks using the sampling frequency developed for the full population.
2. Click on the blue button “Create Batch” on the bottom left of the screen



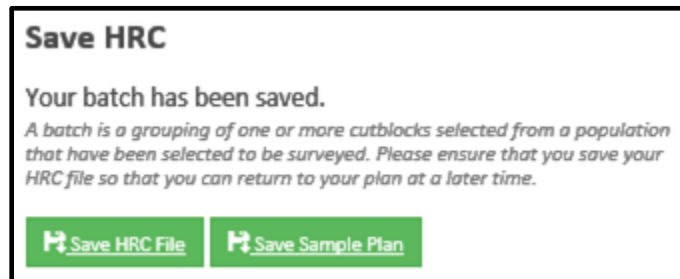
3. The Sample Plan Selection screen will be displayed. On this screen:
 - a. Several fields on this screen are pre-set and cannot be changed.
 - b. An option is presented to increase the minimum sample size if desired. In this user defined field, enter in the number of cutblocks to be sampled (when it is greater than the minimum).
 - c. Once the selections are completed, click on the blue button “Save Population.”

A screenshot of the "Sample Plan Selection" screen. It features several sections with radio button options and input fields. The "Ratio Adjustment Sampling?" section has "Yes" selected. The "Please choose a sampling method for spot accumulation strata:" section has "Plot Sampling" selected. The "Please choose a sampling method:" section has "Ratio/Ratio" selected. There are two input fields for "Minimum Sample Size" and "User Defined Sample Size", both containing the value "20". At the bottom, there are two buttons: "Cancel and Return to Plan" (grey) and "Save Population" (blue).

4. On the Sample Plan Confirmation screen, fill out the required fields and professional certification statement.
 - a. If you do not have the correct accreditation, you cannot signoff a sample plan.
5. Click the green button “Create Batch from Blocks” at the bottom of the screen:

A green rectangular button with the text "Create Batch from Blocks" in white.

6. The system will display the following screen.



7. Save your work by clicking **both** green buttons.
 - a. It is your responsibility to save your work. If you fail to save the HRC file and Sample Plan on your computer, you will have to recreate your sample plan.
8. HRC will determine the cutblocks from the population to be sampled. The blocks to be sampled will be displayed on the Sample Plan screen and in the Sample Plan report.

3.4. Updating a Large Population Sample Plan

To update information on an existing sample plan:

1. Upload the HRC file from your PC if required.
2. Search for the cutblock on the Sample Plan screen and select it.
3. The system will display the “Edit Cutblock” screen, as shown below.
4. Change the data as required and save.

Edit Cutblock HRC0007

Return to Plan Save and Add Another Save and Return to Sample Plan

Waste Assessment Area Details

Sampling Method: Ratio / Ratio

Reporting Unit: 30022

Licensee: Company A *

Licence: TFL1 *

Cutting Permit: 1

Cutblock ID: RED231 ✕

Timber Mark: 1/1 *

Waste Assessment Area Logging Status: Complete *

Ready for Survey Date: 20200101 *

3.5. Creating a New Large Population Sample Plan

When working in HRC on a sample plan, to create a new sample plan:

1. Save the HRC file, and
2. Click on the “Home” button.

Clicking on this button **will clear all existing data** from the program so be sure to save the HRC file on your PC before starting a new plan.

3.6. Compilation and Submission of Large Population Survey Results

HRC currently does not have the ability to upload or compile the ‘non-sample blocks’ in large populations. Therefore, the process for compiling large populations is different for ‘sample blocks’ vs. ‘non-sample blocks’. **All sample blocks and ‘non-sample blocks’ must be submitted to the Waste System under the same reporting unit number for each client.**

3.6.1 Compilation and Submission of Large Population Sample Blocks

In a large population, a sample block is a block that was identified for field surveying during the ‘batching’ process in the sample plan (refer to section 3.3 for more information).

Each sample block that was field surveyed in the large population must be compiled individually in HRC. The process for compiling each waste assessment area is identical to that of Single Block Populations, therefore refer to Section 5 of this manual for instructions on how to compile and generate the necessary reports and XML files for each WAA.

After each waste assessment area is compiled, upload and submit the associated XML file, along with any other required information, to the Waste System.

3.6.2 Compilation and Submission of Large Population Non-Sample Blocks

In a large population, a 'non-sample block' is a waste assessment area that was identified as not requiring a field survey during the batching process in the sample plan (refer to section 3.3 for more information). HRC does not have the ability to compile large population 'non-sample blocks' or create XML files for uploading to the Waste System, therefore they must be compiled outside of HRC by Timber Pricing Branch.

Waste volume results for the 'non-sample blocks' are dependant on the surveyed results of the sample blocks. Any change to the sample block results will impact the 'non-sample blocks' waste volumes. Because of this, compilation of 'non-sample blocks' will commence after all sample block waste results have been submitted and approved in the Waste System.

After the sample block waste results have been submitted and approved in the Waste System, the following data sets must be sent to Timber Pricing Branch (Jason.m.smith@gov.bc.ca) for compilation and cc'ing the appropriate District and Area staff for review of the survey data:

- Completed survey data .efw files for each sample block,
- .hrc file of the final, completed sample plan, and
- Licensee contact information for return of the compiled results.

Note: District and Area staff may ask for further information to aid in their review of the survey.

Timber Pricing Branch will email the compiled results, in .xml format, for the 'non-sample blocks' back to the licensee contact along with instructions for submitting to the Waste System.

4. Aggregate Populations

4.1. Aggregate Block Randomizer Process for Populations >200ha

For aggregate populations >200ha in size, there is potential for reduced sampling of blocks within the population.

Licensees may submit a list of all the blocks in the population to Timber Pricing Branch using the 'Aggregate Randomizer Block List' spreadsheet, located on the [Ministry Residue and Waste webpage](#).

If a randomizer request is not submitted, all waste assessment areas in the population must be included in the sample plan in HRC and must be identified as 'sample blocks'.

If a randomizer request is submitted, all waste assessment areas in the population must be included in the sample plan. 'Sample blocks'; and/or 'non-sample blocks' must be properly identified in the sample plan following the steps outlined within this guide and as per the results from the Randomized Block Selection Process.

4.1.1 Aggregate Randomizer Block List

Users must fill out the following information prior to submitting to the Ministry for 'sample block' selection:

1. Date submitted to Timber Pricing Branch
2. Endorsing Professional
3. Professional Designation of Endorsing Professional
4. Licence (registration) Number of Endorsing Professional
5. Submitter's name
6. Submitting licensee(s) name and client number

Note: *if more than one licensee has blocks included in the aggregate population then a signed sharing agreement must also be included with the submission.*

7. Individual block information
 - a. Licence
 - b. Cutting Permit (CP)
 - c. Block # (Blk #)
 - d. District

Note: *all waste assessment areas (WAA) within the aggregate population must reside in the same natural resource district, unless it is comprised of Woodlots/Community Forest Agreement licensees where they must reside within the same natural resource region.*

- e. Net Merchantable Area (ha)
 - i. from ECAS if appraised, or
 - ii. from FTA or GPS traverse of the net area for tabular rates.

When submitting the completed form ensure that the appropriate District and Area staff are cc'd on the emailed submission as well as the signing professional.

4.1.2 Randomized Block Selection Process

After receiving the submitted block list from the licensee, Timber Pricing Branch will put the list of blocks and the associated information through a randomized block selector spreadsheet. The spreadsheet uses a target sample size based on the equation:

$$= 200 + ((\text{Total Population ha} - 200) \times 0.33)$$

This will result in field sampling approximately 33% of the population area over 200ha. The actual number of hectares to be field sampled will vary because entire blocks are selected until the calculated target is achieved. The target is generally over-achieved by the addition of the last full block.

Timber Pricing Branch will email the results from the Randomized Block Selection Process back to the licensee representative which will identify 'sample blocks' and 'non-sample blocks' in the population.

The results from the Randomized Block Selection Process must be included with the submission to the Waste System.

All blocks included in 'Aggregate Randomizer Block List' must be included in the Aggregate Sample Plan and must be identified as 'sample blocks' or 'non-sample blocks' as per the results from the Randomized Block Selection Process.

4.2. Aggregate Populations ≤ 200 ha

Aggregate populations that have a net waste area < 200 ha in size do not use/submit the 'Aggregate Randomizer Block List' as all waste assessment areas will be 'sample blocks'. When creating the sample plan in HRC, enter all waste assessment areas in the population as 'sample blocks'.

4.3. Sample Plan Information

There are two ways to create a sample plan:

1. Fill out the Aggregate Sample Plan Template then upload it to HRC, or

2. Manually enter population information directly into HRC.

The information provided in the sample plan plays an important role in the flow of information from initial sample plan endorsement, the sample plan report, uploading survey data and compiling the survey results.

Below is a description of sample plan information present in the sample plan template and HRC. The table also outlines the stage at which the system will require the information to perform a specified function:

Field Name	Required for Sample Plan Endorsement?	Required for Sample Plan Report?	Required for Survey Data Upload?	Required for XML Generation?	Description of Data and Validation Rules
Earliest Ready for Survey Date (Logging Complete Date)	Yes	Yes	Yes	Yes	Used to determine the SPIF for plot allocation in the aggregate sample plan.
SPIF (Starting Point Interval Factor)	Yes	Yes	Yes	Yes	10% to 90%. Based on Earliest Ready for Survey Date. Used to determine the plot allocation in the sample plan.
Population Type	Yes	Yes	Yes	Yes	Autogenerated if Aggregate Sample Plan is being generated.
Survey Type	Yes	Yes	Yes	Yes	'Ratio' or 'SRS'
Reporting Unit #	Yes	Yes	Yes	Yes	Waste system Reporting Unit, up to 12 numbers.
Licence	Yes	Yes	Yes	Yes	Tenure number, up to 10 characters. Must match FTA.
Cutting Permit	Optional*	Optional*	Optional*	Optional*	Cutting Permit number, up to 3 characters. * Required if issued under a CP. Must match FTA.

Field Name	Required for Sample Plan Endorsement?	Required for Sample Plan Report?	Required for Survey Data Upload?	Required for XML Generation?	Description of Data and Validation Rules
Cutblock ID	Optional*	Optional*	Optional*	Optional*	Block name, up to 10 characters.
					Must match FTA.
					* Required unless no block name exists in FTA.
Timber Mark	Yes	Yes	Yes	Yes	Approved Cutting Permit Timber mark. Must match FTA. Up to 6 characters.
District Code	Yes	Yes	Yes	Yes	Enter District Code for the location of each WAA.
Licensee	Yes	Yes	Yes	Yes	Full Licensee name, up to 60 characters
Client Code	Yes	Yes	Yes	Yes	8-digit code unique to each licensee.
Harvest Status	Yes	Yes	Yes	Yes	Waste System Codes: Complete, Incomplete, N/A.
Ready to Survey Date (PLC date)	Yes	Yes	Yes	Yes	Refer to Waste Manual for definition.
Survey Date	No	No	Yes	Yes	Refer to Waste Manual for definition.
					'Sample blocks': User entered.
					'Non-sample blocks': Autogenerated based on the latest survey date from the 'sample block'.
Year Logged From	Yes	Yes	Yes	Yes	The year harvest commenced.

Field Name	Required for Sample Plan Endorsement?	Required for Sample Plan Report?	Required for Survey Data Upload?	Required for XML Generation?	Description of Data and Validation Rules
Year Logged To	Yes	Yes	Yes	Yes	The year harvest completed.
					Must be on or after "Year Logged From".
Waste Site Type Code (BGC zone)	Yes	Yes	Yes	Yes	Dry Belt, Transition Zone or Wet Belt.
Benchmark	Yes	Yes	Yes	Yes	Benchmark (m3/ha) for the cutblock. As per the Forest Residue and Waste Benchmarks and BEC document.
Sample Block	Yes	Yes	Yes	Yes	'Sample block' or 'non-sample block' as indicated in the Aggregate Randomizer Block List supplied by TPB. If the Aggregate Randomizer is not used, then all blocks must be 'sample' blocks.
Estimated WAA Net Area (ha)	N/A	N/A	N/A	N/A	Total Estimated WAA Net Waste Area including external associated RPs, etc. The net waste area is calculated using section 7.1.1 in the Waste Manual.

Field Name	Required for Sample Plan Endorsement?	Required for Sample Plan Report?	Required for Survey Data Upload?	Required for XML Generation?	Description of Data and Validation Rules
Final Surveyed Waste Net Area (ha)	No	No	Yes	Yes	Total Final WAA Net Waste Area including external associated RPs, etc. This area is used for compilation and submission into the Waste System. This area should match the Estimated WAA Net Area (ha).
Stratum Code	Yes*	Yes	Yes	Yes	Refer to table 9-2 in the Manual for appropriate stratum codes for each stratum type. Cold deck stratum types must be the same stratum type throughout the population. Standing tree stratum types must be sampled as the same stratum type throughout the aggregate population.
Assigned Plot Numbers (From)	No	Yes	Yes	Yes	Autogenerated starting plot number for the WAA/ stratum combination. Only assigned to 'sample blocks'. Populated after sample plan endorsement.

Field Name	Required for Sample Plan Endorsement?	Required for Sample Plan Report?	Required for Survey Data Upload?	Required for XML Generation?	Description of Data and Validation Rules
Assigned Plot Numbers (To)	No	Yes	Yes	Yes	Autogenerated last plot number for the WAA/stratum combination. Only assigned to 'sample blocks'. Populated after sample plan endorsement.
Estimated Stratum Area (ha)	Yes	Yes	Yes	Yes	Estimated Stratum Net Waste Area. Calculated using an Area Calculator spreadsheet. Pile stratum that use the 'Estimate' plot plan method must use an estimated stratum area (ha) of 0.01ha for each WAA/stratum combination.
Final Stratum Net Area (ha)	No	No	Yes	Yes	Used for compilation and submission into the Waste System. Any stratum combinations within a WAA containing 0.00 ha of final stratum net area should not be included in the WAA and deleted.
Plot Plan Method	Yes	Yes	Yes	Yes	The method, 'Actual' or 'Estimate', chosen to determine the number of piles for the sample plan.

Field Name	Required for Sample Plan Endorsement?	Required for Sample Plan Report?	Required for Survey Data Upload?	Required for XML Generation?	Description of Data and Validation Rules
Actual # of Piles	Yes*	Yes*	Yes*	Yes*	The actual # of piles that are present in the WAA. * if 'Actual' plot plan method is chosen.
Estimate # of Piles	Yes*	Yes*	Yes*	Yes*	Auto generated based on the total WAA estimated net area. Used to determine the number of plots for each WAA/ pile stratum combination. * if 'Estimate' plot plan method is chosen.
Estimate # of Piles	Yes*	Yes*	Yes*	Yes*	For determining pile plot spacing in the field, Surveyors must use the Actual # of piles on the block.

4.4. Creating a Sample Plan Using the Aggregate Sample Plan Template

To create an Aggregate sample plan using the excel-based Sample Plan Template, use the most recent Sample Plan Template from HRC and select the desired number of expected stratum types, prior to downloading.

Note: *If the aggregate population is greater than 200ha in size, licensees may submit the 'Aggregate Randomizer Block List' spreadsheet to Timber Pricing Branch, prior to creating the Aggregate sample plan. See section 4.1 above for details.*

To reduce the risk of errors uploading the sample plan template to HRC, it is recommended to ensure the same fonts and formatting is used if pasting information from another spreadsheet.

1. Navigate to HRC home screen and select "Generate Interior Aggregate Sample Plan Template".

Aggregate Populations

- [Generate Interior Aggregate Sample Plan Template](#)
- [Upload interior aggregate sample plan data \(Excel template\)](#)
- [Manually enter interior aggregate sample plan data](#)

2. Enter the number of expected stratum for each type. Ensure to select the correct number of stratum.

Note: If a stratum is missing from the sample plan template navigate back to the HRC home screen and re-generate the sample plan template with the correct number of stratum in each type. — Otherwise, the stratum can be included and updated to the sample plan, once the sample plan template has been uploaded to HRC. (See section 4.5 below).

Generate the Interior Aggregate Sample Plan Template HRC0048

Please Enter the Number of Stratum for each type before generating the template.

Number of Dispersed Stratum:

Number of Spot Accumulation (Pile) Plot Stratum:

Number of Percent Estimate and 100% Scale Stratum:

Number of Other Accumulation Stratum:

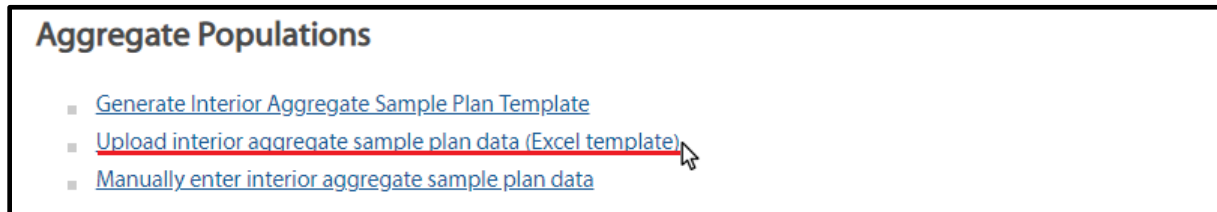
3. Select “Generate Sample Plan Template”. Once downloaded, save the spreadsheet to your PC and name it appropriately.

[Generate Aggregate Sample Plan Template](#)

4. Open the saved template and enter all the applicable fields for each waste assessment area in the population. **DO NOT fill in stratum information for ‘non-sample blocks’.**

Note: If a stratum is missing from the sample plan template navigate back to the HRC home screen and re-generate the sample plan template with the correct number of stratum in each type. — Otherwise, the stratum can be included and updated to the sample plan, once the sample plan template has been uploaded to HRC. (See section 4.5 below).

5. Once the sample plan template is filled out, it can be uploaded into the HRC application to create the sample plan.
6. Navigate to the HRC home page and click on the “Upload interior aggregate sample plan data (Excel template)” link, located under the Aggregate Populations header.



7. Use the “Browse” button to locate the sample plan template on your PC to be uploaded.

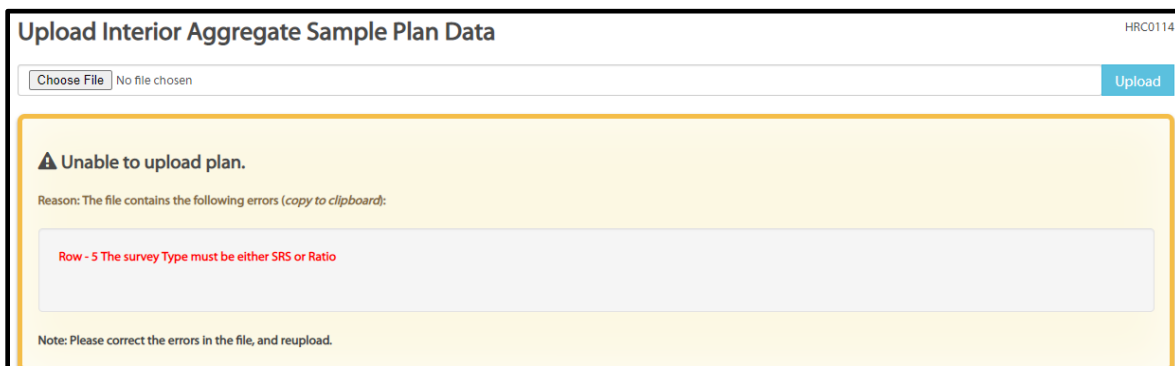


8. Use the blue “Upload” button to upload the data to HRC.

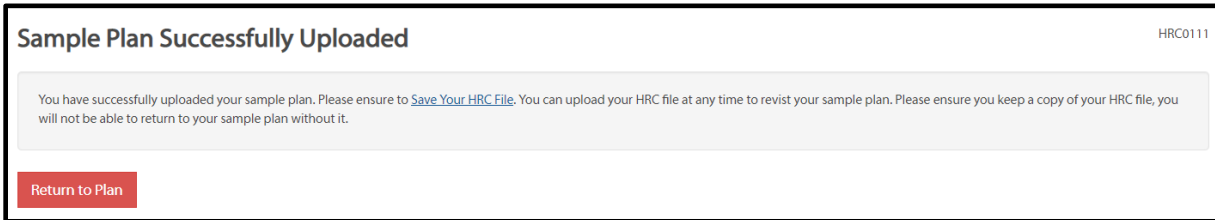


Note: Once uploaded into HRC, Users can make edits to the sample plan prior to sample plan endorsement.

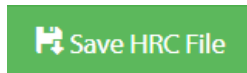
9. If there are any data issues, you will receive a warning or error message. You must correct all data errors before proceeding with the upload.



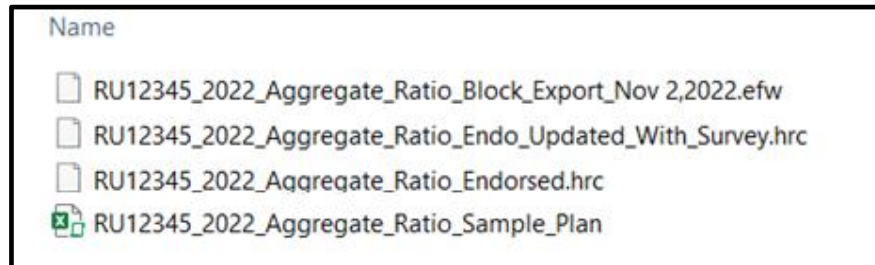
10. If there are no data issues, the system will display the data on the Aggregate Sample Plan screen, as shown below.



11. To reduce the risk of lost data, save the uploaded sample plan immediately after uploading the template by selecting the "[Save Your HRC File](#)" hyperlink, or by selecting the green "Save HRC File" button when viewing the Sample Plan.



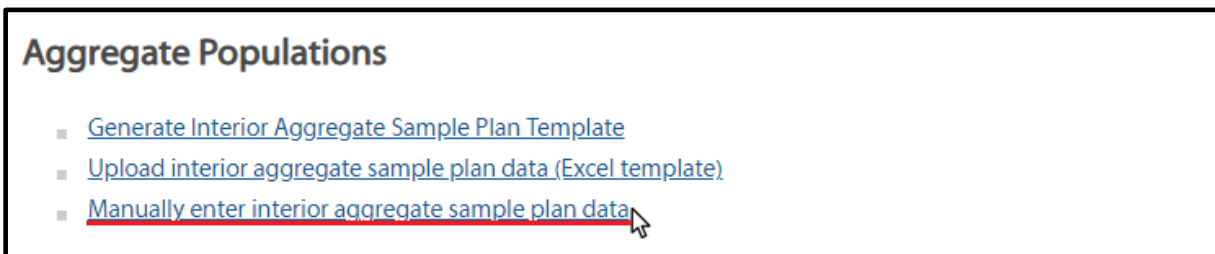
12. Name the file in a way that will allow you to remember which sample plan or survey data file you are creating. For example, use the RU number, year of the survey plan and stage of development: (i.e. "RU12345_2023_AggregateRatio_endorsed.hrc").



4.5. Manually Creating a Sample Plan or Entering a New Block in HRC

Another approach for creating a sample plan is to manually enter waste population information directly into HRC.

1. Navigate to the HRC Home Screen.
2. Click on the hyperlink "[Manually enter interior aggregate sample plan data](#)".



3. The system will present the following page where you must enter the SPIF and Survey Type (Ratio or SRS). Aggregate Population selection is locked and is already selected as Aggregate.

The screenshot shows a web form titled "Aggregate Population" with the identifier "HRC0101" in the top right corner. The form contains three input fields: "SPIF:" with a dropdown arrow, "Population Type:" with a text box containing the word "Aggregate", and "Survey Type:" with a dropdown arrow. A red asterisk is positioned to the right of the "Survey Type" field. At the bottom right of the form, there is a green button labeled "Create Aggregate Waste Assessment Area" with a mouse cursor pointing to it.

Note: The “SPIF” field is the value for the earliest ready for survey date (PLC date) in the population. This SPIF value facilitates determination of plot allocations in the sample plan. Refer to the Waste Manual for SPIF use and related mapping procedures.

4. Select the green “Create Aggregate Waste Assessment Area” button at the bottom of the population window. Users will be transported to the Aggregate Sample Plan – Waste Assessment Area Information screen as seen below.

The screenshot shows a web form titled "Aggregate Sample Plan - Waste Assessment Area Information" with a sub-header "Waste Assessment Area". The form contains the following fields:

- Reporting Unit:
- Licensee: *
- Client Code: *
- District Code: *
- Licence: *
- Cutting Permit: *
- Cutblock ID: *
- Timber Mark: *
- Harvest Status: *
- Ready for Survey Date: *
- Survey Date: *
- Year Logged From: *
- Year Logged To: *
- Waste Site Type Code: *
- Benchmark: *
- Sample Block: *

At the bottom right of the form, there are "Previous" and "Next" buttons.

5. Select each field to enter the available information for one waste assessment area in the population.
6. Make sure to populate all fields marked with an asterisk, as it's required for sample plan endorsement. The 'Sample Block' field must be populated in order to proceed to the stratum information tab.

Note: For aggregate populations >200ha in size Users may submit a list of all the blocks in the population to Timber Pricing Branch using the 'Aggregate Randomizer Block List' spreadsheet, located on the [Ministry Residue and Waste webpage](#).

If a randomizer request is submitted, all waste assessment areas in the population must be included in the sample plan. 'Sample blocks'; and/or 'non-sample blocks' must be properly identified in the sample plan as per the results from the Randomized Block Selection Process.

- Once finished, select the “**Next**” button on the bottom right of the screen to enter the associated stratum information for the waste assessment area.

4.5.1. Entering Stratum information in the ‘Stratum Data’ Tab for ‘Sample blocks’

The ‘Stratum Data’ tab allows Users to enter all associated stratum information for ‘**sample**’ waste assessment areas. ‘**Non-sample**’ WAA’s will not have stratum information. Therefore, no stratum codes will be entered. For ‘non-sample blocks’, only the “Estimated Block Net Area” and the “Final Surveyed Waste Net Area” must be entered as per section 4.5.3 in the guide, below.

- To create a new stratum that doesn’t currently exist in the population, select the green “New Stratum” button. Enter a recognized waste type code, as depicted in the waste manual, and fill out all other known information for the waste assessment area.

The screenshot shows the 'Stratum Data' tab in the Harvest Residue Compiler. The interface includes a navigation bar with 'Home', 'View Aggregate Plan', 'Changes', 'Endorsement', 'Upload Survey Data', and 'Contact Us'. A 'Save HRC File' button is visible in the top right. The main heading is 'Aggregate Sample Plan - Waste Assessment Area Information' with the ID 'HRC00102'. Below the heading are three tabs: 'Waste Assessment Area', 'Stratum Data' (selected), and 'Finish'. In the 'Stratum Data' tab, there are two buttons: 'New Stratum' (highlighted in green) and 'Add Existing Stratum'. Below these buttons is a table with the following columns: Stratum Type Code, Estimated Stratum Net Area (ha), Final Stratum Net Area (ha), Plot Plan Method, Actual # of Piles, Estimate # of Piles, Assigned Plot Numbers (From), Assigned Plot Numbers (To), and Delete. The table currently contains no data, with a message 'No data available in table' and 'Showing 0 to 0 of 0 entries' at the bottom.

The screenshot shows a modal form titled 'Stratum'. It contains the following fields: 'Stratum Type Code' with the value 'SR2X', 'Estimated Stratum NET Area' with the value '35.53', and 'Final Stratum NET Area' which is currently empty. At the bottom right of the form are two buttons: 'Save Stratum' and 'Cancel'.

2. To add an existing stratum that already exists in the population, select the “Add Existing Stratum” button. Select the desired stratum from the drop-down list. If the desired stratum is not listed, review step “1” above.

Important Reminder: Cold deck stratum must use the same stratum code throughout the aggregate population. Standing tree stratum (individual standing tree or standing trees in patches) must use the same stratum code throughout the aggregate population.

3. Once finished entering the stratum information for ‘sample’ WAA’s or to enter the “Estimated Block Net Area” and “Final Surveyed Waste Net Area” of ‘non-sample’ WAA’s select the “Next” button to navigate to the “Finish” tab.

4.5.2. Reviewing the “Estimated” and/or “Final” Net Waste Area on the “Finish” TAB for ‘Sample Blocks’

The “Finish” tab allows Users to view the “Estimated Block Net Area” and “Final Surveyed Waste Net Area”. These total areas must equal the total net waste area for the waste assessment area and include associated external right of way area as per specifications outlined in the Waste Manual.

WAA’s selected as ‘sample blocks’ will have the “Estimated Block Net Area” and “Final Surveyed Waste Net Area” auto populated from the sum of the total stratum areas, as inputted on the previous “Stratum Data” tab.

1. For ‘sample’ WAA’s review each field and ensure that they have been auto populated correctly as per the results input on the stratum data tab.

Home View Aggregate Plan Changes Endorsement Upload Survey Data Contact Us Save HRC File

Aggregate Sample Plan - Waste Assessment Area Information

HRC00102

Waste Assessment Area Stratum Data **Finish**

Area

Estimated Block Net Area: 30.01 ha

Final Surveyed Waste Net Area: 29.23 ha

Save and Add Another WAA Previous Finish

2. Select the “Finish” button in the bottom right of the screen to finalize entering data for the specific waste assessment area or select the “Save and Add Another WAA” button which will transport you to the Aggregate Sample Plan – Waste Assessment Area Information screen.

4.5.3. Entering the “Estimated” and/or “Final” Net Waste Area on the “Finish” TAB for ‘Non- Sample Blocks’

WAA’s selected as ‘non-sample blocks’ will not have stratum information and hence will require the “Estimated Block Net Area” and “Final Surveyed Waste Net Area” to be entered manually.

1. For ‘non-sample blocks’ enter the correct “Estimated Block Net Area” and “Final Surveyed Waste Net Area”.

The screenshot displays the 'Aggregate Sample Plan - Waste Assessment Area Information' page. The top navigation bar includes 'Home', 'View Aggregate Plan', 'Changes', 'Endorsement', 'Upload Survey Data', and 'Contact Us'. A 'Save HRC File' button is visible in the top right corner. The main content area features a 'Waste Assessment Area' tab and a 'Finish' button. Below this, there is a section titled 'Area' with two input fields: 'Estimated Block Net Area' and 'Final Surveyed Waste Net Area', both containing the value '10.01' and followed by 'ha'. At the bottom right, there are three buttons: 'Save and Add Another WAA', 'Previous', and 'Finish'.

2. Select the “Finish” button in the bottom right of the screen to finalize entering data for the specific waste assessment area or select the “Save and Add Another WAA” button which will transport you to the Aggregate Sample Plan – Waste Assessment Area Information screen.

Note: It is recommended to save the .hrc file after every waste assessment area is entered to avoid loss of data.


4.6. Editing and Deleting Aggregate Sample Plan Data

Editing and deleting functionality to the aggregate sample plan is dependant on whether the sample plan has been professionally endorsed. There is maximum flexibility for editing the sample plan prior to endorsement but after endorsement, functionality is limited to maintain sample integrity.

4.6.1. 'Pre-Endorsement' Edits and Deletions to a Sample Plan

Virtually all manually entered fields of the aggregate sample plan can be edited in HRC prior to endorsement. The only exception is the survey type, SRS or Ratio, which is locked down after entry.



To edit data for an existing waste assessment area, go to the View Aggregate Sample Plan Screen and select the row of information from the list of WAAs. Users will be taken to the Waste Assessment Information screen where all the WAA and stratum data elements can be edited.

Navigate to the 'Stratum Data' tab where Users have the option of editing or deleting stratum. Select the Red  icon on the row of the stratum to be deleted.

Aggregate Sample Plan - Waste Assessment Area Information HRC00102

Waste Assessment Area **Stratum Data** Finish

New Stratum Add Existing Stratum

Stratum Type Code	Estimated Stratum Net Area (ha)	Final Stratum Net Area (ha)	Plot Plan Method	Actual # of Piles	Estimate # of Piles	Assigned Plot Numbers (From)	Assigned Plot Numbers (To)	Delete
SR2X	31.6	30.66	N/A	N/A	N/A	1	23	
PROX	0.01	1.04	Estimate		28	1	11	

Showing 1 to 2 of 2 entries

Previous Next

To delete a waste assessment area from the sample plan in HRC, navigate to the View Aggregate Sample Plan Screen, select the Delete icon on the right-hand side of the row for the desired waste assessment area.

Aggregate Sample Plan HRC0106

Earliest Ready for Survey Date: 2021-03-30 Total # of Waste Assessment Areas: 3

SPIF: 70% Total Estimated Net Harvest Area (ha): 109.23

Population Type: Aggregate Total Final Net Harvest Area (ha): 109.44

Survey Type: Ratio Sample Plan Endorsed?: NO

Stratum Type Code	Sample Block Estimated Stratum Net Area (ha)	Sample Block Final Stratum Net Area (ha)	Minimum # of Prediction Plots for Stratum	Additional Plots For Stratum	Total Plots For Stratum	Measure Plots For Stratum	
SR2X	54.2	52.83	40	0	40	13	Delete
PROX	0.02	1.6	19	0	19	6	Delete

License	Cutting Permit	Cutblock ID	Reporting Unit #	District Code	Licensee	Client Code	Timber Mark	Harvest Status	Ready For Survey Date	Survey Date	Year Logged From	Year Logged To	Delete
B70000	1	1	123456	DSS	Forest Ree Professionals	00001234	70000	Complete	2021-03-30		1982	1983	Delete
B70000	1	2	123456	DSS	Forest Ree Professionals	00001234	70000	Complete	2021-03-30		1982	1983	Delete
B70000	1	323	12345	DSS	Forest Ree Professionals	00001234	Em123	Complete	2022-04-22		2021	2022	Delete

4.6.2. 'Post Endorsement' Edits to a Sample Plan

Sample plan endorsement locks down certain fields so they cannot be edited. (E.g., the 'Estimated Stratum Area (ha)' fields for plot-based stratums and the inability to add new waste assessment areas or plot-based stratums to the sample plan).

Most other fields in the sample plan can be edited and tracked in the change log which can be viewed by selecting the 'Changes' button at the top of the screen.

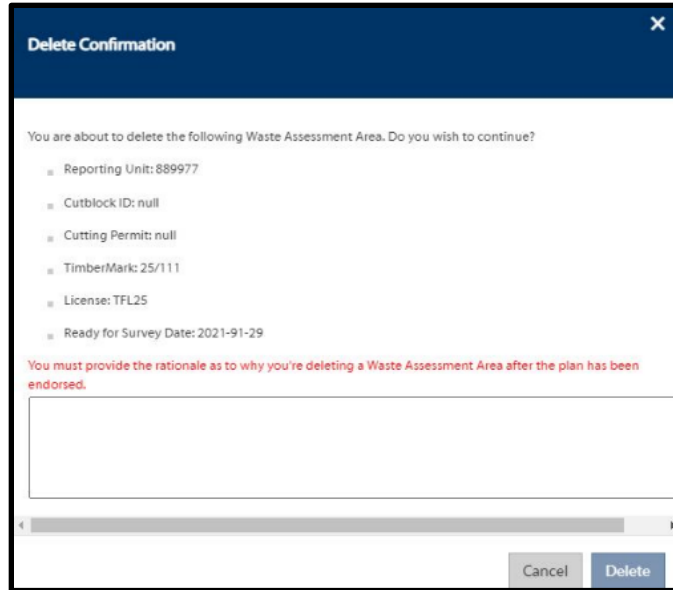
BRITISH COLUMBIA **Harvest Residue Compiler**

Home View Aggregate Plan **Changes** Endorsement Upload Survey Data Contact Us

View Edited Waste Assessment Area Records

Survey Data Deletions

In very rare situations, waste assessment areas can be deleted from the sample plan, after endorsement. Amendments to a sample plan are expected to be very rare and should only be related to issues that affect good forest management or other operational issues (i.e., wildfire or landslide occurred after the sampling plan was submitted). A professional rationale must be provided to and approved by the Ministry as per the Waste Manual prior to deletion. The approved rationale must be documented in the sample plan by filling out the 'Rationale' section of the pop-up window when the 'Delete' button is selected on the View Aggregate Sample Plan Screen.



All WAA deletions will be tracked in the 'Changes' log and viewable by selecting the 'Changes' button at the top of the HRC screen.

Status	Licence	Cutting Permit	Cutblock ID	Timber Mark	Benchmark	Stratum Code	Assigned Plot Numbers (From)	Assigned Plot Numbers (To)	Estimated Stratum Area (ha)	Final Stratum Net Area (ha)	Stratum Code	Estimated Stratum Area (ha)	Final Stratum Net Area (ha)
Deleted	TFL001	3D	1	TFL3D1	20	SR2X	27	51	235.3	229.64	CREX	0.1	0.1
Updated	TFL002	2D	2	TFL2D2	10	SR2X	1	14	138.19	135.26	CREX	0.04	0.04
	TFL002	2D	2	TFL2D2	10	SR2X	1	14	138.19	135.26			

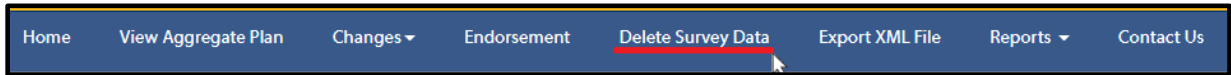
To edit data for an existing waste assessment area, go to the View Aggregate Sample Plan Screen and select the WAA's row of information from the list of WAAs. Users will be taken to the Aggregate Sample Plan - Waste Assessment Area Information screen where they can select the desired field to edit. If the field is locked down, it will be greyed out and not selectable.

On the Waste Assessment Area Information screen, Users also have the option of creating new 100% Scale or Estimate Percent stratum on the 'Stratum Data' tab by selecting the 'New Stratum' button and entering in the applicable stratum information.

4.6.3. 'Post Survey Data Upload' Edits to a Sample Plan

After survey data is uploaded to the sample plan, all sample plan fields will be locked down and un-editable. To edit the sample plan, Users must first delete the survey data by

selecting the 'Delete Survey Data' button at the top of the screen in HRC. After the survey data is deleted, all 'post endorsement' editing functionality will be restored.



Survey Data cannot be edited in HRC. After upload, all survey data is viewable in HRC, but is not editable. If edits to survey data are necessary, the EFW file must be edited in EForWasteBC and re-uploaded into the sample plan.

4.6.4. Deleting Stratums

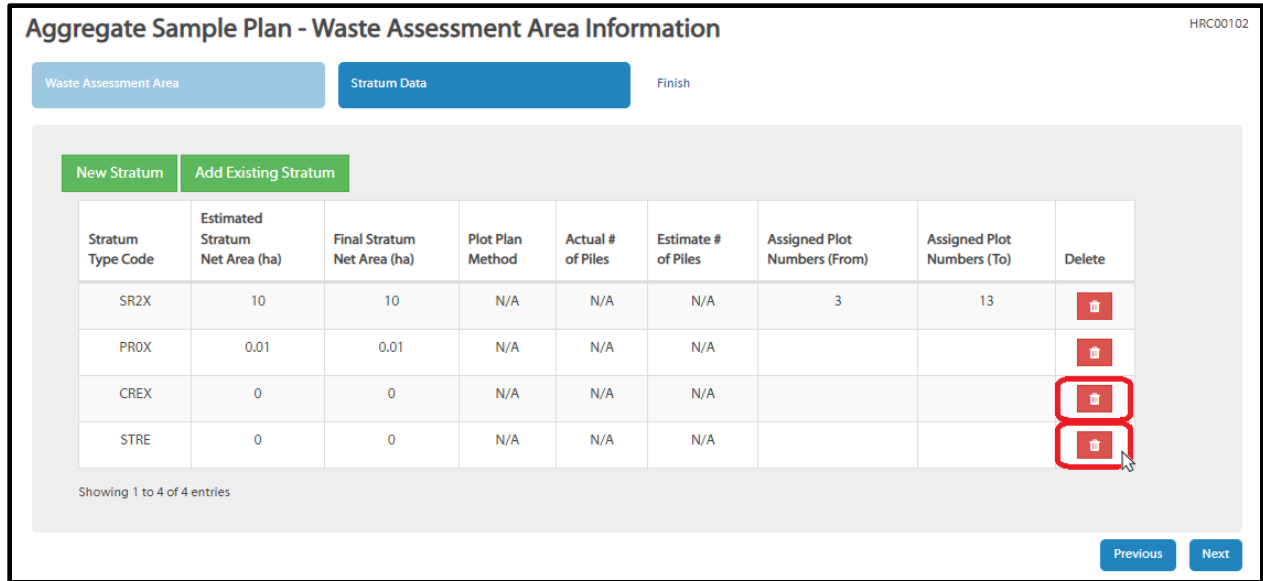
This section has been included to provide guidance for Users when encountered with one or more waste assessment area(s) containing stratums with a Final Stratum Net Area of 0.00 ha or if an expected stratum does not occur in a WAA.

The minimum stratum area is 0.01 ha. If a stratum is determined to be less than 0.01 ha or if an expected stratum does not occur in a WAA (verified during the field survey), the stratum must be deleted from the WAA, in HRC. A stratum that does not exist in the field is not the same as waste materials disposed of prior to the waste assessment, refer to the waste manual for details.

If a waste assessment area contains any stratum(s) with a Final Stratum Net Area of 0.00 ha the stratum(s) should be removed and not be included in the compilation, as the Waste system will not accept the submission.

Stratum Code	Estimated Stratum Area (ha)	Final Stratum Net Area (ha)	Stratum Code	Estimated Stratum Area (ha)	Final Stratum Net Area (ha)
STRE	0.02	0.02	CREX	0.01	0.01
STRE	0	0	CREX	0.01	0.02
STRE	0	0	CREX	0	0

1. Navigate to the View Aggregate Sample Plan screen and select the WAA's row of information from the list of WAA's. In the 'Aggregate Sample Plan - Waste Assessment Area Information' screen, navigate to the 'Stratum Data' tab, find the stratum, and select the red delete button (on the right). This will remove the specified stratum linked to the specified block.



2. If survey data has been uploaded to the sample plan, make sure to delete the survey data prior, as mentioned in section 4.6.3 above.
3. Once deleted, you can navigate back to the view aggregate plan where you can see the removed stratum from the specified WAA, as shown below.

Stratum Code	Estimated Stratum Area (ha)	Final Stratum Net Area (ha)	Stratum Code	Estimated Stratum Area (ha)	Final Stratum Net Area (ha)
STRE	0.02	0.02	CREX	0.01	0.01
			CREX	0.01	0.02

4.7. Endorsing a Sample Plan

Endorsement of a sample plan by a forest professional is a critical step in professional accountability as the ‘signed off’ sample plan report will be submitted to the Ministry prior to starting the field survey. Therefore, the sample plan must be endorsed before the sample plan report can be generated. The endorser must be an RPF or RFT in good standing with Forest Professionals British Columbia (FPBC— formerly ABCFP).

The steps to Endorse a sample plan are as follows:

1. Open the sample plan in HRC and ensure all WAA and associated stratum information is complete and correct.
2. Select the 'Endorsement' button from the top of the screen.

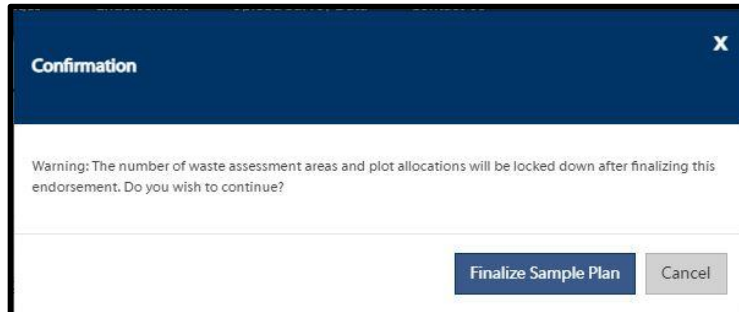


3. Users will be taken to the 'Sample Plan Endorsement' screen.
4. The signing professional must fill out all the required information on the Sample Plan Endorsement screen including selecting the appropriate certification statement.

The screenshot shows a web form titled 'Sample Plan Endorsement' in the top left and 'HRC0109' in the top right. The form contains several fields: 'Sample Plan Endorsed:' with the value 'NO'; 'Sample Plan Name:' with the value 'Aggregate Ratio Sample Plan Test 1'; 'Population Type:' with the value 'Aggregate'; 'Survey Type:' with the value 'RATIO'; 'Total # of Waste Assessment Areas:' with the value '7'; 'Total Estimated Net Harvest Area (ha):' with the value '57.07'; 'First Name:' with the value 'Alex'; 'Last Name:' with the value 'Surveyor'; 'Role:' with a dropdown menu showing 'Registered Forest Technoloaist'; 'License Number:' with the value '1234'; 'Phone Number:' with the value '250-847-5300'; and 'Email:' with the value 'User@domainName.com'. Below these fields are three radio button options for certification statements. At the bottom left is a red button labeled 'Return to Plan' and at the bottom right is a green button labeled 'Finalize Sample Plan'.

5. After all the required information is filled out, select the 'Finalize Sample Plan' button in the lower right corner of the screen.

6. A confirmation pop-up window will appear informing the User that plot allocations and waste assessment areas will be locked down after endorsement is finalized. Select 'Finalize Sample Plan' button to finish the endorsement.



7. After the Endorsement is complete, save a copy of the updated HRC file to your PC and re-name the file accordingly.

4.8. Plot Allocations in the Aggregate Sample Plan

After the sample plan is endorsed, HRC will allocate the total number of plots depicted in the stratum summary, throughout each respective **'sample'** waste assessment area, within the sample plan. **'Non-sample'** WAA's will not have plots allocated to them. Plot-based stratum will have plots allocated to them; 100% Scale and Estimate Percent stratum will not have plots allocated to them as the whole population must be sampled.

An example of the stratum summary for an Aggregate Ratio population:

The screenshot shows the 'Aggregate Sample Plan' interface. It includes several input fields for survey parameters and a table of stratum data.

Stratum Type Code	Minimum # of Prediction Plots for Stratum	Additional Plots For Stratum	Total Plots For Stratum	Me. For
SC2X	85	0	85	2
STRE	N/A			
PCOX	58	0	58	1
RCOX	30	0	30	1

Plot allocation is important for developing field survey maps as well as for field sampling procedures outlined in the Waste Manual.

The plot allocations and numbers from the sample plan must be assigned exactly as listed for each waste assessment area survey map, label in the field and entry into EForWasteBC.

An example of the plot allocation section in a Sample Plan Report:

Sample Block	Stratum Code	Assigned Plot Numbers (From)	Assigned Plot Numbers (To)	Estimated Stratum Area (ha)	Final Stratum Net Area (ha)	Stratum Code	Estimated Stratum Area (ha)	Final Stratum Net Area (ha)	Stratum Code	Plot Plan Method	Assigned Plot Numbers (From)	Assigned Plot Numbers (To)
Yes	SR2X	1	34	135.19	135.26	CCEX	0.01	0.04	PROX	Estimate	1	19
Yes	SR2X	35	47	51.39	50.04				PROX	Estimate	20	25
Yes	SR2X	48	48	1.52	1.25				PROX	Estimate	26	26
Yes	SR2X	49	50	11.33	11.1	CCEX	0.01	0.01	PROX	Estimate	27	27
Yes	SR2X	51	62	46.19	46.01	CCEX	0.01	0.03	PROX	Estimate	28	33
Yes	SR2X			1.23	1.4				PROX	Estimate		
No												
No												
No												

The plot numbers assigned for each waste assessment area/stratum combination in the Sample Plan Report ***must be used*** to identify the plots on the field survey maps, in the EForWasteBC survey file and in the field – see the Waste Manual for more information on plot numbering procedures.

Note: If a stratum exists within a waste assessment area, but the ‘Assigned plot Numbers (To)’ and ‘(From)’ fields are blank, then there are no plots allocated to that stratum within that waste assessment area.

Sample Block	Stratum Code	Assigned Plot Numbers (From)	Assigned Plot Numbers (To)	Estimated Stratum Area (ha)	Final Stratum Net Area (ha)	Stratum Code	Plot Plan Method	Assigned Plot Numbers (From)	Assigned Plot Numbers (To)
Yes	SR2X	1	34	135.19		PROX	Estimate	1	19
Yes	SR2X	35	47	51.39		PROX	Estimate	20	25
Yes	SR2X	48	48	1.52		PROX	Estimate	26	26
Yes	SR2X	49	50	11.33		PROX	Estimate	27	27
Yes	SR2X	51	62	46.19		PROX	Estimate	28	33
Yes	SR2X			1.23		PROX	Estimate		
No									

4.8.1. Dispersed and ‘Other Accumulation’ Stratums and Plot Allocation

Setting up the sample plan correctly for dispersed stratums or ‘other accumulation’ stratum types is important for consistency and maintaining sampling integrity. Key points are listed

below to ensure the stratum are properly inputted into the HRC sample plan and interpreted during field sampling. For further information refer to the Waste Manual.

- The plot allocations and numbers from the sample plan must be assigned exactly as listed for each waste assessment area survey map, label in the field and entry into EForWasteBC.
- Refer to the Waste Manual for details on mapping procedures.

4.8.2. Pile Stratum and Plot Allocation – Sample Plan Implementation

Setting up the sample plan correctly for pile stratum is important for consistency and maintaining sampling integrity. Key points are listed below to ensure the stratum are properly input into the HRC sample plan and interpreted during field sampling. For further information refer to the Waste Manual.

- The plot allocations and numbers from the sample plan must be assigned exactly as listed for each waste assessment area survey map, labeled in the field and entry into EForWasteBC.
 - **Note:** the plot number from the sample plan may not correspond with the pile number assigned in the field. (The number of piles is generally different than the number of pile stratum plots).
- If creating two pile stratum, (one for dispersed piles and one for roadside piles), ensure that each is given a unique stratum code in the sample plan so that they get the correct plot allocations in the sample plan.
- Pile stratum identified in the sample plan must be continuous throughout the population.
 - **For Example:** if the dispersed piles are included as part of a pile stratum in one waste assessment area, then the dispersed piles must be included in the pile stratum for all the waste assessment areas in the population when they are present.
- The selected plot plan method of 'Actual' or 'Estimate' must be used for the roadside/dispersed pile stratum(s) throughout the entire aggregate population.
- When the 'Estimate' plot plan method is used to determine the number of plots in the sample plan, the 'Estimated Stratum Area (ha)' to be used is 0.01ha (as seen below) for each waste assessment area/stratum combination.

Stratum Code	Plot Plan Method	Estimated Stratum Area (ha)	Final Stratum Net Area (ha)
PROX	Estimate	0.01	
PROX	Estimate	0.01	
PROX	Estimate	0.01	
PROX	Estimate	0.01	

- When the ‘Estimate’ plot plan method is chosen, it is only used to estimate the number of piles in the waste assessment area so HRC can calculate the plot allocations in the sample plan. For determining the sample pile plot interval and plot locations in the field, surveyors must determine and use the actual number of piles in the waste assessment area and the date of the month the surveyor first arrives on the block (*refer to Section 8.5 of the Waste Manual for further information*).
- If the ‘Estimate’ plot plan method is chosen, it may be possible that field surveying reveals that a WAA might not contain all estimated number of piles.

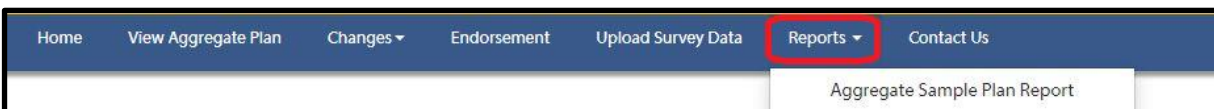
Important Reminder: If a WAA was determined not to contain a pile stratum (e.g.: stump side processing), remove the stratum from the WAA. Refer to section 4.3.1 in the waste manual if waste material was disposed of prior to the waste assessment.

4.9. Generating a Sample Plan Report

A sample plan report can only be generated after the sample plan is endorsed. The sample plan report must be submitted to the Ministry prior to starting the field survey (refer to the Waste Manual for more details on submission requirements).

To generate a sample plan report, follow these steps:

1. Endorse the sample plan (User Guide section 4.7).
2. Select the ‘Reports’ button at the top of the HRC screen and select ‘Aggregate Sample Plan Report’ from the drop-down list of options.



3. Users will be taken to the Aggregate Sample Plan Report screen. Select ‘Download

Report' button. Users must select a location to save the report on their PC and name it accordingly so that it is easily identifiable for future use.



4. Submit a copy of the Aggregate Sample Plan Report to the District as per section 4.2 of the waste manual.

Note: Any edits made to the sample plan after endorsement will also be updated in the sample plan report (if it is generated after the data is edited).

4.10. Uploading Survey Data to an Aggregate Sample Plan

The following attributes must match exactly between the EForWasteBC file and the HRC sample plan:

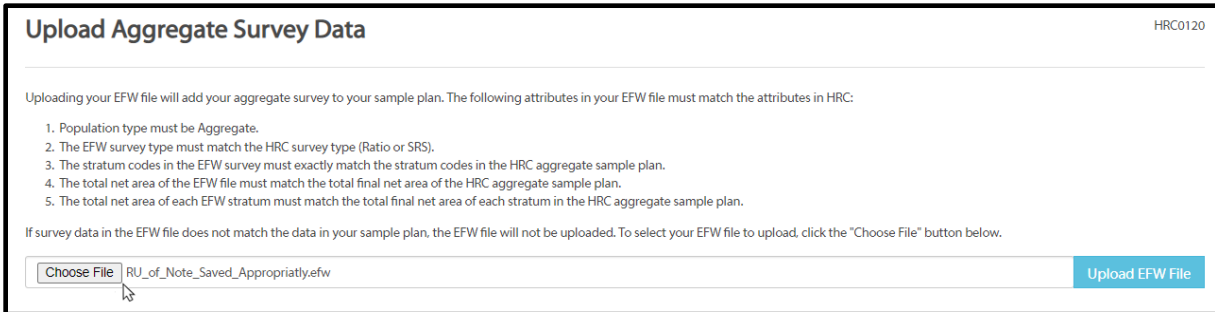
- Population type must be aggregate.
- The survey type must match (Ratio or SRS).
- The stratum codes in the EFW file must match the stratum codes in the sample plan.
- The total net area of each EFW stratum must match the total final net area of each stratum in the sample plan.

Follow these steps to upload survey data to an existing sample plan, in HRC:

1. Open the finalized aggregate sample plan and ensure that the final stratum net areas for 'sample blocks' have been updated correctly and match the incoming EFW file.
2. Make sure the sample plan has been endorsed.
3. Select the 'Upload Survey Data' button at the top of the screen in HRC.



4. Users will navigate to the Upload Aggregate Survey Data screen. Select 'Choose File' to browse for the EFW file for upload. Navigate your PC and select the appropriate EFW file.



5. Select the blue 'Upload EFW File' button.
 - a. If there are errors with the data, a message will be displayed.
 - i. If the EFW file is incorrect, then the file must be corrected and re-uploaded.
 - ii. If the sample plan is incorrect, then the sample plan must be corrected prior to uploading the survey data.
 - b. If there are no errors, Users will be notified that the upload was successful.

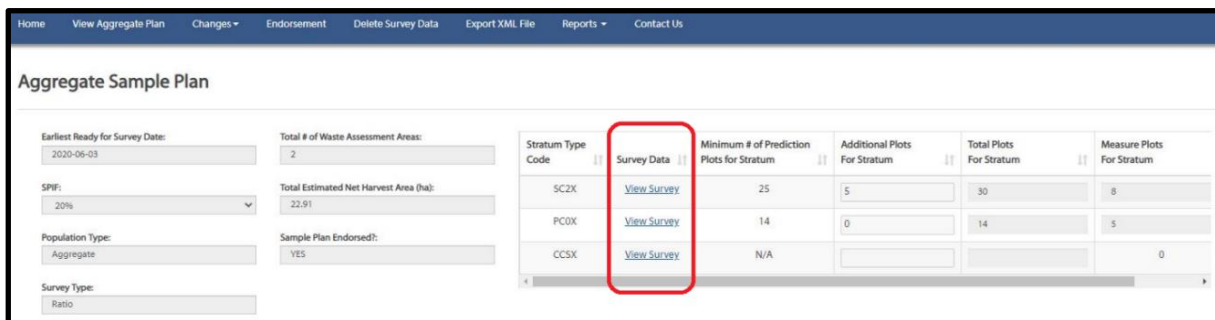
6. Save the updated HRC file to your PC.

Note: only one set of survey data can be uploaded to an aggregate sample plan, therefore if multiple EFW files were used to collect the survey data then they must be merged prior to uploading to HRC.

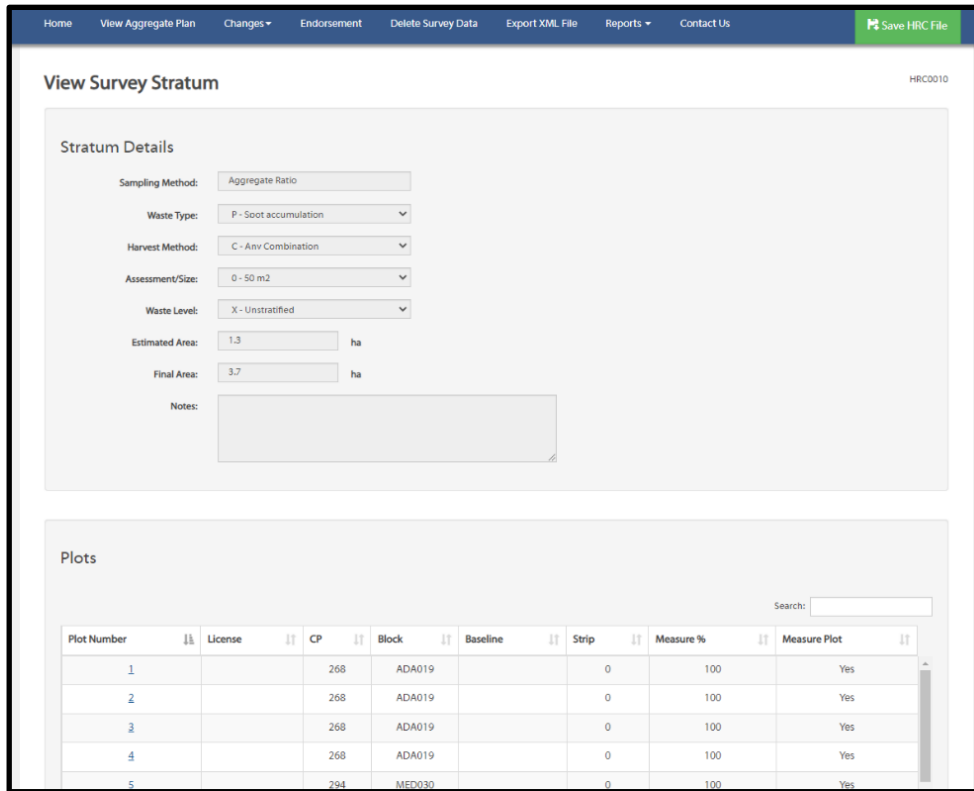
4.11. Viewing Survey Data in the Aggregate Sample Plan

After survey data is uploaded to the aggregate sample plan it can be viewed for each stratum. To view survey data in HRC follow these steps:

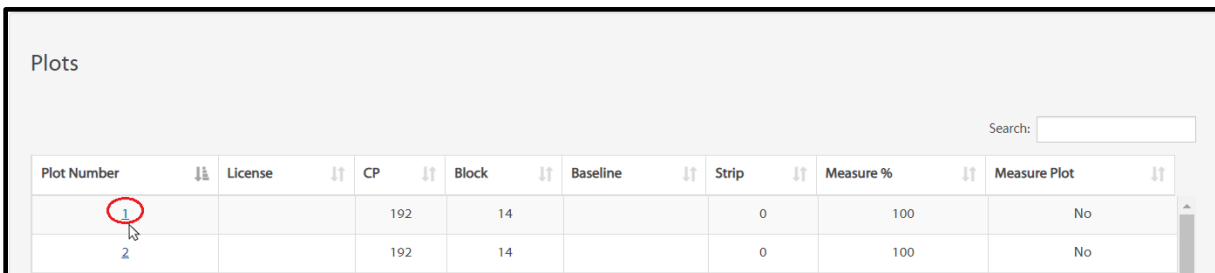
1. Upload survey data to the sample plan.
2. Navigate to the View Aggregate Sample Plan screen and select the 'View Survey' link for the stratum of interest located under the Survey Data column.



- Users will be taken to the View Survey Stratum screen which outlines the stratum specifics as well as lists the plots within the stratum.



- To view more detailed information about a specific plot in the stratum select the plot number link.



- Users will be taken to the View Survey Plot screen which identifies more information about the plot specifics and provides a list of pieces that were tallied in the plot.

View Survey Plot
HRC0012

Plot Details

Plot Number:

Assessment/Size:

Measure %:

Shape:

Residue Surveyor:

[Back to Stratum](#)

Pieces

Search:

Piece Number	Borderline	Species	Kind	Class	Length (dm)	Top (R)	Top End	Butt (R)	Butt End	Grade
1	B	CE	L	A	48	12	N	14	C	2
2	I	CE	W	A	17	29	C	30	C	4

- To view more detailed information about a specific piece in the plot, click the piece number link.

Pieces

Search:

Piece Number	Borderline	Species	Kind	Class	Length (dm)	Top (R)	Top End	Butt (R)	Butt End	Grade
1	B	CE	L	A	48	12	N	14	C	2
2	I	CE	W	A	17	29	C	30	C	4

- Users will be taken to the View Survey Piece screen where all details about the selected piece will be viewable.

Note: Survey data cannot be edited in HRC. To edit survey data, Users must make all edits in the EForWasteBC program then re-upload the survey data into the sample plan in HRC.

4.12. Generating XML Files from the Aggregate Sample Plan

This section has been included to provide guidance to Users, on how to generate XML files for 'sample blocks' and 'non-sample blocks' in HRC for submission into the Waste System.

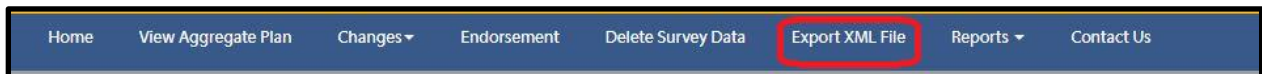
Users must reference to section 4.12.1 in the User guide bellow, for aggregate populations that were created with previous versions of HRC (1.5.3 or older).

Note: Prior to generating XML files it is important to ensure that there are no WAA's containing stratoms with a Final Stratum Net Area of 0.00 ha.

Generating XML files for 'sample blocks' and 'non-sample blocks' will consist of the same steps.

Users must submit a .xml file for each 'sample block' and 'non-sample block' in the Aggregate Sample Plan:

1. Upload survey data to the aggregate sample plan (follow steps outline in section 4.10 above).
2. Select the 'Export XML File' button at the top of the HRC screen.

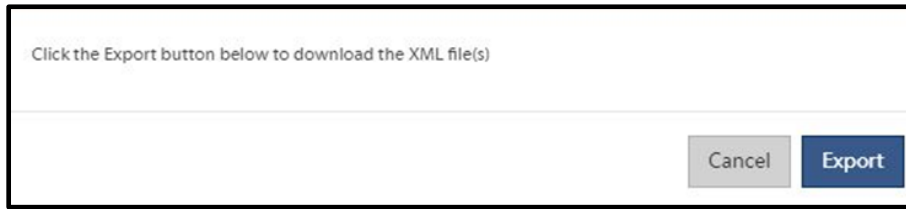


3. Users will be taken to the Export XML File screen. Fill out all the required fields. The information provided will be inputted into the XML file that is created.

A screenshot of the 'Export XML File' screen. The title 'Export XML File' is at the top left, and 'HRC0111' is at the top right. The form contains four input fields: 'Licensee Contact' with the value 'Jason Smith', 'Phone Number' with '123-123-1234', 'Email' with 'j@g.com', and 'Waste Assessment Area to Export' with a dropdown menu showing 'All WAAs'. There are red asterisks to the right of each input field. At the bottom left is a red 'Return to Plan' button, and at the bottom right is a green 'Validate' button.

4. Select the desired WAA for XML file creation from the drop-down list or, select all WAA's.
5. Press the 'Validate' button to validate the information and initiate the XML generation process.

6. HRC will notify the User if there are any errors. Errors must be corrected prior to XML generation. If there are no errors, a pop-up window will appear to finalize the exporting of the XML file. Click the 'Export' button to finalize the XML file creation.



7. The XML file(s) will generate for the selected waste assessment area(s). Save the file(s) to your PC and re-name it accordingly.
8. Upload each XML file to [Electronic Submission Framework \(ESF\)](#), for submission into the Waste System.

Note: XML's generated for 'non-sample blocks' must be submitted under the same Reporting Unit # as the 'sample blocks', for each respective client.

9. Please refer to section 4.12.1, in the User guide bellow, for aggregate populations that were created with previous versions of HRC (1.5.3 or older).

4.12.1 Compiling 'Non-Sample Blocks' using the 'Non-Sample' Compiling Spreadsheet

This section has been included for aggregate populations with sample plans created with a version **prior to HRC 1.6.0** containing 'non-sample blocks'. This section only pertains to compiling 'non-sample blocks'. 'Sample blocks' will use the methods described in section 4.12 above.

Users must employ the "Aggregate 'Non-Sample Block' Compiling Spreadsheet" that is available on the [Ministry Website](#) for compilation and submission into the Waste System via ESF, using the instructions below:

1. Download a copy of the "Aggregate Non-Sample Block Compiling Spreadsheet" to your PC.
2. Fill out the Final Aggregate Sample Plan Areas portion of the spreadsheet that are User entered. Each field is represented as follows:
 - a. Stratum Code: fill in each of the stratum and their associated codes for the 'sample blocks' in the aggregate sample plan.

- b. Final Total Net Stratum Areas for ‘Sample Blocks’ (ha): for each stratum listed, enter the total final area (ha) from the aggregate sample plan.

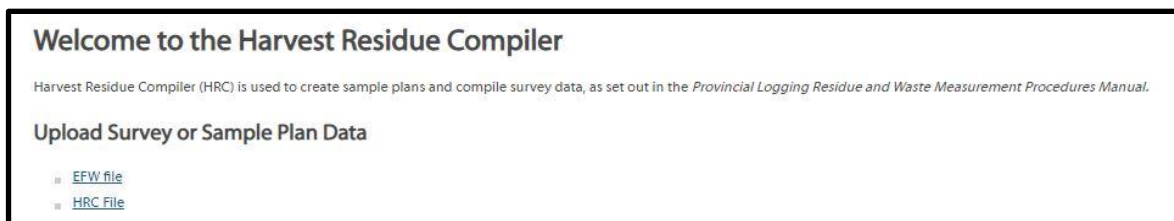
Final Aggregate Sample Plan Areas		
Stratum Code	Final Total Net Stratum Areas	Stratum % of Sample Block
SC2X	355.55	93.87%
PC0X	22.20	5.86%
CCSX	1.02	0.27%
		0.00%
		0.00%
		0.00%
		0.00%
		0.00%
		0.00%
		0.00%
Totals	378.77	100%

- Each Client in the aggregate population will need to identify the waste assessment area that would be deemed as the ‘Largest Non-Sample Block’ based on the combined net waste area of the block and any associated road permit areas as per section 7.1.1 of the Waste Manual.
- Fill out the ‘Largest Non-Sample Block Information’ portion of the spreadsheet that are User entered using the waste assessment area identified in step 3. Each User entered field of the spreadsheet is represented as follows:
 - Licence, Cutting Permit, Cutblock ID and Timber Mark – the appropriate information for the waste assessment area identified in step 3.
 - Total Waste Net Area (ha) – the total net waste area for the of the block and any associated road permit areas.
- After the above information is inputted, the spreadsheet will generate the associated stratum areas identified in the sample plan for the ‘Largest Non-Sample Block’.

Largest ‘Non-Sample’ Block Information (for each Client in the Aggregate Population)												
Client	Licence	Cutting Permit	Cutblock ID	Timber Mark	Total Net Waste Area (ha)	Stratum	Stratum	Stratum	Stratum	Stratum	Stratum	
						Area (ha)	Area (ha)	Area (ha)	Area (ha)	Area (ha)	Area (ha)	
Joe's Logging	A12345	11	C3PO	R2D2	45.78	42.98	2.68	0.12	0.00	0.00	0.00	0.00
Janet's Harvest Co.	TFL99	29	867	5309	45.56	42.77	2.67	0.12	0.00	0.00	0.00	0.00

- Make a copy of the final EFW file for the aggregate sample population that can be edited in EForWasteBC.

7. Open the copy of the EFW in EForWasteBC.
8. In EForWasteBC, update the following fields so that they match the Largest 'Non-Sample' Block information to submit to the Waste System:
 - a. Timber Mark
 - b. Reporting Unit Number
 - c. Site Code
9. Save and Export the EFW file from EForWasteBC to your PC (see EForWasteBC User Manual for further instructions on exporting EFW files).
10. Open HRC and upload the EFW file by selecting the 'EFW file' link under the Upload Survey or Sample Plan Data header on the home screen.



11. Users will be taken to the Upload Existing EFW file screen. Choose the desired EFW file to upload by selecting the 'Choose File' button.
12. After the EFW file is chosen, select the 'Upload' button and the file will upload.



13. An aggregate EFW file does not initially contain a Cut Block ID, Cutting Permit, Licence, Logged From Year, Logged To Year, Logging Completion Date this information must be filled in HRC after the survey data is uploaded. The information must match the information for the "Largest Non-Sample Block".
14. Save the edits in an HRC file to be included in the submission with this block into the Waste System.

15. Select 'Export Compiled Data' button at the top of the HRC screen to generate an XML file.



16. Users will be taken to the ESF XML Download screen. Fill out all the Client submission Information fields that will be inputted into the XML file.

A screenshot of the 'ESF XML Download' screen. The title 'ESF XML Download' is at the top left, and 'HRC0039' is at the top right. Below the title is a section titled 'Client Submission Information' with a light gray background. This section contains five input fields: 'District Code' (a dropdown menu with 'Select' as the current value), 'Client Code' (a text box), 'Licensee Contact' (a text box), 'Email Address' (a text box), and 'Telephone Number' (a text box). At the bottom left of the form area is a green 'Download' button.

17. After all fields are entered, press the 'Download' button.
18. The XML file will be generated. Save it to your PC and label the file accordingly.
19. Upload the XML to [Electronic Submission Framework \(ESF\)](#) for submission into the Waste System for the 'Largest Non-Sample Block' under the same Reporting Unit # as the 'sample blocks'.
20. Once the upload to the Waste System is successful, update the stratum areas and total net harvest areas so that they match the WAA/stratum areas in the Largest 'Non-Sample' Block Compiling Spreadsheet.

Note: *If there is a stratum in the Largest 'Non-Sample' Block Compiling Spreadsheet that has a 'Stratum Area (ha)' of 0.00ha, ensure to delete that stratum from the Waste System for the 'Non-Sample' block submission.*

The screenshot shows the 'Waste System' application interface. At the top, there are navigation tabs: Search, Reporting Unit, Reports, Ledgers, Admin, and Links. Below these are several input fields for waste management data:

- Net Area (ha):** 45.78 (highlighted with a red box and an arrow pointing to the 'Gross Disturbance Area (ha) (from FTA):' label).
- Remaining Harvest Area (ha):** (empty field)
- FTA Block Status:** HB - Approved for Harvesting Roads (NP/NF): (empty field)
- Cruise (m³/ha):** 0
- Waste Surveyor Licence:** 155F
- Harvest Status:** Complete (selected), Incomplete, N/A
- Return Number:** 185
- Zone:** Dry Belt, Transition Zone, Wet Belt (Wet Belt selected)
- Condition:** Normal (selected), MPB Control, Fire Kill
- WASTE Benchmark (m³/ha):** 20
- Multi-Mark:** No
- Primary Mark Area (ha):** (empty field)

Below the input fields are two tables:

Dispersed

Waste Type	Harvest Method	Assessment Method	Plot Size (m ²)	Waste Level	Area (ha)	Actions
S - Clearcut	C - Any Combination	C - Completed		X - Not Stratified	42.98	Save, Cancel, Edit, Delete

Accumulation

Waste Type	Harvest Method	Assessment Method	Plot Size (m ²)	Waste Level	Area (ha)	Actions
C - Cold Deck	C - Any Combination	C - Completed		X - Not Stratified	.12	Save, Cancel, Edit, Delete
P - Spot Accumulation	C - Any Combination	C - Completed		X - Not Stratified	2.68	Save, Cancel, Edit, Delete

At the bottom, there is a **Standing Trees** section with an **Assessment Method** dropdown and a **Net Area** input field.

21. Attach the completed “Aggregate ‘Non-Sample Block’ Compiling Spreadsheet” and adjusted EFW file to the waste submission in the Waste System.

22. This block will be the ‘Parent’ block for all the other ‘Non-Sample Blocks’ in the population. The remaining ‘Non-Sample Blocks’ for the licensee will be ‘Child’ blocks linked to this ‘Parent’ block.

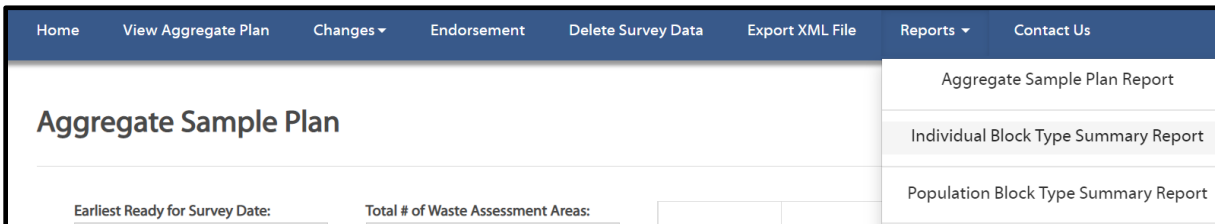
Note: If there is a sharing agreement and the aggregate population contains WAAs from multiple licensees, each licensee must complete this process for determination of their ‘Non-Sample Block’ volumes and Parenting. If a licensee does not have any ‘Non-Sample Blocks’ in the population then they do not have to complete this process.

4.13. Creating Block Type Summary Reports from an Aggregate Sample Plan

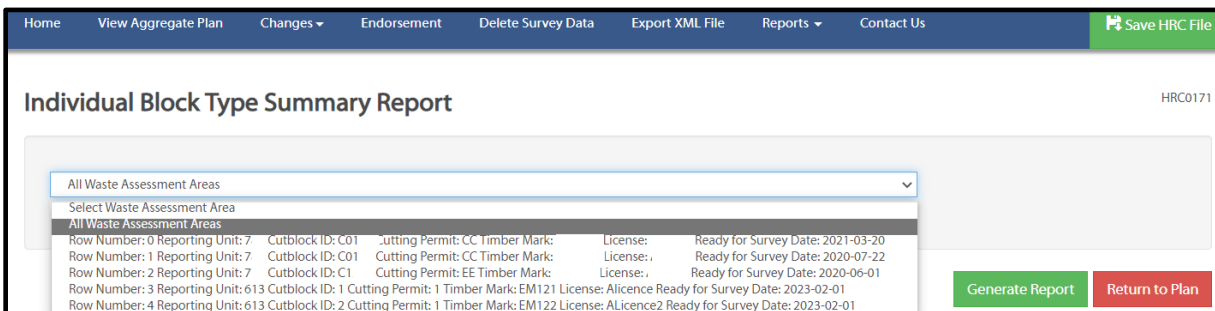
Block type summary reports can be generated after survey data is uploaded, for an individual waste assessment area within the sample plan, for all blocks within the population or for the entire population.

4.13.1 Individual Block Type Summary Reports

1. Upload survey data to the aggregate sample plan or upload an existing .hrc file that already has survey data uploaded.
2. Select the 'Reports' button at the top of the HRC screen and press the 'Individual Block Type Summary Report' option from the drop-down list.



3. Users will navigate to the Individual Block Type Summary Report screen. Select the desired waste assessment area from the drop-down list or, select all WAA's, then press the 'Generate Report' button.



4. After a few moments, the report will be created, and the User will be able to save it to their PC and view it. The Aggregate Block Type Summary Report is in an excel format, therefore the appropriate computer software is needed to open and view the report.

4.13.2 Population Block Type Summary Reports

A population block type summary report can be generated in HRC and will report the sum of total areas and volumes for each stratum, for the entire population in the sample plan. The population BTS report will also sum up the grand total of all areas and volumes for the entire population in the sample plan. If 'non-sample blocks' are included in the sample plan the volumes are included in the population BTS.

1. Upload survey data to the aggregate sample plan or upload an existing .hrc file that already has survey data uploaded.
2. Select the 'Reports' button at the top of the HRC screen and press the 'Population Block Type Summary Report' option from the drop-down list.



3. Users will navigate to the Population Block Type Summary Report screen. Select the 'Generate Report' button.



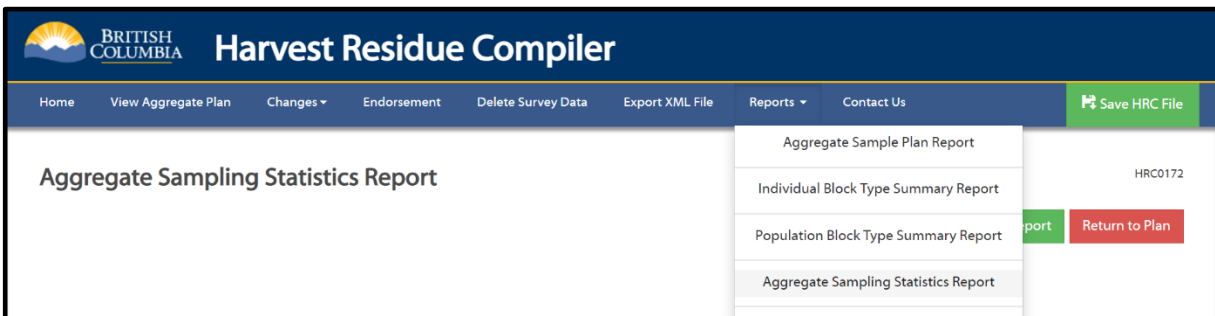
4. After a few moments, the report will be created, and the User will be able to save it to their PC and view it. The Aggregate Block Type Summary Report is in an excel format, therefore the appropriate computer software is needed to open and view the report.

Note: Users may encounter minor volume discrepancies between the volumes reported in the BTS report and the volumes reported in the sampling statistics report. These discrepancies are due to rounding.

4.14. Creating Aggregate Sampling Statistics Report

The aggregate sampling statistics report can be generated after survey data is uploaded. The sampling statistics report will include volumes from the ‘non-sample’ WAA’s, if ‘non-sample blocks’ are included in the sample plan.

1. Upload survey data to the aggregate sample plan or upload an existing .hrc file that already has survey data uploaded.
2. Select the ‘Reports’ button at the top of the HRC screen and press the ‘Aggregate Sampling Statistics Report’ option from the drop-down list.



3. Users will navigate to the Aggregate Sampling Statistics Report screen. Press the ‘Generate Report’ button.
4. After a few moments, the report will be created, and the User will be able to save it to their workstation and view it.

HRC - Sampling Statistics Report
Figures Represent Only Cut Control Volumes

Sampling Method: **Aggregate Ratio Sampling** 2022/11/18

License	Cutting Permit	Cut Block	Timber Mark	Sub Population	Type Stratum	Area (Ha)	Total Measure Plots	Total Prediction Plots	m3 per Hectare			C. V.%	S. E.% (@.95)	Volume m3	
									Avoidable	Cut Control	Std Dev			Avoidable	Cut Control
8		1		ACC	PROX	0.29			251.8	251.8	47.3	18.8	15.7	73.0	73.0
8		2		DISP	SR2X	18.94			42.5	42.5	14.9	35.0	19.4	805.3	805.3
8		3		ACC	PROX	0.95			251.8	251.8	47.3	18.8	15.7	239.2	239.2
8		4		DISP	SR2X	67.76			42.5	42.5	14.9	35.0	19.4	2881.2	2881.2
8		5		ACC	PROX	0.15			251.8	251.8	47.3	18.8	15.7	37.8	37.8
8		6		DISP	SR2X	10.71			42.5	42.5	14.9	35.0	19.4	455.4	455.4
8		7		ACC	PROX	0.69			251.8	251.8	47.3	18.8	15.7	173.7	173.7
8		8		DISP	SR2X	48.77			42.5	42.5	14.9	35.0	19.4	2073.7	2073.7
All	All	All	All	ACC	PROX	2.08	8	30	251.8	251.8	47.3	18.8	15.7	523.7	523.7
All	All	All	All	DISP	SR2X	146.18	15	53	42.5	42.5	14.9	35.0	19.4	6215.6	6215.6
Total						148.26	23	83	45.5	45.5	18.2	40.0	17.3	6739.3	6739.3

Note: Statistical outputs depicted in the report is based on the aggregate population as a whole, rather than individual blocks.

Users may encounter minor volume discrepancies between the volumes reported in the BTS report and the volumes reported in the sampling statistics report. These discrepancies are due

to rounding.

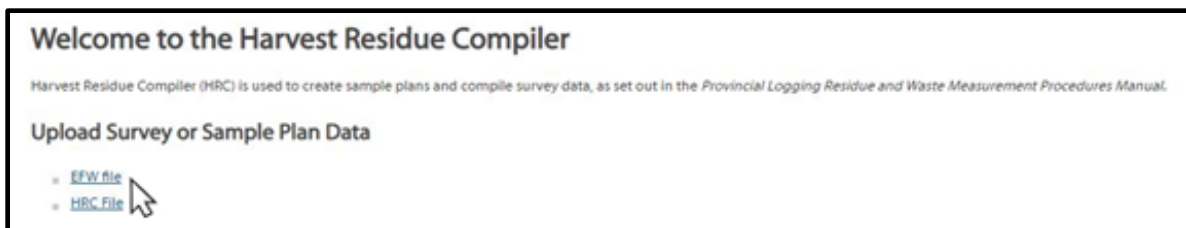
5. Single Block Populations

Single block populations do not require a sample plan to be created in HRC to determine the plot allocations for each stratum. Users will follow the procedures outlined in the Waste Manual to create the survey map for submission to the Ministry prior to starting the field survey.

5.6. Uploading Survey Data for a Single Block Population

As no sample plan is created in HRC for single block populations, Users can upload their EFW files directly into HRC following these steps:

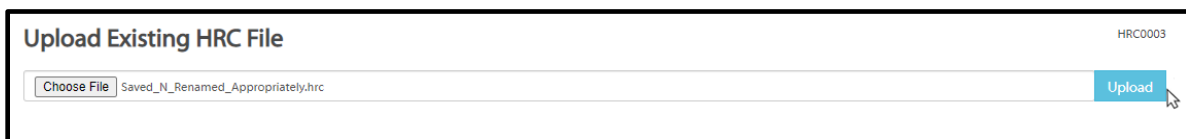
1. Open HRC and upload the EFW file by selecting the 'EFW file' link under the Upload Survey or Sample Plan Data header on the HRC Home screen.



2. Users will be taken to the Upload Existing EFW file screen. Choose the desired EFW file to upload by selecting the 'Choose File' button.



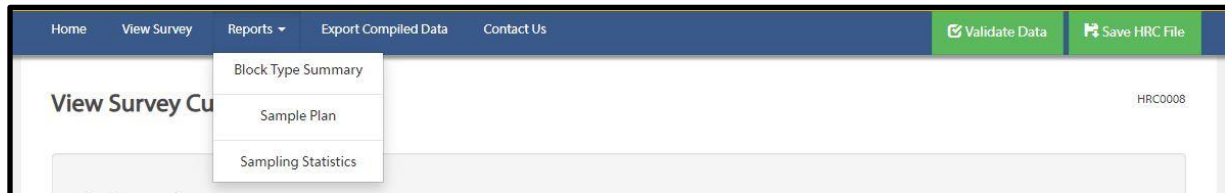
3. After the file is chosen, select the 'Upload' button and the file will upload.



4. If there are no errors in the EFW file, it will upload and be viewable in HRC.
5. Save the HRC file for submission with this block into the Waste System (Refer to section 2.1 above on how to save HRC data).

5.7. Generating a Block Type Summary Report for a Single Block Population

1. Upload the EFW or HRC single block survey data used for compiling the single block population.
2. Press the 'Reports' button at the top of the HRC screen and select the 'Aggregate Block Type Summary' option from the drop-down list.



3. Users will be navigated to the Block Type Summary Report screen. Select the cut block from the 'Survey Cut Block' drop down list and press the 'Download Report' button.



4. After a few moments, the report will be created, and the User will be able to save it to their workstation and view it. The Block Type Summary Report is in an excel format, therefore the appropriate computer software is needed to open and view the report.

5.8. Generating a Sampling Statistics Report for a Single Block Population

1. Upload the EFW or HRC single block survey data used for compiling the single block population.
2. Press the 'Reports' button at the top of the HRC screen and select the 'Sampling Statistics' option from the drop-down list.



3. Users will then navigate to the Sampling Statistics Report screen. Select the 'Download Report' button.



4. After a few moments, the report will be created, and the User will be able to save it to their workstation and view it. The Sampling Statistics Report is in a pdf format; therefore, the appropriate computer software is needed to open and view the report.

5.9. Generating an XML File for a Single Block Population

1. Upload the EFW or HRC single block survey data used for compiling the single block population (reference section 2.1 above for details).
2. Select 'Export Compiled Data' button at the top of the HRC screen to generate an XML file.



3. Users will be taken to the ESF XML Download screen. Fill out all the Client submission Information fields that will be inputted into the XML file.

ESF XML Download HRC0039

Client Submission Information

District Code:

Client Code:

Licensee Contact:

Email Address:

Telephone Number:

4. After all fields are entered, press the 'Download' button. The XML file will be generated. Save it to your workstation and label the file accordingly.

5. Upload the XML into the Waste System using the Electronic Submission Framework (ESF) website.

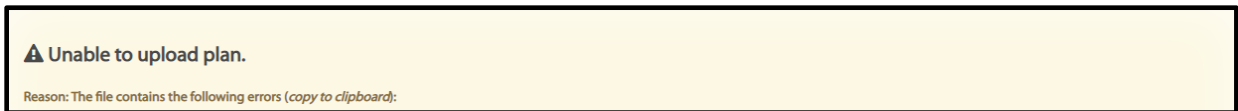
6. Troubleshooting

Users are encouraged to reference the following section for problem solving techniques, additional tips and common errors when encountered with any issues, using HRC. If you are unable to problem solve issues using the instructions depicted in the user guide, or if you have feedback to the continuous improvement of this guide or HRC itself, please contact the District or Area Waste Specialist at the Ministry of Forests. If you are unsure who the Waste Specialist is in your area please use the service desk at FrontCounter BC ([Locations - Natural Resource Online Services \(gov.bc.ca\)](#)) and they can provide you with the appropriate contact information.

Note: To ensure optimized use of HRC it is recommended to use **Microsoft Edge** Web browser.

6.1. Sample Plan Template Not Uploading to HRC

If you are experiencing issues uploading the excel sample plan template to HRC, ensure to double check a few key items prior to reaching out for technical help. Users may reference section 4.4 'Create a Sample Plan Using the Aggregate Sample Plan Template' within the guide for details.



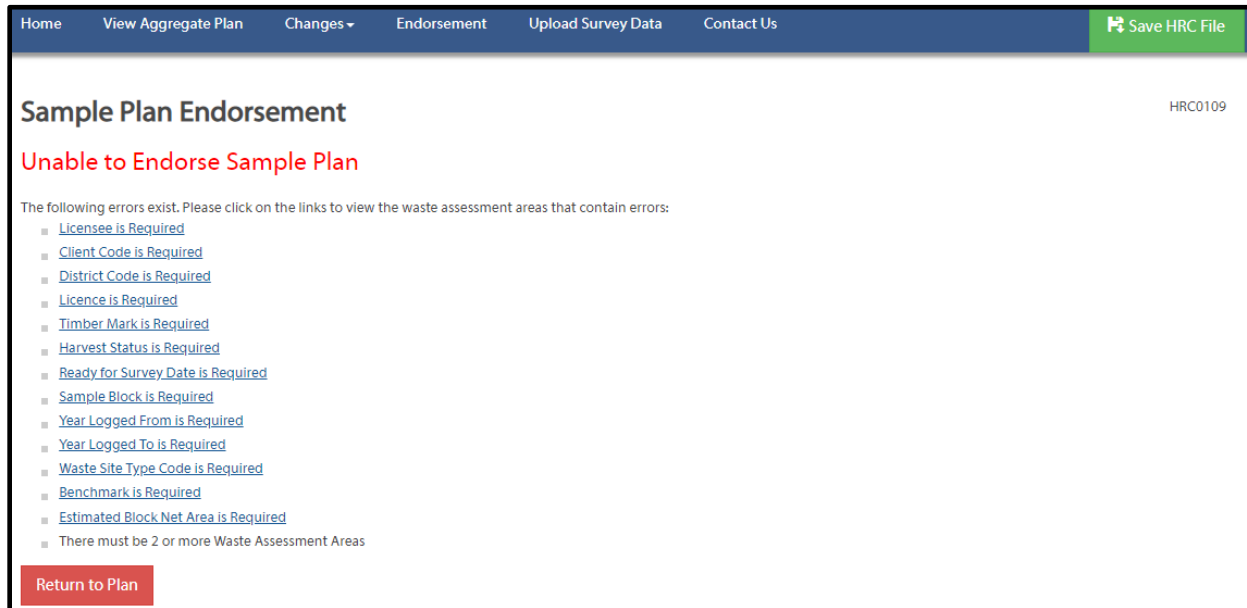
Users may be presented with an error window depicting issues with the uploading process. Make sure to address each warning. Correct each item within the excel Aggregate Sample Plan Template then, reupload.

- 'Warning: Row 10 has been left blank'. A common error users may experience when uploading the Aggregate Sample Plan Template into HRC is entering data at the bottom of the excel document. All waste assessment data must originate from row 11.
- Are you using correct stratum code combinations? The Aggregate Sample Plan Template will not upload when the incorrect stratum codes are utilized. If you are unsure what codes to use, reference Table 9-2 in the Waste Manual.
- What version of the sample plan template has been utilized? It is essential to utilize the most recent sample plan template to ensure proper upload of all relevant aggregate information. Navigate to the HRC home page and click on the 'download interior aggregate sample plan template' link for the most up to date version.

- What plot plan method is utilized? Users may experience issues when uploading the Aggregate Sample Plan Template if multiple pile stratum with the same stratum code, but different plot plan method is utilized (Estimate vs Actual). The same plot plan method must be used throughout the stratum type.
- Did you copy and paste data from another document? Review your data. Ensure the same fonts and formatting is used when pasting information from another spreadsheet.
- Has the survey type been selected (Ratio or SRS)? Review the sample plan template.
- It may be possible that duplicate WAA have been entered into the sample plan template. Review the sample plan template for duplicates entries, remove unnecessary data and attempt to reupload.

6.2. Sample Plan Not Endorsing

If you are experiencing issues with endorsement, double check a few key items prior to reaching out for technical help. Users may reference section 4.7 'Endorsing a Sample Plan' within the guide for detailed instructions.



If Users are presented with an error window depicting issues with the sample plan. Make sure to address and correct each error.

- Sample plan endorsement information is missing. Did you make sure to include all *required information within the sample plan endorsement page?
- Double check the phone number (###-###-####) and email (user@domain.com) format.
- Did you select a certification statement?
- Review the plot plan method. Is a plot plan method selected? If 'Actual' is selected, make sure that the 'Actual number of piles' field is populated.

6.3. Sample Plan Report Not Generating

If you are experiencing issues generating the sample plan report, review a few key items prior to reaching out for technical help. Users may reference section 4.9 'Generating a Sample Plan Report' within the guide for detailed instructions.

- Is the Sample plan endorsed? The signing professional must complete the endorsement process prior to generating a sample plan report.
- Perhaps it has generated but is auto saved in a unique location on your computer. All files downloaded from HRC typically will get downloaded to your PC's Downloads folder. (Unless settings have been adjusted).
- Does your browser have permission to accept downloads from the site? Review your browser and firewall settings. Ensure your browser has permission to accept downloads from the specified site.
- Review each WAA's details on the 'Aggregate Sample Plan - Waste Assessment Area Information' screen and ensure each mandatory field (marked with an asterisk) has been filled out.
- Has the RU been included for each WAA?
- Review the plot plan method. Is a plot plan method selected? If 'Actual' is selected, make sure that the 'Actual number of piles' field is populated.

6.4. Sample Plan Report has No Values

If you are experiencing issues with values not populating on the sample plan report review your excel settings to ensure they are correct. Users may reference section 4.9 'Generating a Sample Plan Report' within the guide for detailed instructions.

- Save the sample plan as a new .hrc file, close the browser, reopen HRC, upload the new .hrc file. Regenerate the report.
- If the survey data (.EFW file) has been uploaded. Users can delete the survey data, save the sample plan as a new .hrc file, close the browser, reopen HRC, upload the new .hrc file and reupload the survey data (.EFW file). Regenerate the report.

6.5. Survey Data (.efw file) is Not Uploading to the Aggregate Sample Plan

If you are experiencing issues uploading survey data to HRC, ensure to review some key items, as addressed below. For more details, Users may reference section 4.10 of this User Guide for uploading survey data to an aggregate sample plan.



Users may be presented with an error window depicting issues with the uploading process. Make sure to address and correct each item.

- Has the sample plan been endorsed? Follow instructions outlined in section 4.7 above, for details.
- Survey data is already uploaded to the sample plan. Double check to make sure the survey data was not already uploaded. Users can always delete, then reupload the survey data to the sample plan.
- The population type in the incoming .efw file may differ from what is in the sample plan (Single Block not Aggregate). Does the population type match? If not, adjust and try to reupload.
- The survey type (SRS or Ratio) in the incoming .efw file may differ from what is in the sample plan. Does the survey type match? If not, adjust and try to reupload.

- Do the stratum codes in the incoming .efw file match the stratum codes in sample plan match exactly? HRC will not accept survey data that does not have matching stratum codes. If they differ, adjust and try to reupload.
- Are there missing stratum codes either in the EFW file or in the sample plan? HRC will not accept stratum codes missing from the sample plan that are in EFW file or stratum codes missing in the EFW file that are in the sample plan. If they differ, adjust and try a reupload.
- Do the final stratum areas in the sample plan and in the .EFW file match? Users may be presented with a 'Total net area of stratum not matching' error if the final stratum areas are not updated. Confirm and update final stratum areas as needed then reupload the EFW file.
- Review each WAA, ensure each WAA has a survey date.
- **If all the above appears correct and data is still not uploading:**
 - **Save sample plan as a new .hrc file.**
 - **Close HRC**
 - **Reopen HRC**
 - **Upload the new .hrc file for the sample plan.**
 - **Attempt to upload the .efw file.**

6.6. BTS Report, Sampling STATS Report or XML is Not Generating

If you are experiencing issues generating the block type summary report, sampling stats report or generating the XML for either aggregate population or single block population, ensure to review some key items prior to reaching out for technical help.

Guidance for either aggregate or single block population is much the same. Please reference the following sections of this User Guide for details:

- 4.13 – How to generate a block type summary report for an aggregate,
 - 4.14 – How to generate an aggregate sampling statistics report,
 - 5.2 – Generating a block type summary report for a single block population,
 - 5.3 – Generating a sampling statistics report for a single block population.
- Review your .hrc file to make sure the survey data has been uploaded. If the desired report or XML file is still not generating, delete, then reupload survey data to the sample plan.

- If the desired report or XML file is still not generating, save the sample plan as a new .hrc file, close the browser, reopen HRC, upload the new .hrc file and attempt to generate the report.

6.7. BTS Report is Missing a Stratum

If the generated block type summary report is missing a stratum, review the .hrc file.

- Review your stratums. It is possible that the missing stratum does not exist in the sample plan/ WAA.
- If it should exist in your sample plan, review your WAA's to ensure that it is present.
- Review the missing stratum(s). Make sure that the final stratum net area is greater than 0.00 ha. If the missing stratum is intended to be included in the WAA adjust the area appropriately. Otherwise, if a waste assessment area contains any stratums with a Final Stratum Net Area of 0.00 ha delete the stratum from the WAA.
- Make sure the survey data (.EFW file) has been uploaded. If it has not, upload the .EFW file.
- If the survey data (.EFW file) has been uploaded. Users can save the sample plan as a new .hrc file, close the browser, reopen HRC, upload the new .hrc file and reupload the survey data (.EFW file). Regenerate the report.
- Because 'non-sample blocks' will be given the average stratum areas derived from the 'Sample Blocks' it is a possibility that a WAA might have been allocated a stratum area of 0.00 ha. As such, the application would have removed the stratum from the compilation.

6.8. XML has a Stratum With No Volumes

If the generated XML file has a stratum depicting no volumes, review the .hrc file.

- Review your stratums. It is possible that stratum of note has a Final Stratum Net Area of 0.00 ha. If the stratum of note is intended to be included in the WAA adjust the area appropriately. Otherwise, if a waste assessment area contains any stratums with a Final Stratum Net Area of 0.00 ha, **remove the stratum from the WAA.**

- Make sure the survey data (.EFW file) has been uploaded. If it has not, upload the .EFW file. If the survey data (.EFW file) has been uploaded. Users can save the sample plan as a new .hrc file, close the browser, reopen HRC, upload the new .hrc file and reupload the survey data (.EFW file). Regenerate the report.

6.9. Percent Estimate Stratum Volumes Not Matching

If you are experiencing issues with the percent estimate stratum volumes do not match the EFW file, review each percent estimate plot in EFW file to ensure:

- 'Plot Estimated Volume' field is >0 m3.
- Percent Estimate for each piece in the plot is >0.
- Total Percentage of all pieces = 100.0%
- Correct any errors and reupload the EFW file to the sample plan.

6.10. Duplicate Stratum Type In WAA

If you are experiencing issues with HRC when creating a new stratum type in a WAA and a duplicate stratum type has populated in the same WAA.

- Delete one of the duplicate stratum types from the WAA and save your .hrc file.

6.11. Cannot Find the Downloaded File from HRC

If you are experiencing issues locating any downloaded file generated from HRC review some key items prior asking for technical help.

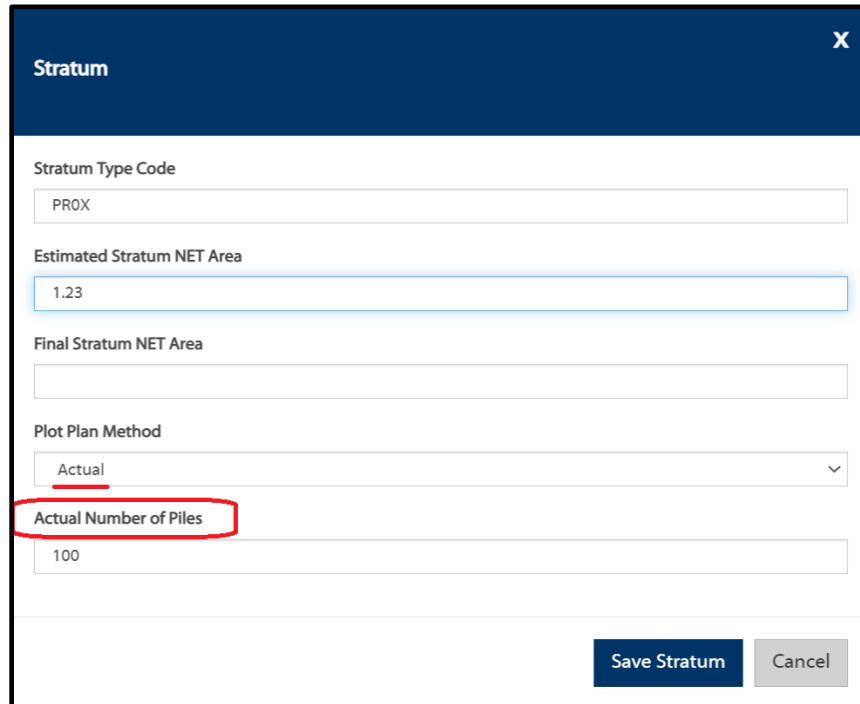
- All files downloaded from HRC will typically get downloaded and stored to your PC's 'Downloads' folder. (Unless settings have been adjusted).
- Does your browser have permission to accept downloads from the specified site? Check the browser and firewall settings so that it allows downloads from the site.

6.12. HRC Not Allocating Plots to Pile Stratums When the 'Actual' Plot Plan Method is Used

If you are experiencing an issue with HRC not allocating plots to pile stratums when the 'Actual' Plot Plan Method is used, and the Sample Plan Report is not generating, review the stratum

details and ensure all stratum information has been populated correctly. Please reference section 4.5.1 and 4.8.2 in the guide for additional details.

- Review the plot plan method. Is a plot plan method selected? Is the appropriate method selected?
- If 'Actual' is selected, make sure that the 'Actual number of piles' field is populated correctly. The 'Actual number of piles' must be greater than "0".



The screenshot shows a 'Stratum' dialog box with the following fields and values:

- Stratum Type Code: PROX
- Estimated Stratum NET Area: 1.23
- Final Stratum NET Area: (empty)
- Plot Plan Method: Actual
- Actual Number of Piles: 100

Buttons at the bottom: Save Stratum, Cancel.

6.13. Survey Date Not populating for 'non-sample blocks'

The survey date for 'non-sample blocks' will autogenerate based on the latest survey date from the 'sample blocks'.

If the survey date for a 'non-sample blocks' is not populating correctly in a sample plan:

- Review each survey date listed for each 'sample block'. Ensure that all 'sample blocks' have a survey date.
- Find the 'sample block' with the latest survey date. Delete the survey date and re populate.

6.14. Blank Survey date when uploading old HRC file

If a User uploads an existing aggregate sample plan that was created, professionally endorsed and has survey data uploaded through a previous version of HRC (prior to 1.6.0), the survey date field will be blank. The survey date may be populated by deleting the survey data.

6.15. Final Attempt

If HRC Users are unable to solve issues they may be experiencing, try this final problem-solving technique prior asking for technical help.

- Save the sample plan as a new .hrc file.
- Navigate to your browser settings and clear your browsing cache.
- Close the browser.
- Save and exit all other work.
- Restart your computer.
- Reopen HRC.
- Upload the new .hrc file for the sample plan.

6.16. Technical Help

If your issue is not described in this section, or if attempts to resolve the issue(s) are unsuccessful, please contact the District or Area Waste Specialist at the Ministry of Forests. If you are unsure who the Waste Specialist is in your area please use the service desk at FrontCounter BC ([Locations - Natural Resource Online Services \(gov.bc.ca\)](https://www2.gov.bc.ca/gov/content/industry/forestry/locations-natural-resource-online-services)) and they can provide you with the appropriate contact information.

To help identify and resolve any issues you may be experiencing, please be prepared with, and include the following to send via email:

- Description of the issue and outcomes.
- Description of troubleshooting attempts and outcomes.
- Attach all files used (.hrc file and .efw file).
- Screenshot of error messages.