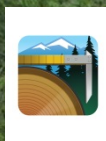


Ministry of Forests, Lands and Natural Resource Operations

EForWasteBC User Manual



Manual developed by:	Timber Pricing Branch
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1. Introduction

This manual describes the process for using the EForWasteBC application for the purpose of collecting waste assessment information in accordance with the requirements of the Provincial Logging Residue and Waste Procedures Manual and provincial waste policy.

The Ministry of Forests, Lands and Natural Resource Operations (FLNRO) receive waste survey information from licensees through the online Waste System. Using the EForWasteBC application, waste surveyors can complete a field waste assessment, generate reports and output files, email a data file to another user or upload the data into the online waste system.

EForWasteBC has been designed to collect waste information on both the coast and the interior. The application includes procedures for collecting waste using the traditional simple random sampling methods as well as the newly developed ratio sampling techniques. EForWasteBC allows the user to collect waste survey information within a block, stratum and plot. The user can then view the preliminary results of the survey on screen as the survey is completed.



2. System Requirements and Installing the EForWasteBC Application

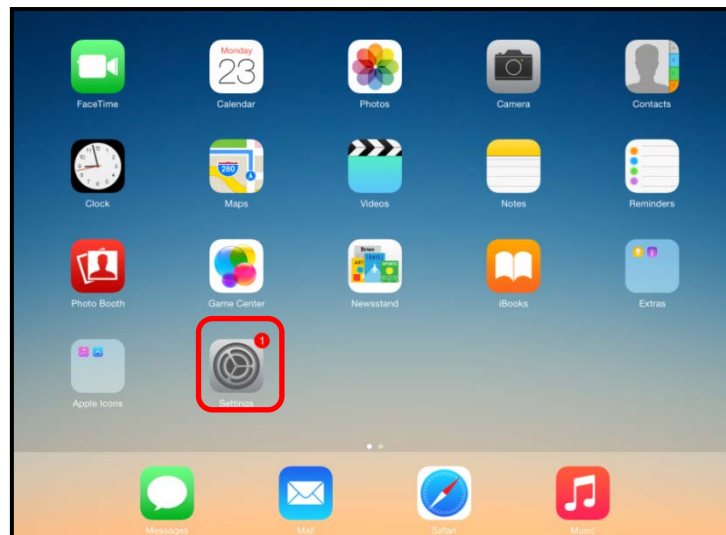
2.1. EForWasteBC System Requirements

EForWasteBC is an application designed specifically for the fourth generation iPad's running iOS version 10.0.0. IOS (**i**Pad **O**perating **S**ystem) is the operating system used on Apple devices and is the equivalent of the Windows operating system on the PC platform. At this time the EForWasteBC application will not work on other (Android) types of devices.

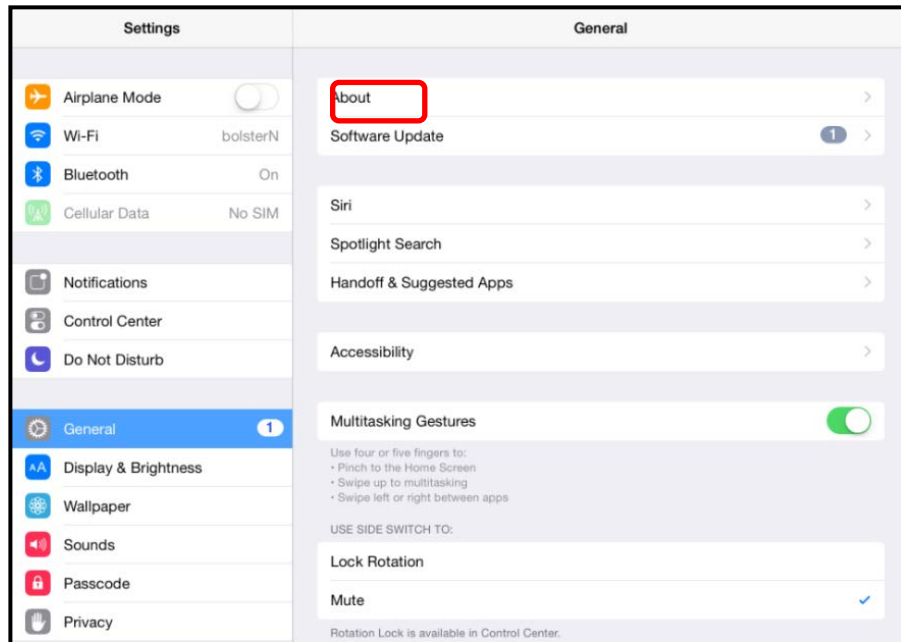
Note: Once installed, iOS updates cannot be uninstalled on iPads (Unlike windows PC updates). Do not install any iOS updates to iPads running EForWasteBC until you receive an update from the App store. Use of an incompatible IOS may cause the application to not operate correctly.

To check the version of your iPad's iOS:

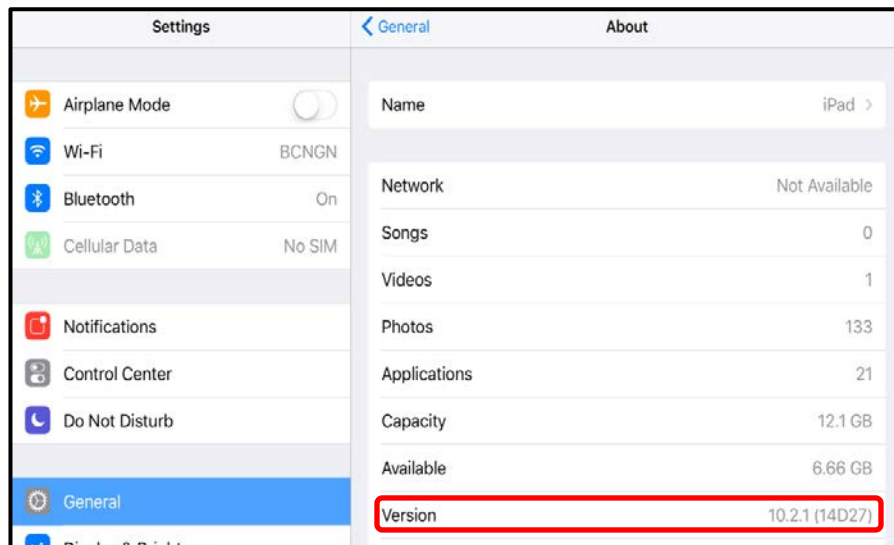
1. Navigate to the home screen and tap the **Settings** icon.



2. In the Settings sidebar, tap **General** and then tap **about**.



3. The iOS version is shown in the **Version** field.



2.2. Installing the EForWasteBC Application

Users can download the EForWasteBC application from the APP store. Search for 'EForWasteBC'. The application will then self-install onto your iPad.

Users unfamiliar with general tools and usage of the iPad can refer to [Appendix B: iPad Basics](#) at the end of this document for general iPad usage.

2.3. Opening the EForWasteBC Application

To open the EForWasteBC application, navigate to the home screen and tap the **EForWasteBC** application icon.



3. EForWasteBC Calculation Conventions

EForWasteBC is a waste data collection and compilation application that uses many calculations to produce the results and reports. Rounding of calculations has been completed in a number of sections of the software applied as follows:

3.1. Plot Level

- Volumes – 4 significant figures (0.0000)
- Values – 2 significant figures (\$0.00)

3.2. Stratum Level

- Volumes – 4 significant figures (0.0000)
- Values – 2 significant figures (\$0.00)

3.3. Block Level

- Volumes – 4 significant figures (0.0000)
- Values – 2 significant figures (\$0.00)

3.4. Reports

- Species/Grade Volumes - 4 significant figures (0.0000)
- Species/Grade Values – 2 significant figures (\$0.00)

3.5. Summary Totals

- Volumes - 2 significant figures (0.00)
- Values – 2 Significant Figures (\$0.00)

Note: In many cases EForWasteBC uses more significant figures than the online waste system. In some calculations this may result in small discrepancies between results from EForWasteBC verses the online Waste System.



4. EForWasteBC Page naming

The various pages that control the use of EForWasteBC have been named to assist in the use of the application. The pages have been named by menu topic and then sequentially as the user progresses into the application, for example:

- >Menu topic 'New Block'
 - >Ifor202 'Cut block – New Block'
 - >Ifor203 'Stratum'
 - >Ifor204 'Plot' and 'Piece' data

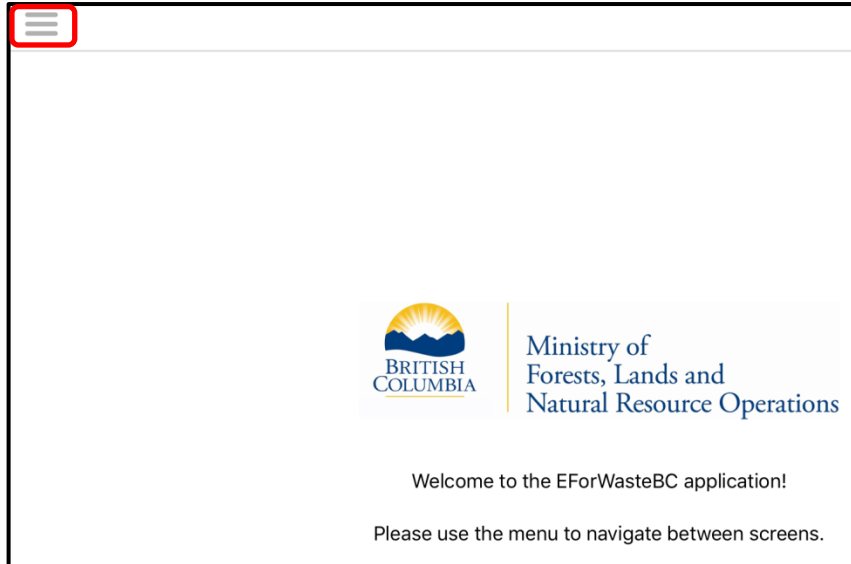
Note: The application platform was designed from a previous application called iFORWASTE. The page names still carry the 'IFOR(____)' title from this previous application. The naming convention will be updated in future enhancements.



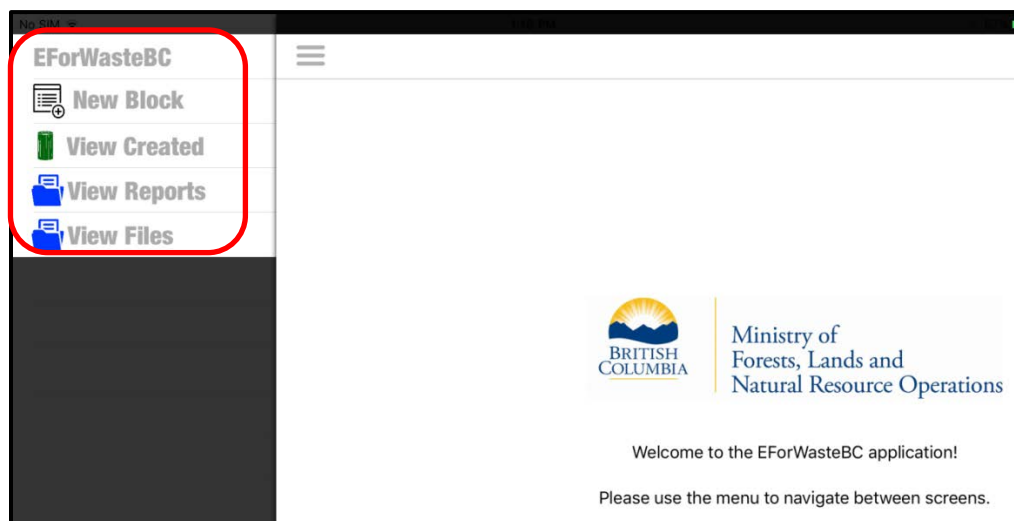
5. The EForWasteBC Menu

The EForWasteBC Menu can be accessed by tapping the EForWasteBC Menu button present at the top left of all screens.

From the EForWasteBC menu, the users can select any of the following options:



- **New Block (IFOR202):** Create a new block to begin entering waste survey data [Section 7- New Block](#)
- **View Created (IFOR601):** View and select existing cut blocks [Section 8 View Created](#)
- **View Reports (IFOR 301):** View and select reports [Section 8 - Reports](#).
- **View Files (IFOR 701):** View and select files for export. [Section 10 – View Files](#)



6. The Cut Block Screen (IFOR 202)

The Cut Block screen allows the Waste Surveyor to enter the cut block identification information.

The Cut Block information screen is broken into 5 sections:

1. Cut Block Information ([Section 6.1](#))
2. Timber Mark Information ([Section 6.2](#))
3. Stratum Information ([Section 6.3](#))
4. Cut Block Value/Volume Table ([Section 6.4](#))

Timber
Mark

Cut Block
Information

(IFOR 202) Cut Block - New Block Save

Timber Mark	Area (ha)	Waste Monetary Reduction Factor	Vol/ha (m ³ /ha) Avoid Gr 2 or BTR	Benchmark (m ³ /ha)	Current WMRF	Edit Timber Mark
12345	30.0	Applied	43.01	35.00	0.1862	➤

Reporting Unit No.	<input type="text" value="1"/>	Return Number	<input type="text"/>
CP / Cutblock	<input type="text" value="2"/>	Surveyor Licence	<input type="text"/>
Licence	<input type="text" value="A12345"/>	WASTE Surveyor	
Location	<input type="text"/>	Name	<input type="text"/>
Logged From	<input type="text"/>	Professional Designation	<input type="text"/>
Logged To	<input type="text"/>	Registration Number	<input type="text"/>
Logging Complete	<input type="text"/>	Position	<input type="text"/>
Survey Date	<input type="text"/>	Notes	<div style="background-color: yellow; height: 40px;"></div>
Net Area (ha)	<input type="text" value="30.00"/>		
NP/NF Area	<input type="text" value="5.00"/>		
Site Code	<input type="text"/>		

[Delete Cut Block](#) [Generate XML](#) [Generate EFW](#) [Report](#)

Stratums
Information

Cut Block Value
/ Volume Table

(IFOR 202) Cut Block - New Block Save

NP/NF Area	<input type="text" value="5.00"/>	
Site Code	<input type="text"/>	

Stratums [Add Stratum](#)

Waste Type	Harvest Method	Plot Size	Waste Level	Area (ha)	
D	C	0	L	20.00	Delete ➤
R	G	0	H	10.00	Delete ➤

Total Value	Original
Billable Volume (m ³ /ha)	\$120.00
Cut Control Volume (m ³ /ha)	58.1533
	109.3267

EForWasteBC Version 1.0.0 Test

[Delete Cut Block](#) [Generate XML](#) [Generate EFW](#) [Report](#)



Other options available to the users in the Cut Block screen are:

- **Menu:** Return the user to the menu.
- **Save:** Saves any edits made in the Cut Block screen.
- **Report:** Generate a report for the cut block.
- **Generate XML:** Allows the user to generate an XML file for upload into the online Waste System.
- **Generate EFW file:** Allows the user to generate an EFW file to send to another user or save as a backup.
- **Delete Cut Block:** Removes the block from the iPad

IFOR 202) Cut Block - New Block
Save

NP/NF Area

5.00

Site Code

Stratums Add Stratum

Waste Type	Harvest Method	Plot Size	Waste Level	Area (ha)	
D	C	0	L	20.00	Delete >
R	G	0	H	10.00	Delete >

Original

Total Value \$120.00

Billable Volume (m³/ha) 58.1533

Cut Control Volume (m³/ha) 109.3267

EForWasteBC Version 1.0.0 Test

Delete Cut Block
Generate XML
Generate EFW
Report



6.1. Cut Block Header Information

The Cut Block Information section of the Cut Block screen contains the general information for the cut block. The information required in this section is the same as is required within the online Waste system. Much of this information is also required to complete the creation of an xml file for upload into the online system. Users are expected to be familiar with the terms and definitions of the various fields identified on this screen therefore, only minimal descriptions have been provided within this manual.

(IFOR 202) Cut Block - 10						Save
Timber Mark	Area (ha)	Reduction Factor	Avoid Gr 2 or BTR	(m ³ /ha)	WMRF	Edit Timber Mark
GC231U	20.0	Applied	0.00	35.00	0.0000	➔
<div> <div> Reporting Unit No. <input type="text" value="695"/> CP / Cutblock <input type="text" value="31U"/> <input type="text" value="10"/> Licence <input type="text" value="A57713"/> Location <input type="text" value="Cariboo"/> Logged From <input type="text" value="2016"/> Logged To <input type="text" value="2016"/> Logging Complete <input type="text" value="Mar-17-2016"/> Survey Date <input type="text" value="Mar-18-2016"/> Net Area (ha) <input type="text" value="20.00"/> NP/NF Area <input type="text"/> Site Code <input type="text"/> </div> <div> Return Number <input type="text" value="1234"/> Surveyor Licence <input type="text" value="1234"/> WASTE Surveyor Name <input type="text" value="Test"/> Professional Designation <input type="text"/> Registration Number <input type="text"/> Position <input type="text"/> Notes <div style="background-color: yellow; height: 40px;"></div> </div> </div>						
Delete Cut Block		Generate XML		Generate EFW		Report

6.2. Timber Mark Information

The Timber Mark Information section contains all information pertaining to the Timber Mark for the cut block.

(IFOR 202) Cut Block - 2						Save
Timber Mark	Area (ha)	Waste Monetary Reduction Factor	Vol/ha (m ³ /ha) Avoid Gr 2 or BTR	Benchmark (m ³ /ha)	Current WMRF	Edit Timber Mark
12345	15.0	Applied	171.24	4.00	0.9766	➔

To make edits to a Timber Mark for a Cut Block, tap the [Edit Timber Mark](#) link located at the top right of the cut block screen. This will open the **Timber Mark screen** (see [Section 7.3 – Timber Mark](#))



6.3. Stratum Information

The Stratum Information section of the Cut Block screen contains all information pertaining to the Stratum for the cut block. A Stratum is a unique and non-overlapping sub-unit of a population which is sampled as a unit for which separate sampling statistics are calculated. Each Stratum represents a portion of the survey net area and the total of the stratum areas must be exactly the same as the Block net area. ([See section 7.3.2 – Stratum](#))

Stratums					Add Stratum
Waste Type	Harvest Method	Plot Size	Waste Level	Area (ha)	
D	B	0	M	8	
R	R	0	M	2	
				0	Delete

6.4. Cut Block Value / Volume Table

The Cut Block Value/Volume Table at the bottom of the Cut Block screen displays the volume and value data for the block.

Total Value	Original \$120.00
Billable Volume (m ³ /ha)	58.1533
Cut Control Volume (m ³ /ha)	109.3267
EForWasteBC Version 1.0.0 Test	
Delete Cut Block	Generate XML Generate EFW Report

Note: As data is entered or changed at the Piece, plot and stratum level, the table changes in real time to reflect the new information.

6.5. Generate an XML and/or EFW file

From the cut block screen, cut block data can be exported into either XML or EFW file format. By clicking on the generate XML or EFW links data is exported to the appropriate file and stored on the iPad.

6.5.1. EFW Files

EForWasteBC (EFW) files contain the waste data used in the application. The EFW files can be transferred between iPads for creation or merging of blocks via email or iTunes

6.5.2. XML Files

EForWasteBC also generates an **Extensible Markup Language** (.xml) file for upload into the online Waste System. Generation of the xml file is based on the file SCHEMA required for upload through the Electronic Submission Framework (ESF). The Block Header information must meet the requirements of this SCHEMA to generate the xml file.



(IFOR 202) Cut Block - 10							Save
Timber Mark	Area (ha)	Reduction Factor	Avoid Gr 2 or BTR	(m³/ha)	WMRF	Edit Timber Mark	
GC231U	20.0	Applied	0.00	35.00	0.0000	➔	

Reporting Unit No.	695	Return Number	1234
CP / Cutblock	31U 10	Surveyor Licence	1234
Licence	A57713	WASTE Surveyor	
Location	Cariboo	Name	Test
Logged From	2016	Professional Designation	
Logged To	2016	Registration Number	
Logging Complete	Mar-17-2016	Position	
Survey Date	Mar-18-2016	Notes	
Net Area (ha)	20.00		
NP/NF Area			
Site Code			

Delete Cut Block	Generate XML	Generate EFW	Report
------------------	--------------	--------------	--------

6.5.2.1. Uploading an XML file into the Waste System

Once an XML file is generated in IFOR 202 and subsequently emailed or uploaded it can be saved on the user's computer and then uploaded through the [Electronic Submission Site](#) into the [Waste System](#)



6.6. Deleting a Cut Block

The waste surveyor can delete a cut block from the EForWasteBC application in order to delete cut blocks that are no longer needed on the iPad.

(IFOR 202) Cut Block - 10

Save

Timber Mark	Area (ha)	Reduction Factor	Avoid Gr 2 or BTR	(m ³ /ha)	WMRF	Edit Timber Mark
GC231U	20.0	Applied	0.00	35.00	0.0000	

Reporting Unit No.

695

Return Number

1234

CP / Cutblock

31U | 10

Surveyor Licence

1234

Licence

A57713

WASTE Surveyor

Location

Cariboo

Name

Test

Logged From

2016

Professional Designation

Logged To

2016

Registration Number

Logging Complete

Mar-17-2016

Position

Survey Date

Mar-18-2016

Notes

Net Area (ha)

20.00

NP/NF Area

Site Code

Delete Cut Block

Generate XML

Generate EFW

Report



Select the Delete link and a window will appear to confirm the deletion. Selection of 'Delete' will remove the block and all associated data from the iPad. Selection of 'Cancel' will return the user to the cut block screen.

The screenshot shows the EForWasteBC iPad app interface. At the top, it says '(IFOR 202) Cut Block - 1' with a 'Save' button. Below this are input fields for 'NP/NF Area' (value: 1.00) and 'Maturity Code'. A section titled 'Stratums' contains a table with columns: 'Waste Type', 'Harvest Meth...', 'Plot Size', 'Waste Level', and 'Area (ha)'. The first row has values 'S', 'B', and '10.00'. A 'Delete' button is next to the 'Area (ha)' column. A 'Delete Cut Block' dialog box is overlaid on the screen, with a red border. The dialog contains the text: 'Delete Cut Block', 'Warning - Deleting a cut block will remove the survey data and the check data in the application. Are you sure to delete?', and two buttons: 'Cancel' and 'Delete'. At the bottom of the screen, there are buttons for 'Delete Cut Block', 'Generate XML', 'Generate EFW', and 'Report'. A summary section shows 'Total Value' as '\$44.50', 'Billable Volume (m³/ha)' as '0.8481', and 'Cut Control Volume (m³/ha)' as '0.8481'. The version 'EForWasteBC Version 1.0.0 T...' is also visible.



7. Creating a block and entering data

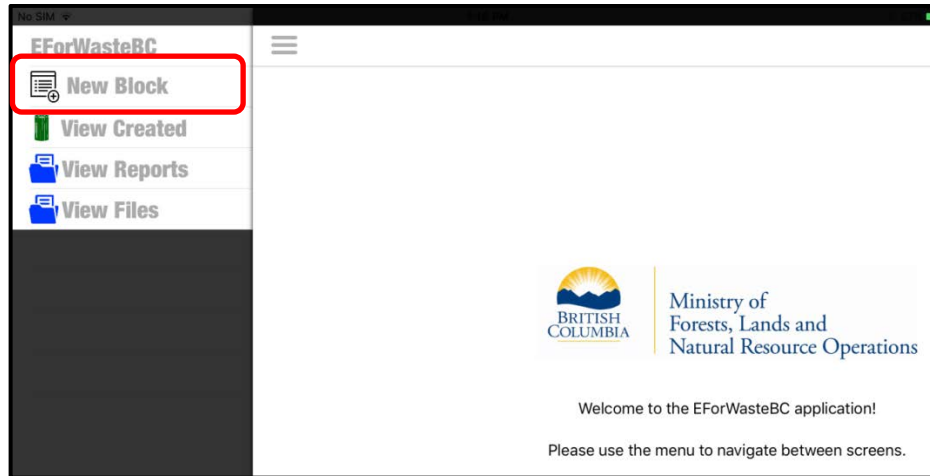
The flow to create a block has several routes depending on the type of survey to be completed. The outline below has been developed using the most complicated block sampling process (Ratio Sampling).

- New Block ([Section 7.1](#))
 - Select
 - Interior Block (SRS Survey)
 - Interior Block (Ratio Sampling)
 - Interior Block Aggregate SRS Survey
 - Interior Block Aggregate Ratio Sampling
 - Coast Block
 - Cut Block Screen (IFOR202)
 - Complete Header information
 - Edit Timber Mark (IFOR401) ([Section 7.2](#))
 - Complete Timber Mark Information
 - Add Stratum (IFOR202) ([Section 7.3](#))
 - Select
 - **Create Standard Stratum**
 - Create Standing Tree
 - Complete Stratum Information (IFOR203)
 - Ensure 'Prediction Plots' and 'Measure plots' is correct
 - Add a Plot
 - Complete Ratio Sampling Stratum information
 - Enter Plot number
 - Enter Green Volume
 - Enter Dry Volume
 - Confirm Estimation information
 - Complete plot header Information
 - 'Measure Plot' – **Yes**
 - Enter piece data
 - 'Measure Plot' – **No**
 - Back to Stratum header, move to next plot.



7.1. New Block

Select the new block menu option to record waste survey data.



When 'New block' is selected the user is asked to select the applicable survey type.

7.1.1. Select Survey Method

- **Interior SRS Survey** – The Simple Random Selection (SRS) survey method requires the establishment and measurement of all plots within a block. The Interior selection initiates an Interior data collection format.
- **Interior Ratio Sample survey** - The Ratio Sample Survey method requires the establishment and estimation of plots with measurement of a randomly selected portion of them.
- **Interior Block Aggregate SRS Survey** - The Aggregate SRS method requires the measurement of a predetermined number of samples within an aggregated sample population (group of cutblocks). The sample population is sampled as one unit.
- **Interior Block Aggregate Ratio Sampling**-The Aggregate Ratio method requires the establishment of estimation plots and randomly selected measure plots within an aggregated sample population.
- **Coast Block** – The coast block sampling system and the Interior SRS method use the same data collection method. Plots are established within a block and all piece information is collected at each plot. The coast block selection initiates a coastal data collection format.



(iFOR 202) Cut Block - New Block

Save

Timber Mark	Area (ha)	Waste Monetary Reduction Factor	Vol/ha (m³/ha) Avoid Gr 2 or BTR	Benchmark (m³/ha)	Current WMRF	Edit Timber Mark
Reporting Unit No.						
CP / Cutblock						
Licence						
Location						
Logged From						
Logged To						
Logging Complete						
Survey Date						
Net Area (ha)						
NP/NF Area						
Site Code						
Interior Cedar Maturity				L - Less than 141 years		

Delete Cut Block Generate XML Generate EFW Report

7.2. Cut Block Screen Details (iFOR202)

The cut block screen contains the block identifier information for the survey. Some or all of the information is required to upload the data into the online Waste system and or to merge files from two different iPads. The cut Block screen is created in one of two templates identified when a new block is created. The difference between the two screen templates are the block maturity/site code, waste billing rates and the selection of the appropriate log grades to be used on the plot data screens. The Cut Block Screen data entry field requirements and entry types are indicated below:

- **Reporting Unit No.:** Required
- **CP / Cut block:** Required
- **Licence:** Required
- **Location:** Optional, User entered
- **Logged From:** Required, user entered
- **Logged To:** Required, user entered
- **Logging Completion Date:** Required, Pop up window entry
- **Survey Date:** Required, Pop up window entry
- **Net Area (ha):** Required, user entered, 2 decimals
- **NP/NF area:** Required, User entered, 2 decimals
- **Maturity Code:** (Coast) Required, Pop up window entry
 - Mature



- 35m3/ha Benchmark, 15cm top DIB
 - Immature
 - 10 m3/ha Benchmark, 10cm top DIB
- **Site Code** (Interior): **Required**, Pop up window entry
 - Dry Belt 4 m3/ha
 - Transition 10m3/ha
 - Wet Belt 20m3/ha
- **Return Number**: **Required**, user entered
- **Surveyor Licence**: **Required if applicable**
- **Waste Surveyor**:
 - **Name**: **Required** (100 character maximum).
 - **Professional Designation**: **Required If registered**
 - **Registration Number**: **Required** if registered
 - **Position**: **Optional**, Position of the Waste Surveyor (100 character maximum).
- **Notes**: **Optional**, General notes regarding the cut block Waste Survey (256 character maximum).

7.2.1 Aggregate SRS (iFOR202, iFOR203, iFOR204)

The requirements and entry types for the iFOR202 (Cut Block) screen data entry fields are different from section 7.2 as some fields have been removed from the iFOR202 screen.

The iFOR202 (Cut Block) screen data entry field requirements and entry types are indicated below:

- **Reporting Unit No.:** **Required**
- **Survey Date**: **Required**, Pop up window entry
- **Net Area (ha)**: **Required**, user entered, 2 decimals
- **NP/NF area**: **Required**, User entered, 2 decimals
- **Maturity Code**: (Coast) **Required**, Pop up window entry
 - Mature
 - 35m3/ha Benchmark, 15cm top DIB
 - Immature
 - 10 m3/ha Benchmark, 10cm top DIB
- **Site Code** (Interior): **Required**, Pop up window entry
 - Dry Belt 4 m3/ha
 - Transition 10m3/ha
 - Wet Belt 20m3/ha
- **Return Number**: **Required**, user entered
- **Surveyor Licence**: **Required**, if applicable



- **Waste Surveyor:**
 - **Name:** **Required** (100 character maximum).
 - **Professional Designation:** Required, if registered
 - **Registration Number:** **Required**, if registered
 - **Position:** **Optional**, Position of the Waste Surveyor (100 character maximum).
- **Notes:** **Optional**, General notes regarding the cut block Waste Survey (256 character maximum)

The IFOR202 (Cut Block) screen for aggregate submissions is shown below.

App Store 10:44 PM Mon Jun 3 (IFOR 202) Cut Block - New Block Save

Timber Mark	Area (ha)	Waste Monetary Reduction Factor	Vol/ha (m ³ /ha) Avoid Gr 2 or BTR	Benchmark (m ³ /ha)	Current WMRF	Edit Timber Mark
<div> <div>Reporting Unit No. <input type="text"/></div> <div>Return Number <input type="text"/></div> <div>Surveyor Licence <input type="text"/></div> <div>WASTE Surveyor</div> <div>Name <input type="text"/></div> <div>Professional Designation <input type="text"/></div> <div>Registration Number <input type="text"/></div> <div>Position <input type="text"/></div> <div>Notes <div></div></div> <div>Survey Date <input type="text"/></div> <div>Net Area (ha) <input type="text"/></div> <div>NP/NF Area <input type="text"/></div> <div>Site Code <input type="text"/></div> <div>Interior Cedar Maturity <input type="text" value="L - Less than 141 years"/></div> </div>						

Delete Cut Block Generate XML Generate EFW Report



To create an aggregate population, all blocks and plots are entered as one EforWaste block. The Aggregate SRS survey requires the Licence, CP and Block name associated with each plot to be recorded when entering plot data on the iFOR204 (Plot) screen.

The iFOR204 (Plot) screen has additional data entry field requirements and entry types for each plot entered and are indicated below:

- **Licence:** Required
- **CP:** Required (not required if block has no CP)
- **Cut block:** Required

7:00 PM Sat Jun 1 (iFOR 203) Stratum = __0_ (iFOR 204) Plot - 1 Save

Plot Number	1	Measure %	100	Strip	0
Baseline		Shape		Surveyor Licence	
Size	0 - 50 m ²	Return #		Block	8
Licence	A12345	CP	C123		
Residue Surveyor		Assistant			
Weather					
Survey Date	Jun-01-2019				

Notes

Pieces Add Piece

				Gross Dimensions for pieces inside plot				Deductions for Rot/Holes				Outside Measure		Piece Vol	
id	Jo.	Line		(dm)				(dm)				Length	Int Code	Code	(m ²)

Report



The IFOR203 Stratum page shown below will display each plot with its associated Licence, CP and Block.

7:33 PM Sat Jun 1 (IFOR 202) Cut Block - New Block (IFOR 203) Stratum - SROX Save

Waste Type S - Open Slash/Clear... Area (ha) 20.00

Harvest Method R - Rubber-tired skid... # Plots 3

Assessment/Size 0 - 50 m² Notes

Waste Level X - Unstratified

Plots Add Plot

Plot Number	Licence	CP	Block	Baseline	Strip	Measure %	Shape
1	A12345	C123	8		0	100	Delete >
2	A12345	C123	2		0	100	Delete >
3	A12345	C123	4		0	100	Delete >

	Value (\$/ha)	Value (\$)	Volume (m3/ha)	Volume (m3)
Grade 1,2,4	\$0.00	\$0.00	122.77	2455.47
Grade 1,2	\$0.00	\$0.00	122.77	2455.47
Grade 4	\$0.00	\$0.00	0.00	0.00

Report

7.2.2 Aggregate Ratio (iFOR202, iFOR203, iFOR204)

The requirements and entry types for the iFOR202 (Cut Block) screen data entry fields are essentially the same as 7.2.1.

To create an aggregate ratio population, all blocks and plots are entered as one EforWaste block. The Aggregate Ratio survey requires the Licence, CP and Block name associated with each plot to be entered when entering plot data on the iFOR204 (Plot) screen page.

The data entry field requirements and entry types for the iFOR204 (Plot) Screen are:

- Licence: Required
- CP: Required (Not required if there is no CP)
- Cut block: Required



8:54 PM Sat Jun 1 (IFOR 203) Stratum - PB0X (IFOR 204) Plot - 1 Save

Plot Number Measure %

Baseline Shape Strip

Size Return # Surveyor Licence

Licence CP Block

Residue Surveyor Assistant

Weather Survey Date

Green Volume Dry Volume Measure Plot

Notes

* Prediction plot only, No piece measurements required

Pieces [Add Piece](#)

No.	Line	es	Gross Dimensions for pieces inside plot					Deductions for Rot/Holes			Outside Measure		Code	Piece Vol y (m ³)
			h (dm)	r)	nd	R)	nd	h (dm)	r)	R)	nd	length		

[Report](#)

The IFOR 203 page will display each plot with its associated Licence, CP and Block.

8:17 PM Sat Jun 1 (IFOR 202) Cut Block - New Block (IFOR 203) Stratum - SB0X Save

Waste Type Area (ha)

Harvest Method # Plots Prediction Plots Measure Plots

Assessment/Size Notes

Waste Level

Plots [Add Plot](#)

Plot Number	Licence	CP	Block	Baseline	Strip	Measure %	Shape	
1	A12345	C3	26		0	100		Delete >
2	A12345	C3	4		0	100		Delete >
3	A12345	C3	6		0	100		Delete >

	Value (\$/ha)	Value (\$)	Volume (m ³ /ha)	Volume (m ³)
Grade 1,2,4	\$0.00	\$0.00	0.00	0.00
Grade 1,2	\$0.00	\$0.00	0.00	0.00
Grade 4	\$0.00	\$0.00	0.00	0.00

[Report](#)



7.3. Edit Timber Mark screen (IFOR401)

The Timber Mark Data screen accessed from the 'Edit Timber Mark' icon on the cut block screen contains the details of the Timber Marks. If there is more than one timber mark within the cut block, the Waste Surveyor can add or edit both the Primary Timber Mark and Secondary Timber Mark.

Note: the secondary Timber Mark is currently not activated. It will be added in a future version of EForWaste.

In the Timber Mark section, there are different types of text fields available:

- **Grey filled boxes:** These boxes cannot be edited as they contain information from other screens or locked data.
- **White filled boxes:** These boxes can be edited with audit text/numeric values by the WASTE surveyor during the survey.

The editable fields in the Timber Mark screen are:

- **Timber Mark:** Enter the applicable timber mark for the cut block
- **Mark Area:** Enter the Net Area from the Cut Block Screen

Note: The ability to enter multiple timber marks within a block will be provided in future enhancements.
- **Waste Monetary Reduction Factor (block)** This field can be toggled between
 - **Benchmark applied** – Applies the applicable WMRF factor to the Waste Billing rate.
 - **Benchmark Not applied** – Does not apply the WMRF to the applicable waste billing rate. The Billing rate used in the application will be the unadjusted stumpage rate.
- **Conifer Sawlog:** The 12 month average stumpage Rate (\$/m3) for Coniferous sawlog grades. Enter the sawlog rate applicable to the timber mark. This information can be obtained from the HBS 'rating' tab. It is calculated in accordance with the waste manual. The waste billing rate will be the applicable stumpage rate multiplied by the WMRF I.E. Sawlog Rate \$10.25 X WMRF 0.7068 = Waste Billing rate \$7.25.
- **Billing Rate** is the stumpage rate (sawlog, deciduous, Coast HB U, X and Y grade, Interior 1 and 2) multiplied by the WMRF. The waste billing rate will be the applicable stumpage rate multiplied I.E. Sawlog Rate \$10.25 = Waste Billing rate \$10.25.



< (IFOR 202) Cut Block - 2
(IFOR 401) Timber Mark
Save

Primary Timber Mark
 Timber Mark: Primary Logging Complete (PLC) Date:
 Mark Area (ha):

Waste Monetary Reduction Factor (block)

 A = Avoidable (Gr 2 or better) (m³/ha) 171.2400
 B = Established Benchmark (m³/ha) 4.0000
 WMRF = (A-B)/A 0.9766

Stumpage Rate (\$/m³)

Conifer Sawlog	<input type="text" value="2.00"/>	1.95
Deciduous Sawlog	<input type="text" value="0.50"/>	0.49
Grade 4(5)	<input type="text" value="0.25"/>	0.25

Billing Rate

Conifer Sawlog	<input type="text" value="0.00"/>
Deciduous Sawlog	<input type="text" value="0.00"/>

Secondary Timber Mark
 Timber Mark:
 Mark Area (ha):

Waste Monetary Reduction Factor (block)

Stumpage Rate (\$/m³)

Conifer Sawlog	<input type="text" value="0.50"/>	0.00
Deciduous Sawlog	<input type="text" value="0.50"/>	0.00

Billing Rate

Conifer Sawlog	<input type="text" value="0.00"/>
Deciduous Sawlog	<input type="text" value="0.00"/>

A = Avoidable (Gr 2 or better) (m³/ha) 0.0000

Other options available to the users in the IFOR 203 Stratum screen are:

- **Cut Block - [Cut Block ID]**: Return the user to the Cut Block 202 screen.
- **Save**: Saves any edits made in the Stratum screen.



7.4. The Stratum Screen (IFOR203)

The Stratum screen allows stratum data to be added or edited. The Stratum screen consists of three sections:

1. Stratum Header Information (see [Section 7.3.1 – Stratum Information](#))
2. Plot Information (see [Section 7.3.2 – Plot Information](#))
3. Value/Volume table (see [Section 7.4.6 –Value/Volume Table](#))

Stratum Information

Plot Information

Stratum Level Value / Volume Table

Plot Number	Baseline	Strip	Measure %	Shape
1		0	100	
3		0	100	
5		0	100	
10		0	100	
12		0	100	

Value (per ha)	Original
Billable Volume (m³/ha)	\$0.00
Cut Control Volume (m³/ha)	0.0000

Waste Type	Harvest Method	Level	Area (ha)
D	C		20.00
R	G		10.00

Total Value	Original
Billable Volume (m³/ha)	\$120.00
Cut Control Volume (m³/ha)	58.1533



Plot Stratum - The Plot Stratum (IFOR203) is used for all plot based data collection. When selected a Stratum header screen is generated which leads to the plot data entry screen (IFOR204). Plot piece data can then be collected.

Waste Type: S - Open Slash/Clearcut Area (ha):

Harvest Method: B - Hoe chucking # Plots: 5 Prediction Plots: 18 Measure Plots: 6

Assessment/Size: 2 - 200 m² Notes:

Waste Level: X - Unstratified

Plots [Add Plot](#)

Plot Number	Baseline	Strip	Measure %	Shape
1		0	100	Delete ➔
3		0	100	Delete ➔
5		0	100	Delete ➔
10		0	100	Delete ➔
12		0	100	Delete ➔

Value (per ha) Original \$0.00
 Billable Volume (m³/ha) 0.0000
 Cut Control Volume (m³/ha) 0.0000

EForWasteBC Version 1.0.0 Test [Report](#)

Standing Tree Stratum - The Standing Tree Stratum type is used to collected Percent estimate and 100% scale data. When selected a combination Stratum header and data entry screen (IFOR204) is generated. The appropriate percent estimate or 100% scale information is then entered.

Waste Type: S - Open Slash/Clearcut Area (ha): 0.50

Harvest Method: T - Tractor (cat) # Plots: 1

Assessment/Size: R Notes:

Waste Level: E

Plots

Plot Number	Baseline	Strip	Measure %	Shape
1		0	100	➔

Value (per ha) Original \$1198.24
 Billable Volume (m³/ha) 458.0000
 Cut Control Volume (m³/ha) 458.0000

EForWasteBC Version 1.0.0 T... [Report](#)

Other options available to the users in the IFOR 203 Stratum screen are:

- **Cut Block - [Cut Block ID]**: Return the user to the Cut Block 202 screen.
- **Save**: Saves any edits made in the Stratum screen.
- **Report**: Generate a report for the Stratum.



7.4.1. Stratum Header Information

The Stratum header Information section contains the identification details, area and a listing of the created plots for the particular stratum. Both the White and Yellow filled boxes can be edited with Survey information.

The screenshot displays the 'Stratum - SB2X' header information. The 'Waste Type' is set to 'S - Open Slash/Clearcut'. The 'Harvest Method' is 'B - Hoe chucking'. The 'Assessment/Size' is '2 - 200 m²'. The 'Waste Level' is 'X - Unstratified'. The 'Area (ha)' field is empty. The '# Plots' is 5, 'Prediction Plots' is 18, and 'Measure Plots' is 6. The 'Notes' field is highlighted in yellow. The 'Plots' table lists five plots with their respective Baseline, Strip, Measure %, and Shape. The summary statistics at the bottom show 'Value (per ha)' as \$0.00, 'Billable Volume (m³/ha)' as 0.0000, and 'Cut Control Volume (m³/ha)' as 0.0000.

Plot Number	Baseline	Strip	Measure %	Shape
1		0	100	
3		0	100	
5		0	100	
10		0	100	
12		0	100	

Value (per ha)	Original	\$0.00
Billable Volume (m³/ha)		0.0000
Cut Control Volume (m³/ha)		0.0000

The Stratum naming conventions are outlined below:

- **Waste Type:** Select one of the following Waste Types:
 - Dispersed Types:
 - ☐ S - Open Slash/Clear cut
 - ☐ F - Felled and bucked
 - ☐ G - Group retention
 - ☐ D - Dispersed Retention
 - ☐ T - Standing Stem
 - Accumulated Types:
 - ☐ L - Landings
 - ☐ R - Roadside
 - ☐ W - Window, Debuilt Road
 - ☐ C - Cold Decked
 - ☐ P - Spot accumulation
 - ☐ O - Off-site landing



- **Harvest Method:** Select one of the following Harvest Methods:
 - S - Spar (high lead)
 - G - Grapple yarder
 - T - Tractor (cat)
 - P - Horse
 - R - Rubber-tiered skidder
 - M - Hand logging
 - B - Hoe chucking
 - H - Helicopter
 - W - Wyssen
 - O - Other
 - C - Any combination
- **Assessment/Size:** Select one of the following Assessment Sizes:
 - 0 - 50 m2
 - 1 - 100 m2
 - 2 - 200 m2
 - 3 - 300 m2
 - 4 - 400 m2
 - 5 - 500 m2
 - 6 - 600 m2
 - 7 - 1 000 m2
 - 8 - 5 000 m2
 - 9 - 10 000 m2
 - E - Estimate Percent
 - O- Ocular Estimate
 - S - 100% Scale
- **Waste Level:** Select one of the following Waste Levels:
 - L - Light
 - M - Medium
 - H - Heavy
 - X - Unstratified
- **Area (ha):** The area of the stratum.
- **Notes:** The Waste Surveyor can enter any general notes regarding this Stratum (256 character maximum).



Note: Any edits to the fields above will result in the Stratum Name being updated. The Stratum name is defined as 4 characters generated by:

1. The **FIRST** character (alpha) is the one-letter code for Waste Type.
2. The **SECOND** character (alpha) is the one-letter code for Harvest Method.
3. The **THIRD** character (numeric) is the one-digit number which identifies the Assessment Method/Size used.
4. The **FOURTH** character (alpha) is the one-letter code for waste level.

7.5. The Plot Screen (IFOR204)

7.5.1. The Plot Header

The plot header information contains all the information required to identify the plot location, size, surveyor and survey date. Four plot header templates can be generated depending on the type of survey and stratum, Basic SRS plot, Ratio Sampling plot, Percent estimate and 100% piece scale. Both the Interior SRS survey and Coast Survey use the same plot header template. The Ratio sampling method uses an adapted plot header that indicates plot volume estimates. The Percent Estimate and 100% piece scale use a slightly adapted format very similar to the basic plot header. The plot header screen data entry field requirements and entry types are indicated below:

In the Plot header Information section, there are different types of text fields available:

- **Grey filled boxes:** These boxes cannot be edited as they contain auto filled information.
- **White filled boxes:** These boxes can be edited with audit text/numeric values by the waste surveyor.

(IFOR 203) Stratum - PBOX		(IFOR 204) Plot - 6		Save
Plot Number	6	Measure %	100	
Baseline		Shape		Strip 0
Size	0 - 50 m ²	Return #	234	Surveyor Licence 341D
Residue Surveyor	Ron Mecredy			
Weather		Assistant		
Survey Date	Mar-29-2017			
Green Volume	1.00	Dry Volume	2.00	Measure Plot YES
Notes				



- **Plot number:** Required
 - Interior SRS and Coast – Auto filled sequentially
 - Interior Ratio Sampling – User defined during plot volume estimations
- **Baseline:** Optional, user defined
- **Size:** Auto filled at stratum creation
- **Residue Surveyor:** Required, Auto filled from Cut Block Screen or User entered
- **Assistant:** Optional, User entry
- **Weather:** Optional, User entered
- **Survey Date:** Required, Auto filled
- **Green Volume:** Filled at plot creation
- **Dry Volume:** Filled at plot creation
- **Measure Plot:** Auto Entry
- **Measure %:** Required, Default 100%, User entry
- **Shape:** Required, Pop up entry
 - C - Circular
 - S - Square
 - R - Rectangular
 - X - 100% scale
- **Return#:** Required, User entry
- **Strip:** Optional, User entry
- **Surveyor Licence:** Required, User entry
- **Notes:** Optional, User entry, (256 characters maximum).



7.5.2. Creating a new plot

Plots are created by tapping the Add Plot link located at the middle of the right side of the Stratum Screen.

7.5.2.1. Basic plot functions, Interior SRS and Coast surveys

Interior SRS and Coastal plots are created with the plot number, plot size, measure %, surveyor name, survey date auto filled. User entry of the baseline, shape, strip, weather, assistant and notes is required by the user.

Plot Header
Information

(IFOR 203) Stratum - CBEH (IFOR 204) Plot - 1 Save

Plot Number Measure %

Baseline Shape Strip

Size Return # Surveyor Licence

Residue Surveyor

Weather Assistant

Survey Date

Notes

Total Estimated Volume Total Percentage

Plot Data
entry

(IFOR 203) Stratum - DC0L (IFOR 204) Plot - 1 Save

Notes

Pieces Add Piece

Checked	Piece No.	Border Line	Species	Kind	Class	Gross Dimensions for pieces inside plot				Grade	Deductions for Rot/Holes			Outside Measure		Comment Code	Note	Survey Volume (m³)	
						Length (dm)	Top (R)	Top End	Butt (R)		Butt End	Length (dm)	Top (R)	Butt (R)	Decay				Far End
NEW	1	I	BA	L	A	30	3	C	10	C	2				0	0			0.0514
NEW	2	I	LO	L	A	30	4	N	15	C	4				0	0			0.1136
NEW	3	I	SP	L	U	31	13	C	19	N	2				0	0	US		0.2581



7.5.2.2. Adding Plot pieces

Plot pieces are added by selecting the 'Add Piece' link. A new data line is added each time the link is tapped. The application also allows the surveyor the ability to enter multiple pieces with the same characteristics with a single entry. Multiple pieces can be entered using the following procedure:

1. Tap the 'NEW' letters at the left of the screen.
2. On the 'Modify Piece' pop up window, select 'Duplicate'

3. In the 'Number of Copies' pop up window, enter the number of pieces required.

4. The application will add the indicated number of pieces to the plot in numbered sequence.

The following fields can be added or edited into the Pieces table:

- **Border Line:** Select one of the following border line code values:
 - B - Borderline piece (measure inside portion only)
 - I - Completely inside plot
 - X - Length exceeds plot width



- **Species:** Select one of the following tree species code values:
 - AL - Alder
 - AR - Arbutus
 - AS - Aspen
 - BA - Balsam
 - BI - Birch
 - CE - Red Cedar
 - CO - Cottonwood
 - CY - Cypress
 - FI - Douglas Fir
 - HE - Hemlock
 - LA - Larch
 - LO - Lodgepole Pine
 - MA - Maple
 - OT - Other (Cherry)
 - SP - Spruce
 - UU - Pacific Yew
 - WB - Whitebark Pine
 - WH - White Pine
 - WI - Willow
 - YE - Yellow Pine
- **Kind:** Select one of the following Material Kind code values:
 - B – Bucking/trimming waste
 - D - Down tree/snag
 - L - Log, slab, Sliver, chunk
 - S – Stump
 - T - Tree
 - U - Undersize
 - W - Bucking/trimming waste
 - X - Special Product
- **Class:** Select one of the following Waste Class code values:
 - A - Avoidable
 - U – Unavoidable
- Gross Dimensions for pieces inside plot fields:
 - **Length (dm):** Enter the length (in decimeters) the "in plot" length of the piece.
 - **Top (R):** Enter the gross diameter (in Radians), inside bark of the top end.
 - **Top End:** Select one of the following Top End code values:
 - B - Broken



- C - Cut (bucked)
- N - Natural
- P - Pencil
- U - Undercut
- X - Buried
- **Butt (R):** Enter the gross diameter (in Radians) the inside bark of the large end.
- **Butt End:** Select one of the following Butt End code values:
 - B – Broken
 - C - Cut (bucked)
 - N - Natural
 - P - Pencil
 - U - Undercut
 - X - Buried
- **Grade:** Select one of the following Grade code values:
 - The following Grades are available for cut blocks in the Coast Resource Area
 - B - Peeler
 - C - Peeler
 - D - Lumber
 - F - Lumber
 - H - Sawlog
 - I - Sawlog
 - J - Gang Sawlog
 - K - Cedar Shingle
 - L - Cedar Shingle
 - M - Cedar Shingle
 - U – Utility Sawlog
 - W – Deciduous Sawlog
 - X – Chipper
 - Y - Lumber reject
 - Z - Firmwood reject
 - The following Grades are available for cut blocks in the Interior Resource Area
 - 1 - Premium Sawlog
 - 2 - Sawlog
 - 4 - Lumber Reject
 - Z - Firmwood reject
 - 6 - Undersize
- **Deductions for Rot/Holes fields:**



- **Length (dm):** Enter the length (in Decimeters) for the deduction.
- **Top (R):** Enter the gross diameter (in Radians) the diameter deduction for the top end.
- **Butt (R):** Enter the gross diameter (in Radians) the diameter deduction for the butt end.
- **Decay:** Select one of the following Decay values:
 - B- *Butt rot*
 - C- *Conk rot*
 - H - *Heart rot*
 - P - *Pocket rot*
 - R - *Ring rot*
 - S- *Sap rot*
 - T- *Top rot*
- **Outside Measures fields:** (Not required)
 - **Far End:** Enter the diameter (in Radians) of the actual end of the piece when it is outside the plot boundary. This value can be estimated.
 - **Add Length:** Enter the length (in metres) the additional length of the piece that is outside the plot boundary. This value can be estimated.
- **Comment Code:** The Waste Checker can select one of the following comment codes:
 - BK- Breakage
 - BN - Bunch knots
 - BR - Buried
 - CA - Candelabra
 - CC - Creek cleaning
 - CF – Cat face
 - CK - Crook
 - CL - Culvert log
 - CP - Company piece
 - CR - Severe Crook
 - DP - Dead potential
 - DU - Dead useless
 - FC – Frost crack
 - FK - Fork
 - FL - Fluted Butt (NOT IN XML)
 - FP - Fence post
 - FW - Firewood
 - GL – Guy line stump
 - HK - Hooked
 - HN - Heavy knots



- HP - Helipad
- HS - Holding stump
- IN - Inaccessible
- KN - Knots
- LB - Long butt
- LN - Large knots
- MB - Machine breakage
- MP - Multiple part piece
- NP - Nil plot
- OB - Obstructed
- ON - Oversize knots
- PR - Pocket rot
- RE - Reconstructed
- S1 - Segment 1
- S2 - Segment 2
- S3 - Segment 3
- SA - Sapling
- SB - Shake block
- SH - Shatter
- SL - Slab
- ST - Standing tree
- SW - Sweep
- TR - Whole tree
- US - Unsafe
- WD - Coarse woody debris
- WF - Windfall
- WS – Wind shear
- **Note:** A field is available to edit or enter text about the piece (256 characters maximum).
- **Piece Volume fields:**
 - **Survey (m³):** The piece volume calculated based on the survey input values for the Piece.



7.5.3. Piece Data Edits

When entering data into the Plot Pieces screen it is common to miss or enter incorrect values. These issues can result in either a **“Fatal Error”**, where the user will not be able to continue until the values have been corrected, or a **“Warning”**, popup will be displayed but the user can continue to the next screen.

To correct an inaccurate code or numeric value, the surveyor selects the field and enters or selects the appropriate value.

7.5.3.1. Fatal Errors:

The following is a list of “Fatal Errors” that will not allow the user to continue until the values have been corrected. A popup window will appear showing the location of the missing or incorrect data.

- If **Class = U – Unavoidable** then the **Comment Code** must be populated
- If **Kind = L**, the **Length** (in Pieces section) must be greater than or equal to 3.0 m unless **Border Line = B**.
- If **Waste Type = D - Dispersed** and **Kind = W – Bucking / trimming waste**, then **Butt End** cannot be **B - Broken**
- **Measure factor required.**
- **Measure factor cannot exceed 100%.**
- **Deduction length** cannot exceed piece **Length**.
- **Top deduction** cannot exceed piece **Top dimension**.
- **Butt deduction** cannot exceed piece **Butt dimension**.
- If **Maturity = Immature**, the **Top** must meet or exceed 5 Rads

Note: Fatal errors are indicated by a ‘WARNING’ pop up window with the error identified below.



7.5.3.2. Warnings:

The following is a list of “Warnings” that will generate a popup that will be displayed but the user can continue to the next screen and generate reports

- **Top or Butt out of Range**
 - If the top is greater than the butt a warning is generated.
 - If the Top and Butt differ by more than 4 rads a warning is generated.
 - A simple taper equation (length X 1.25r) is used to estimate the top or butt diameter. If the dimension is outside of the calculation an error is generated
- **Length** should not exceed 22m
- If **Kind = S** (Stump) then Butt (R) field is not required.

← (IFOR 203) Stratum - DC2L (IFOR 204) Plot - 2 Save

Pieces [Add Piece](#)

Checked	Piece No.	Border Line	Species	Kind	Class	Gross Dimensions pieces in			Top End	Decay	Outside Measure		Comment Code	Note	Piece Volume Survey (m³)
						Length (dm)	Top (R)	Butt (R)			Far End	Add Length			
NEW	1	I	SP	L	A	60	40	P		0	0				4.7894
NEW	2	I	SP	L	A	225	50	C		0	0				12.0182
NEW	3	I	CE	S	A	5	14	C		0	0				0.0308

Warning

Warning - Piece 2: Length should not exceed 22m.
Top or Butt out of range.

Warning - Piece 3: If Kind = S (Stump) then Butt (R) field is not required.

Warning - Piece 1: Top or Butt out of range.

[OK](#)
[Continue](#)



7.5.4. Creating a Ratio Sampling plot

Prediction of Grade 1, 2 and green grade 4 and dead Grade 4 volumes in combination with random plot selection are required within the ratio sampling system. The random selection process requires the user to identify a sample population (Prediction Plots) and a minimum sample of those plots to be selected for measurement (Measure plots).

The plot selection process is based on a minimum sample (e.g., 6 plots) from the full population of plots (e.g., 18 prediction plots). The determination of prediction vs measure plots is made by random selection within the application. The selection of the measure plots is completed in two steps: 1) an initial sample of the minimum size (e.g., 6 plots) is randomly selected from the population; and 2) additional plots are selected from the remaining plots in the population. Thus the total sample size will always achieve the stated minimum size, and sometimes additional sample plots. The objective of the sample selection is to achieve a minimum number of randomly measure plots. The selection of plot numbers to be measured is determined when a strata is created. Identification of prediction vs measure plots is completed when a plot is created.

When creating a plot the user is asked to enter the plot number, an estimate of Grade 1, 2 and green 4 and dead Grade 4 volume. The user is asked to confirm the estimation before the final selection is made. The data is then stored and the plot is created. The estimate of Green and Dead volumes is then displayed on the plot header.

The screenshot displays the 'Ratio Sampling Stratum' dialog box, which is a modal window for data entry. It contains the following elements:

- Title:** Ratio Sampling Stratum
- Text:** Please enter your estimate for:
- Inputs:**
 - Green Volume
 - Dry Volume
- Buttons:** OK and Cancel

The background interface shows the 'Plots' section with a table of plot data:

Plot Number	Baseline	Strip	Shape
1	0	100	

Other visible UI elements include 'Waste Type' (P - Spot accumulation), 'Harvest Method' (B - Hoe chucking), 'Assessment/Size' (0 - 50 m²), 'Waste Level' (X - Unstratified), and a 'Plots' section with a 'Delete' button and a right arrow.



(IFOR 202) Cut Block - 1 (IFOR 203) Stratum - PB0X Save

Waste Type Area (ha)

Harvest Method # Plots Prediction Plots Measure Plots

Assessment/Size Notes

Waste Level

Plots Add Plot

Plot Number	Baseline	Strip	Shape	Measure
1				Delete ➔
2				Delete ➔
3				Delete ➔
4	0	100		Delete ➔

Value (per ha) Original \$0.00
 Billable Volume (m³/ha) 0.0000
 Cut Control Volume (m³/ha) 0.0000

EForWasteBC Version 1.0.0 Test

When the plot is created the selection of a Prediction of Measure plot is indicated on the plot header, a bold YES is highlighted in green indicates a measure plot. At this point the surveyor can move to measuring piece data.

< (IFOR 203) Stratum - PB0X (IFOR 204) Plot - 6 Save

Plot Number Measure %

Baseline Shape Strip

Size Return # Surveyor Licence

Residue Surveyor

Weather Assistant

Survey Date

Green Volume Dry Volume Measure Plot **YES**

Notes

If the Measure plot indicator indicates a bold No highlighted in Red the plot is a prediction plot and no further work is required at this location.



(IFOR 203) Stratum - PBOX (IFOR 204) Plot - 1 Save

Survey Date: Mar-29-2017

Green Volume: 1.00 Dry Volume: 1.00 **Measure Plot NO**

Notes

* Prediction plot only, No piece measurements required

The Surveyor does have the option to collect the plot data however, it is not required.

Note: The block and stratum volume and value summaries do not include data from prediction plots.

7.5.5. Standing Tree and Percent Estimate samples

The Standing tree and Percent Estimate stratum plot is created with the plot number and other header information auto filled in the same manner as the SRS/Coast plot. To complete the plot the surveyor must enter an initial volume estimate, followed by the percent by species, grade and waste class within the population. The total volume by species, grade and waste class must add up to 100% of the estimated volume. Plot piece entry is completed in the same manner as the SRS/Coast Plot. The Volume estimate field is auto filled by the application.

TELUS LTE 4:22 PM Not Charging

(IFOR 203) Stratum - STRE (IFOR 204) Plot - 1 Save

Plot Number: 1 Measure %: 100

Baseline: Shape: Strip: 0

Size: E - Estimate... Return #: 234 Surveyor Licen...: 123F

Residue Survey...: Joe Da Surveyor

Weather: Assistant:

Survey Date: Mar-29-2017

Notes

Total Estimated Volume: 229.0 Total Percentage: 100.0

Pieces Add Piece

Estimate Volume
Survey (m³)

Report

TELUS LTE 4:22 PM Not Charging

(IFOR 203) Stratum - STRE (IFOR 204) Plot - 1 Save

Notes

Total Estimated Volume: 229.0 Total Percentage: 100.0

Pieces Add Piece

Checked	Piece No.	Species	Kind	Class	Grade	Note	Percent Estimate	Estimate Volume
NEW	1	LO	T	A	1		45.9	105.111
NEW	2	LO	T	A	2		19.0	43.51
NEW	3	LO	T	A	4		6.1	13.969
NEW	4	BA	T	A	2		4.0	9.16
NEW	5	SP	T	A	1		25.0	57.25

Report



7.5.6. 100% Scale

The 100% Scale stratum plot is created with the plot number and other header information auto filled in the same manner as the Standing Tree plot. To complete the plot the surveyor enters the piece measurements for each waste piece in the same manner as the SRS/Coast plot.

TELUS LTE 4:23 PM Not Charging

(IFOR 203) Stratum - CCSX (IFOR 204) Plot - 1 Save

Plot Number Measure %

Baseline Shape Strip

Size Return # Surveyor Licen...

Residue Survey...

Weather Assistant

Survey Date

Notes

Pieces [Add Piece](#)

					Gross Dimensions for pieces inside plot					Deductions for Rot/Holes						Piece Volume	
id	No.	as			Length (dm)	Top (R)	Top End	Butt (R)	Butt End	Grade	Length (dm)	Top (R)	Butt (R)	Decay	Comment Code	Note	Survey (m³)

Report

TELUS LTE 4:23 PM Not Charging

(IFOR 203) Stratum - CCSX (IFOR 204) Plot - 1 Save

Notes

Pieces [Add Piece](#)

					Gross Dimensions for pieces inside plot					Deductions for Rot/Holes						Piece Volume	
Checked	Piece No.	Species	Kind	Class	Length (dm)	Top (R)	Top End	Butt (R)	Butt End	Grade	Length (dm)	Top (R)	Butt (R)	Decay	Comment Code	Note	Survey (m³)
NEW	1	LO	L	A	64	17	B	17	C	4							0.5811
NEW	2	LO	L	A	55	8	N	9	U	2							0.1253
NEW	3	LO	L	U	73	19	B	26	B	2					OB		1.1893
NEW	4	BA	L	A	125	29	C	35	C	1		2	3	P			3.4425
NEW	5	LO	L	A	107	11	B	17	U	2					MB		0.6892

Report



7.5.7. Value/Volume Tables

The Value/Volume table that appears at the bottom of the Block, Stratum and plot screens displays the survey results in real time. The values are adjusted as strata, plots and pieces are created.

[\(IFOR 202\) Cut Block - New Block](#)
[\(IFOR 203\) Stratum - DC0L](#)
[Save](#)

Waste Type
Area (ha)

Harvest Method
Plots

Assessment/Size
Notes

Waste Level

Plots
[Add Plot](#)

Plot Number	Baseline	Strip	Measure %	Shape	
1		0	100	C	Delete ➤
2		0	100		Delete ➤

Value (per ha)
Original

Billable Volume (m³/ha)
33.0000

Cut Control Volume (m³/ha)
84.6200

EForWasteBC Version 1.0.0 Test
[Report](#)

This information is presented to assist the surveyor by displaying the survey results. The values are based on the survey level being viewed. Values on the plot screen will report plot level results only, values at the stratum and block level report the weighted results at the appropriate level. It is important that the correct area, stumpage rate and benchmark zone are correctly entered. If not, the survey results will not be correct.

Note: The block and stratum volume and value summaries do not include data from prediction plots.

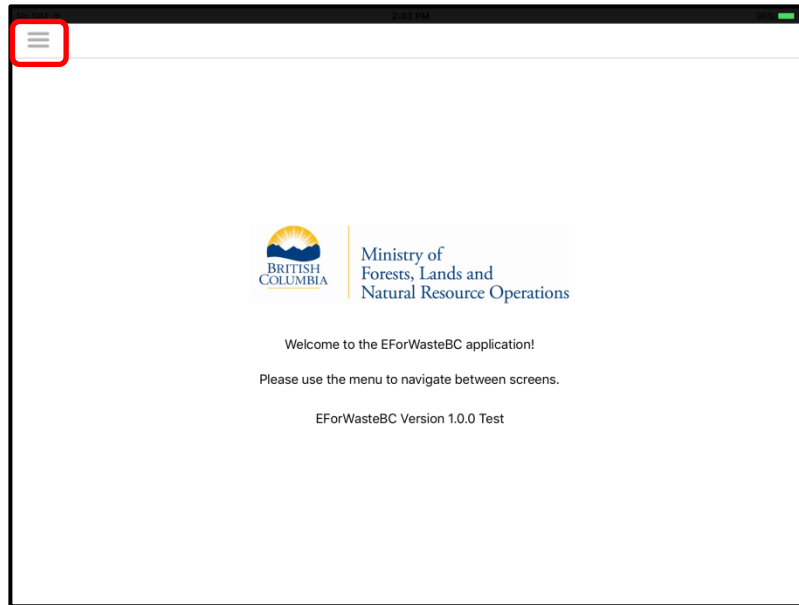


8. View Created (IFOR601)

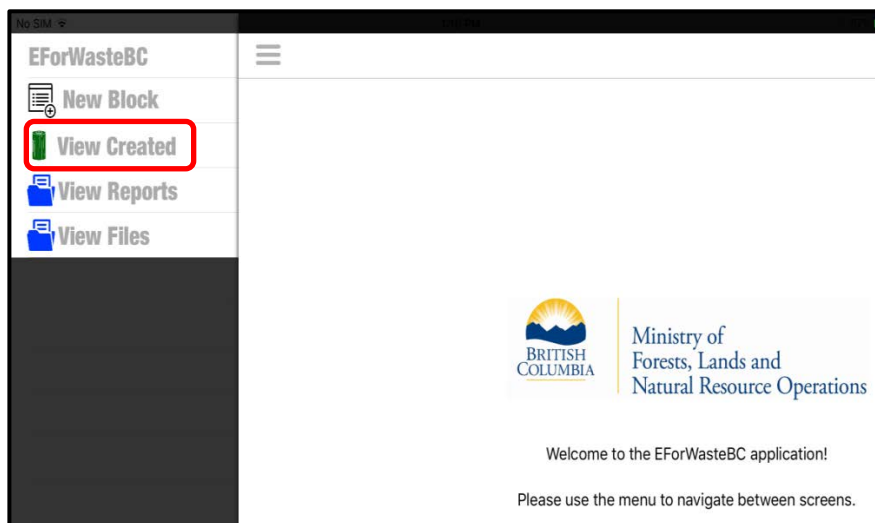
The **View Created** section of EForWasteBC is a listing of all existing blocks on the iPad. The Waste surveyor will use the View Created screen to view created blocks and access block data on the iPad.

To open the list of blocks created on your iPad:

1. Tap the EForWasteBC Menu button.

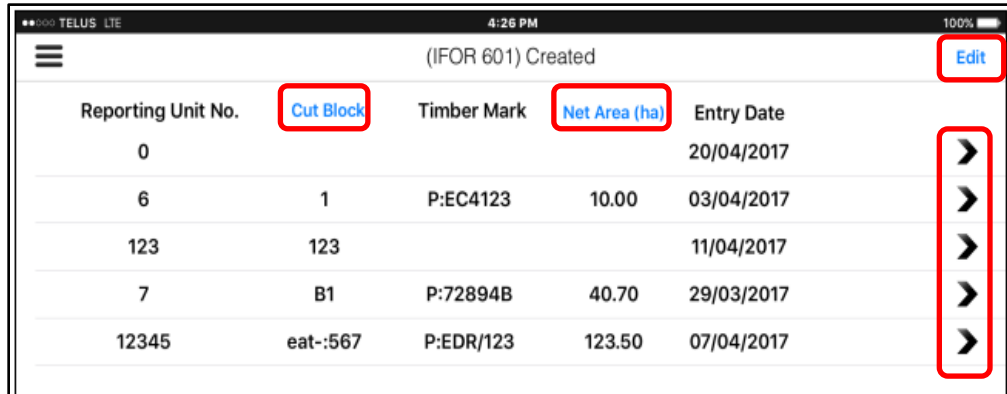


2. Tap **View Created**.



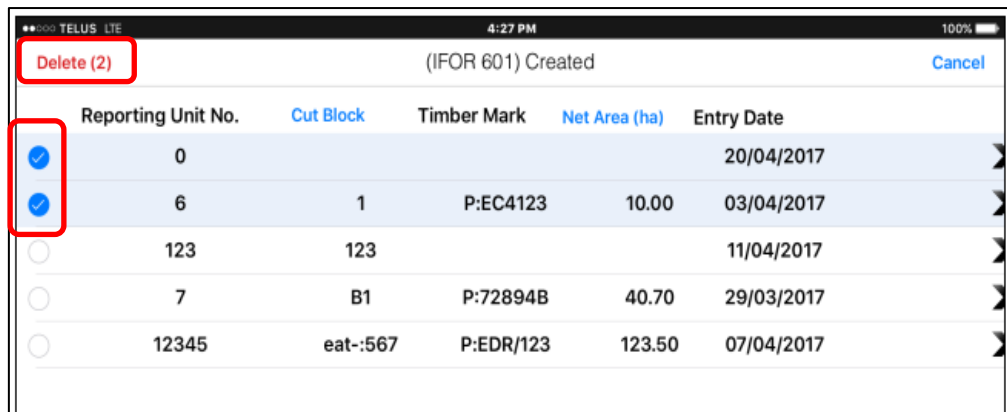
Functions available from the View Created screen are:

- Listing of the blocks on the iPad sorted by **Cut block** or **Net Area(ha)**
- Access a selected block by tapping on the ➤ symbol located on the right side of the screen



(IFOR 601) Created					Edit
Reporting Unit No.	Cut Block	Timber Mark	Net Area (ha)	Entry Date	
0				20/04/2017	➤
6	1	P:EC4123	10.00	03/04/2017	➤
123	123			11/04/2017	➤
7	B1	P:72894B	40.70	29/03/2017	➤
12345	eat-:567	P:EDR/123	123.50	07/04/2017	➤

- Deleting Blocks through the **Edit** icon in the top right of the screen
 - Delete all blocks by selecting **Delete All** or,
 - Select blocks using radio button and tap **Delete (2)**



(IFOR 601) Created					Cancel
Reporting Unit No.	Cut Block	Timber Mark	Net Area (ha)	Entry Date	
0				20/04/2017	➤
6	1	P:EC4123	10.00	03/04/2017	➤
123	123			11/04/2017	➤
7	B1	P:72894B	40.70	29/03/2017	➤
12345	eat-:567	P:EDR/123	123.50	07/04/2017	➤



9. View Reports

EForWasteBC can generate four reports, Block Type Summary, FS702, Plot Tally, and Plot Prediction Reports. The reports have been presented and formatted similarly to the reports of the same names within the online waste system. The reports are designed to give the surveyor a summary of the waste survey information at the block level. Where ratio sampling is used the block level reports will generate information based on the measure plots only. Final waste billing values will be generated at the reporting unit level through another process. All reports can be viewed within EForWasteBC, emailed directly from EForWasteBC or exported directly to iBook's as a PDF. The generate reports option is available in many screens.

Note: The reports generated from EForWasteBC are an approximation of the waste billing information that will be generated from the online waste system. Where discrepancies are found, the online waste system will be considered the correct information.

9.1. Generate Report

The user can generate a report from most of the EForWasteBC screens by tapping the **Report** button at the bottom right of the screen.

The screenshot shows a mobile application interface for EForWasteBC. At the top, there is a header bar with a hamburger menu icon on the left, the title '(IFOR 202) Cut Block - 10' in the center, and a 'Save' button on the right. Below the header is a table with the following columns: Timber Mark, Area (ha), Reduction Factor, Avoid Gr 2 or BTR, (m³/ha), and WMRF. The table contains one row with the values: GC231U, 20.0, Applied, 0.00, 35.00, and 0.0000. To the right of the table is an 'Edit Timber Mark' link. Below the table is a large form with various input fields. The form is organized into two columns. The left column contains: Reporting Unit No. (695), CP / Cutblock (31U | 10), Licence (A57713), Location (Cariboo), Logged From (2016), Logged To (2016), Logging Complete (Mar-17-2016), Survey Date (Mar-18-2016), Net Area (ha) (20.00), NP/NF Area, and Site Code. The right column contains: Return Number (1234), Surveyor Licence (1234), WASTE Surveyor (Name: Test, Professional Designation, Registration Number, Position), and Notes. At the bottom of the form is a yellow rectangular area. At the very bottom of the screen is a navigation bar with four buttons: 'Delete Cut Block', 'Generate XML', 'Generate EFW', and 'Report'. The 'Report' button is highlighted with a red border.

- From the Reports list, switch the toggle for each of the reports the user wishes to create. The toggle will turn green for each report to be generated.



Back (IFOR 501) Report Generate

Block Type Summary Report

FS 702 Report

Plot Tally Report

Plot Prediction Report

Suffix - Unique report name descriptor-max 20 characters Test

- The user has the ability to add a unique suffix to the report name to aid in identification of the report at a later date. The suffix is comprised of any unique description up to 20 characters. (I.E. 'Ver1-He', 'Ver2 CE' etc.)
- Tap **Generate** and a report confirmation will appear. Tap **OK**.

Back (IFOR 501) Report Generate

Block Type Summary Report

FS 702 Report

Plot Tally Report

Suffix - Unique report name descriptor-max 20 characters

Report Generation
 FS 702 Report - EC4123 : generated successfully.
 Block Type Summary Report : generated successfully.
 Plot Tally Report(s) : generated successfully.

OK



9.1.1. Block Type Summary Report

This report presents a summary of the block by stratum and block totals. The tables are presented to display the species and grades collected in the survey within each stratum. The report presents the information in Total cubic meters (m3) and by cubic meters per hectare (m3/ha).

Block Type Summary Report												
License	Cutting Permit	Cut Block	Timber Mark	Reporting Unit								
A16789	12	34	1234	45								
Type Stratum						Area (Ha)						
DC2L						25.00						
						Grade Volume (m3)						
						(m3)/Ha						
Species	Waste Class	Kind	Grd 1	Grd 2	Grd 4	Grd 5	Other	Grd 1	Grd 2	Grd 4	Grd 5	Other
SP	Avoid	Log, slab, Silver, chunk	0.0	0.0	0.0	2135.6	0.0	0.0	0.0	0.0	85.4	0.0
Waste Class Total			0.0	0.0	0.0	2135.6	0.0	0.0	0.0	0.0	85.4	0.0
Species Class Total			0.0	0.0	0.0	2135.6	0.0	0.0	0.0	0.0	85.4	0.0
All Species		Avoid	0.0	0.0	0.0	2135.6	0.0	0.0	0.0	0.0	85.4	0.0
		Unavd	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Type Stratum Total			0.0	0.0	0.0	2135.6	0.0	0.0	0.0	0.0	85.4	0.0
Type Stratum						Area (Ha)						
All						25.00						
						Grade Volume (m3)						
						(m3)/Ha						
Species	Waste Class	Kind	Grd 1	Grd 2	Grd 4	Grd 5	Other	Grd 1	Grd 2	Grd 4	Grd 5	Other
SP	Avoid	Log, slab, Silver, chunk	0.0	0.0	0.0	2135.6	0.0	0.0	0.0	0.0	85.4	0.0
Waste Class Total			0.0	0.0	0.0	2135.6	0.0	0.0	0.0	0.0	85.4	0.0
Species Class Total			0.0	0.0	0.0	2135.6	0.0	0.0	0.0	0.0	85.4	0.0
All Species		Avoid	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
		Unavd	0.0	0.0	0.0	2135.6	0.0	0.0	0.0	0.0	85.4	0.0
BlockTotal			0.0	0.0	0.0	2135.6	0.0	0.0	0.0	0.0	85.4	0.0
Report Date: April 06, 2017 Auditor: Test												



9.1.2. FS702 Report:

This report shows the full volume and value summary by species, grade for the block. The report is a reproduction of the FS702 billing that would be produced for the block. The FS702 is produced on either a Coast or Interior template and also summarizes some other key attributes from the survey. Notes recorded on the Block Header or Stratum header are reproduced onto the report.

• TELUS LTE 9:26 AM 89%

< (IFOR 301) Reports RU7_BlockB1_72894B_FS702

Interior Block Billing and Volume summary (FS702)

Licence: A72894CP-B1 Mark: 72894B

Species	Product	Grade	Avoid	Pieces	Volume (m3)	Volha (m3/ha)	Rate (\$/m3)	Total (\$)
BA		1	Y	3	29.21	0.718	2.11	61.63
BA		1	N	1	6.41	0.157	0.00	0.00
BA		2	Y	6	167.57	4.117	2.11	353.57
BA		4	Y	5	141.32	3.472	0.25	35.33
CE		2	Y	1	91.02	2.236	2.11	192.05
HE		1	Y	1	4.96	0.122	2.11	10.51
HE		2	Y	3	64.39	1.582	2.11	135.86
HE		2	N	2	40.71	1.000	0.00	0.00
HE		4	Y	1	17.39	0.427	0.25	4.35
LO		1	Y	1	105.11	2.583	2.11	221.78
LO		1	N	2	6.23	0.153	0.00	0.00
LO		2	Y	9	330.60	8.123	2.11	897.57
LO		2	N	2	62.26	1.530	0.00	0.00
LO		4	Y	4	51.52	1.266	0.25	12.88
LO		5	Y	4	107.11	2.632	0.25	26.78
SP		1	Y	2	221.27	5.437	2.11	466.88
SP		2	Y	2	10.61	0.261	2.11	22.39
SP		2	N	1	4.33	0.106	0.00	0.00
SP		5	Y	1	57.00	1.400	0.25	14.25
Total (Cut Control)				51	1519.04	37.32		N/A
Total Avoid				7	360.57	8.86		\$760.80
Total Avoid				21	664.19	16.32		\$1401.44
Total Avoid				10	210.23	5.16		\$52.56
Total Avoid				5	164.11	4.03		\$41.03
Total Avoidable				43	1398.10	34.38		\$2255.83
Total Unavoidable				8	119.94	2.95		N/A

Differences in summary values between app and report due to rounding

Notes
Block - Production test
SB4X - Stratum Prod test

Survey Date: April 25, 2017
Surveyor: Joe da Surveyor



9.1.3. Plot Tally Report:

The Plot Tally report presents all of the information collected within a waste plot. The report also summarizes the plot volume and reports any notes: collected by the surveyor.

Waste Plot Tally Card																						
License		CP	Block	Date	Get	Res	Bund	Box	Plot	Measure	Stratum											
A72894		B	B1	03/29/2017	341D	234	0	1	0		R	B	0	X								
Gross Dimensions for Pieces Inside Plot										Deductions for Rot/Holes				Outside Measurements								
Status	Piece Number	Stratum S	Species	Kind	Class	Length	Top Diameter	End Code	Butt Diameter	End Code	Grade	Length	Top	Butt	Density Code	Per End	Act Length	Comment Code	Notes	Piece Volume		
O	1	I	HE	W	A	19	14	C	15	B	2					0	0			0.1267		
O	2	I	BA	W	A	3	13	B	13	C	4					0	0			0.0159		
O	3	I	HE	S	U	1	27	C			2					0	0	OB		0.0229		
O	4	I	BA	W	A	9	10	B	11	C	2					0	0			0.0312		
O	5	B	LO	L	A	6	10	B	10	N	5					0	0	MB		0.0189		
Plot Volume: 0.215 Notes Plot -																						
Survey Date: April 25, 2017 Surveyor: Joe da Surveyor																						

9.1.4. Plot Prediction Report:

The Plot Prediction report summarizes the information collected on a Ratio Sampling Prediction Plot. The information will be exported from EForWasteBC and used later in the full compilation of the block and reporting unit results. Generation of the plot prediction report is only required on Ratio sampling projects.

Reporting	Unit	License	CP	Block	Stratum (IE, SG2X)	Plot No.	Time stamp	GPS coordinate	Random Selection indicator	Predicted Green Volume	Predicted Dry Volume	All prediction attempts
Surveyor												
Test		45 A16789		12	34 DC2L	1	2017-04-05 15:54	N/A	NO	2		4 New Plot Added
Test		45 A16789		12	34 DC2L	2	2017-04-05 15:54	N/A	YES	2		4 New Plot Added

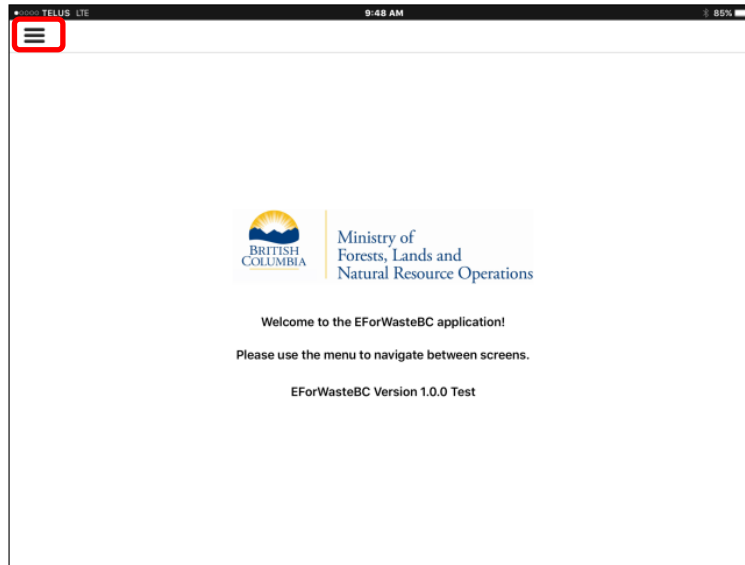


9.2. View Reports

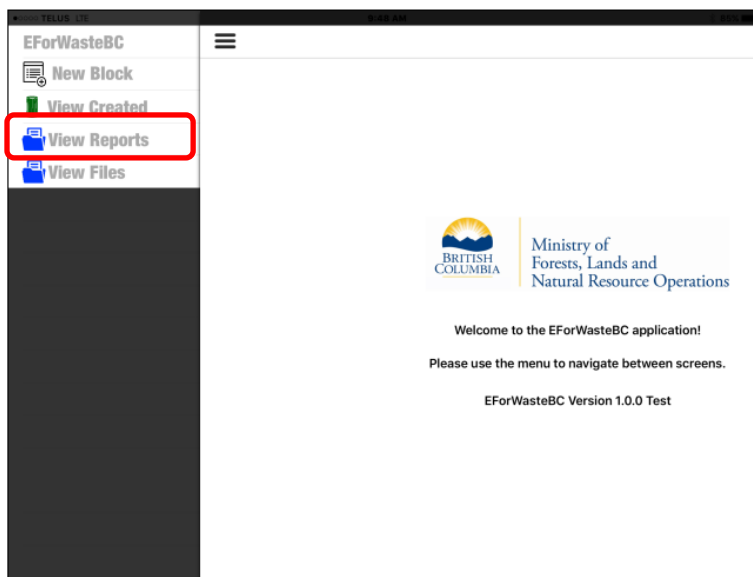
The user has the option to view the reports in several ways, within the EForWasteBC application, on iBook's as a PDF, email or via export to a PC where they can be viewed in rtf format or converted to a pdf document.

9.2.1. View reports in EForWasteBC

1. Tap the **EForWasteBC Menu** button.



2. Tap **View Reports**.



3. All available reports will be shown in the Reports list (IFOR 301).

(IFOR 301) Reports

Report Name

RU6_Block1_16341_FS702.rtf

RU6_Block1_CCSX_1_PlotTallyReport.rtf

RU6_Block1_CheckSummary.rtf

4. Tap a report to view the report in EForWasteBC.

Note: The report can be viewed within EForWasteBC however; the format and size may be difficult to read.

9.2.2. View reports in iBook

1. Open the report in EForWasteBC
2. Tap on the icon in the top right

TELUS LTE

9:26 AM

RU7_BlockB1_72894B_FS702

(IFOR 301) Reports

Interior Block Billing and Volume summary (FS702)

Licence: A72894CP-BBlock_B1 Mark-72894B

Species	Product	Grade	Avail	Pieces	Volume (m3)	Volume (m3/ha)	Rate (\$/m3)	Total (\$)
BA	1	Y	3	29.21	0.718	2.11		61.63
BA	1	N	1	6.41	0.157	0.00		0.00
BA	2	Y	6	167.57	4.117	2.11		353.57
BA	4	Y	5	141.32	3.472	0.25		35.33
CE	2	Y	1	91.02	2.236	2.11		192.09
HE	1	Y	1	4.98	0.122	2.11		10.51
HE	2	Y	3	64.39	1.582	2.11		135.86
HE	2	N	2	40.71	1.000	0.00		0.00
HE	4	Y	1	17.38	0.427	0.25		4.30
LO	1	Y	1	105.11	2.593	2.11		221.78
LO	1	N	2	6.23	0.153	0.00		0.00
LO	2	Y	9	330.60	8.123	2.11		897.57
LO	2	N	2	62.26	1.530	0.00		0.00
LO	4	Y	4	51.52	1.268	0.25		12.88
LO	5	Y	4	107.11	2.632	0.25		26.78
SP	1	Y	2	221.27	5.437	2.11		466.88
SP	2	Y	2	10.61	0.261	2.11		22.39
SP	2	N	1	4.33	0.106	0.00		0.00
SP	5	Y	1	57.00	1.403	0.25		14.25
Total (Cut Control)			51	1519.04	37.32			N/A
Total Avoid	1		7	369.57	8.86			\$760.80
Total Avoid	2		21	664.19	16.32			\$1401.44
Total Avoid	4		16	216.23	5.16			\$52.96
Total Avoid	5		5	164.11	4.03			\$41.63
Total Avoidable	All		43	1399.10	34.38			\$2255.83
Total Unavoidable	All		8	119.94	2.95			N/A

Differences in summary values between app and report due to rounding

Notes

Block - Production test

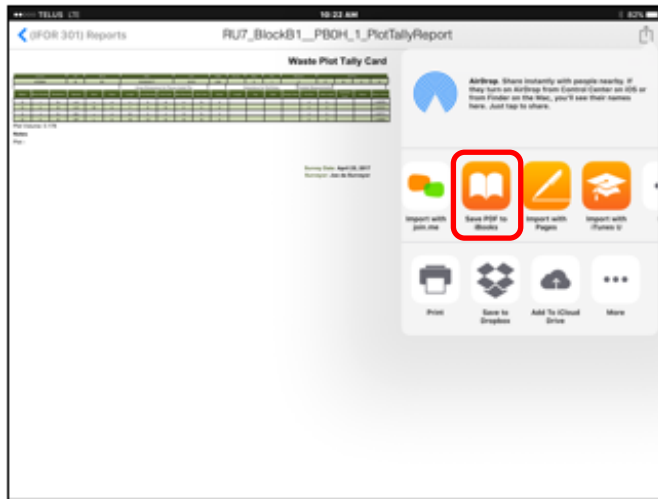
SIB4X - Stratum Prod test

Survey Date: April 25, 2017

Surveyor: Joe da Surveyor



3. Select 'Save PDF to iBook's'



- a. A message will appear 'Saving to iBook'
- b. IBook will open showing the report.
 - i. You can now view the report in full size with the ability to zoom in as needed

9.2.3. Transfer Reports to PC

Once reports have been created, they can be transferred to the surveyor's personal computer to edit, save, store, and share the reports. The reports can be transferred by emailing or by direct connection to the PC through iTunes.

The report files are saved as .rtf (Rich Text Format files) and can be opened using MS Word. MS Word allows all fields/text in the report to be edited and saved.

9.2.3.1. Email

To transfer a report(s) from the iPad to the computer through email:

- a. In the View Reports menu select a report



b. Select the share upload icon and tap mail.

Block Billing and Volume summary

Species	Product	Grade	Avoid	Pairs	Volume (m3)	Invoice Price	Rate (\$/m3)	Total (\$)
BA		J	Y	16	236.452	5.811	3.15	744.52
BA		U	Y	1	0.000	0.000	0.08	0.00
BA		X	Y	3	86.900	2.135	0.08	6.95
BA		Y	Y	1	2.200	0.054	0.25	0.55
CE		H	Y	1	238.504	5.880	3.15	751.29
CE		J	Y	3	39.725	0.876	3.15	125.13
CE		U	Y	1	49.918	1.220	3.15	157.24
CE		X	Y	6	393.950	8.688	0.08	28.22
CE		Y	Y	2	100.800	2.477	0.25	25.20
CY		H	Y	1	177.122	4.352	3.15	557.93
CY		J	Y	2	0.000	0.000	3.15	0.00
CY		X	Y	1	0.000	0.000	0.08	0.00
CY		Y	Y	1	0.000	0.000	0.25	0.00
HE		J	Y	27	388.672	9.550	3.15	1224.32
HE		U	Y	4	1.000	0.025	0.08	0.08
HE		X	Y	10	210.053	5.162	0.08	16.81
HE		Y	Y	6	89.807	2.207	0.25	22.45
SP		U	Y	1	47.128	1.198	3.15	148.46
BA		J	Y	2	15.928	0.391	0.00	0.00
BA		U	Y	1	8.458	0.208	0.00	0.00
CE		J	Y	5	142.758	3.508	0.00	0.00
CY		U	Y	1	0.000	0.000	0.00	0.00
CY		Y	Y	1	0.000	0.000	0.00	0.00
HE		J	Y	14	293.357	7.208	0.00	0.00
HE		U	Y	3	9.887	0.243	0.00	0.00
HE		X	Y	1	39.089	0.862	0.00	0.00
Total (Cut Control)				115	2527.43	62.18		N/A
Total Harmful Avoid		U		5	1.00	0.03		\$0.08
Total All Species Avoid		X		20	650.59	15.96		\$52.09
Total All Species Avoid		Y		10	192.81	4.74		\$48.20
Total Avoidable		All		87	2021.95	49.68		\$389.65
Total Unavoidable		All		28	505.48	12.42		N/A

Differences in summary values between app and report due to rounding

Notes
Block - Jan 31, 17 UAT

i. An email message will be generated with the report included as an

attachment.

ii. Add your email address and any other recipients you wish to send the report to.

iii. Add a subject name

iv. Tap send and the report will be sent .rtf format

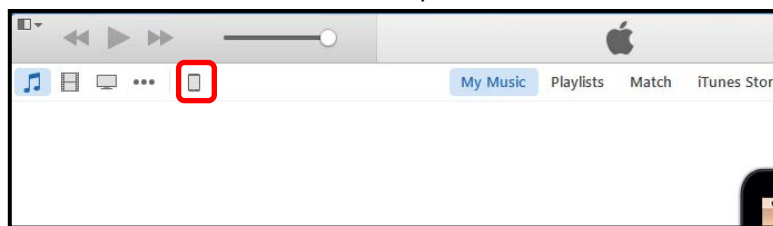
v. Open the report from Microsoft Word

1. The report can now be viewed, edited and saved as a word document.

9.2.3.2. iTunes

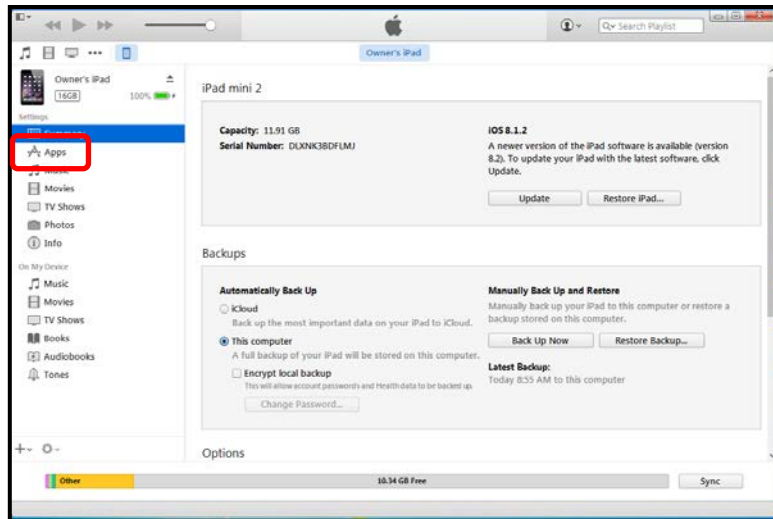
To transfer a report(s) from the iPad to the computer through direct transfer:

- Plug the iPad into computer using the iPad supplied USB cable.
- On your desktop computer, open iTunes (this may happen automatically)
- Click the iPad button on the top of the iTunes bar

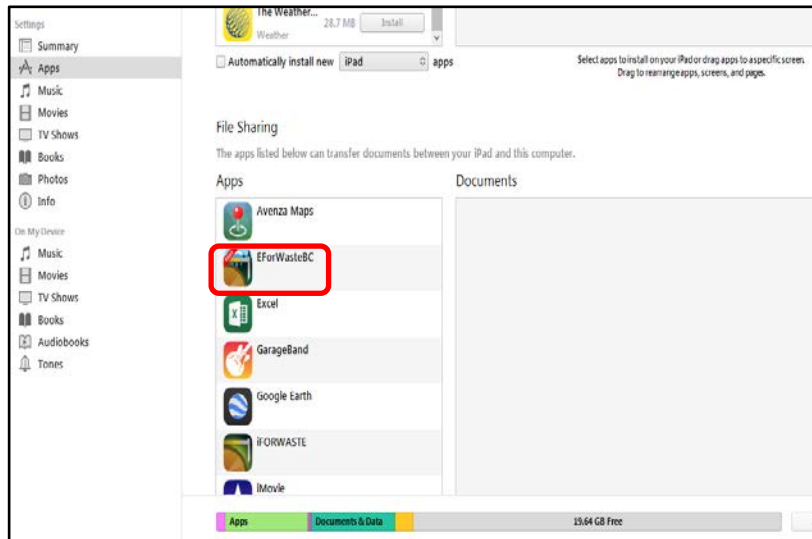


d. Under **Settings**, select **Apps**

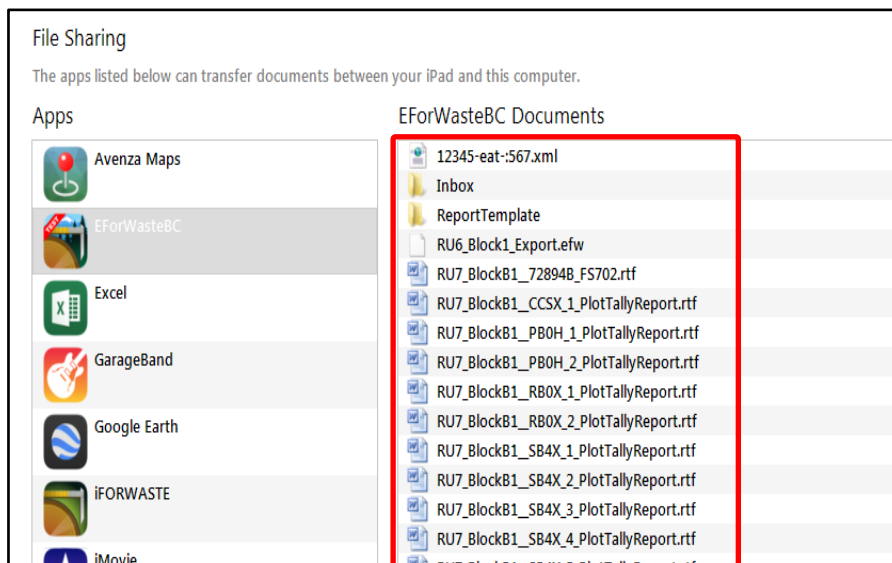




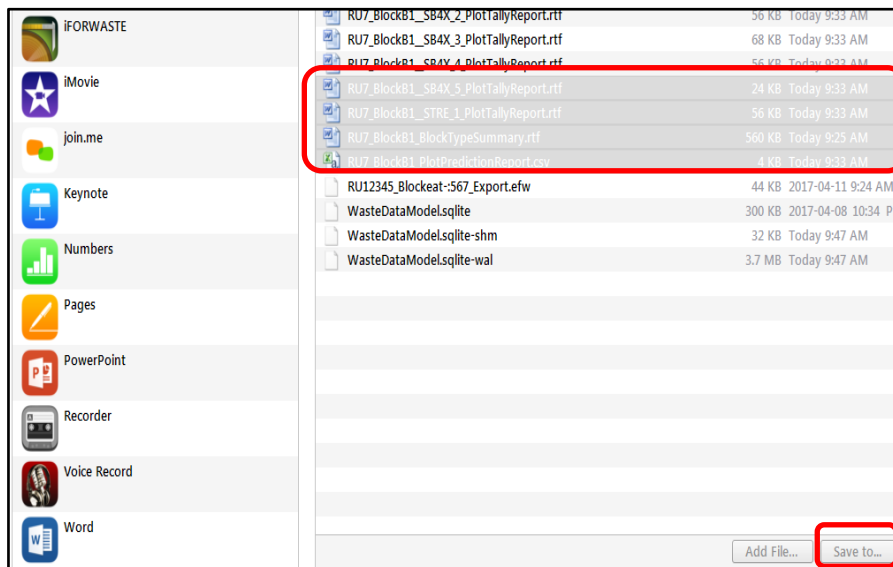
- e. Scroll down to the bottom of the Apps screen to File Sharing section and click the **EForWasteBC** icon.



- f. Once EForWasteBC icon is clicked, the **EForWasteBC Documents** section will be displayed.

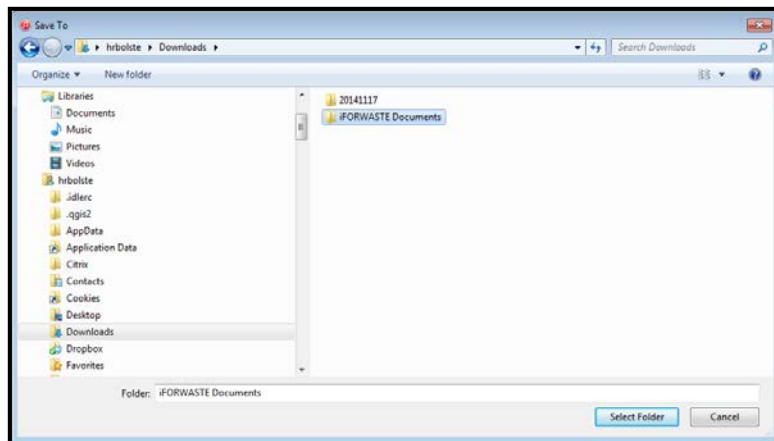


- g. Select the report(s) to be transferred to the user's computer and click the Save To button.



*Note: Users can select multiple reports by holding **Shift** and clicking multiple files in the EForWasteBC **Documents** section.*

- h. Navigate to the appropriate folder on the computer to save reports to and click Select Folder.



- i. The Reports will be downloaded to the user's computer to the folder selected above.

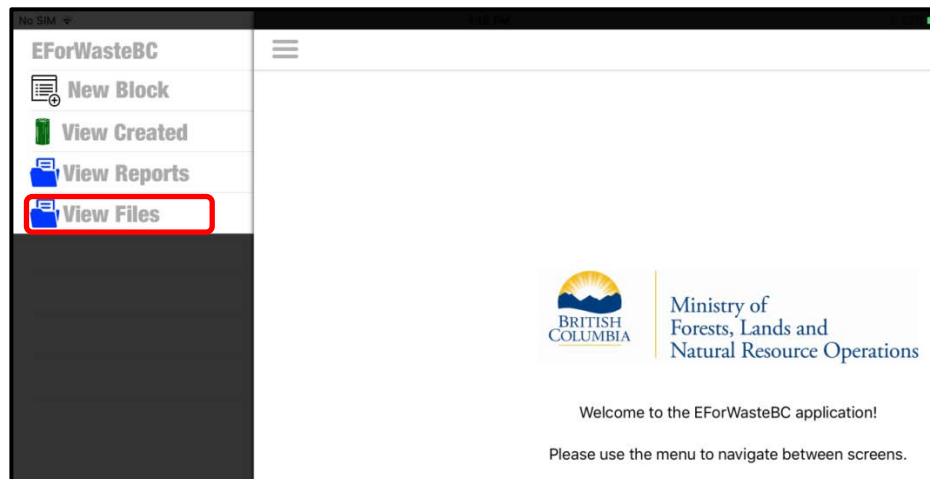


10. View Files

The primary function of the View Files screen is to store, delete and transfer files that have been exported from a cut block or imported to the iPad. From the View Files screen the user can manage imported and exported files or email files to other people or places.

10.1. Storing files

When a block is exported either to an EFW or XML file a copy of the file is stored on the iPad. All stored files are listed on the View Files screen. A file can then be sent to another user via email.



10.2. Emailing files (IFOR701)

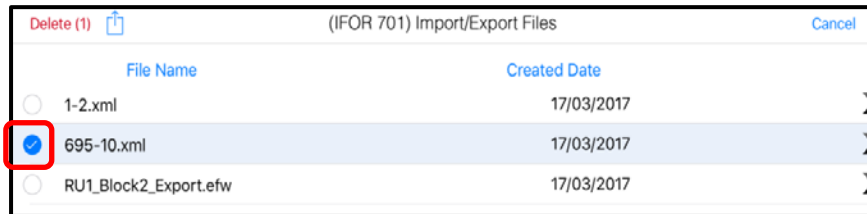
Both EFW and XML files can be emailed directly from EForWasteBC via the IFOR701 screen. To email a file

- a. Select 'Edit' from the IFOR701 screen

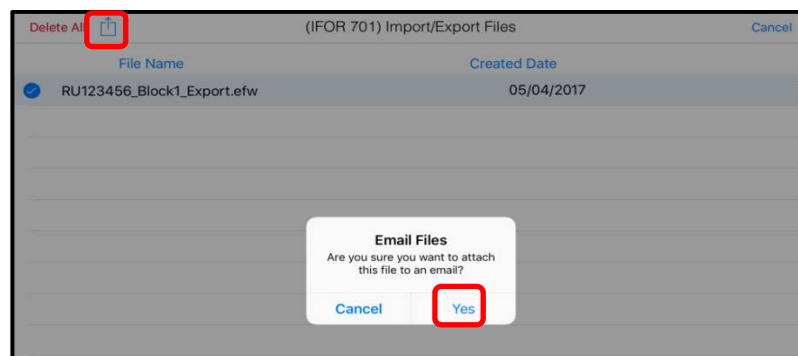
(IFOR 701) Import/Export Files			Edit
File Name	Created Date		
1-2.xml	17/03/2017		➤
RU1_Block2_Export.efw	17/03/2017		➤



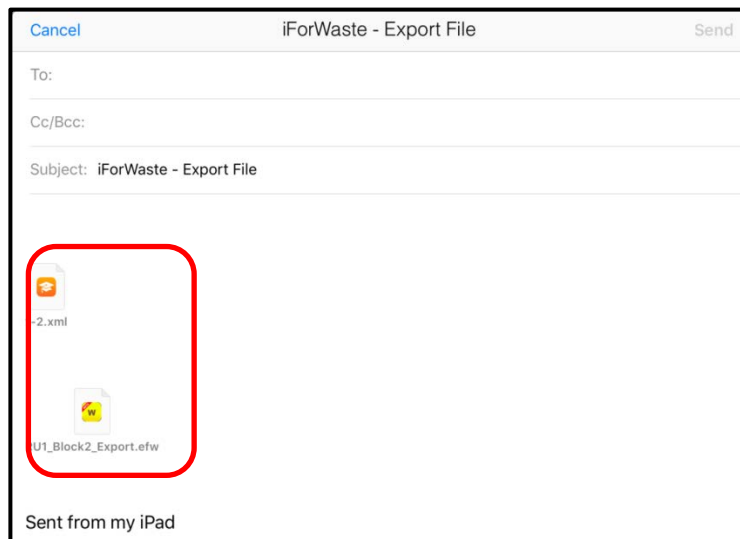
- b. Select the file(s) to be emailed by selecting the radio button to the left of the file.



- c. Select the upload file icon and then select yes when prompted to attach the file to an email.



- d. An email will be automatically generated with the file(s) attached.



- e. Address the email and tap 'Send'.
2. The files will be sent via email to all addresses selected.

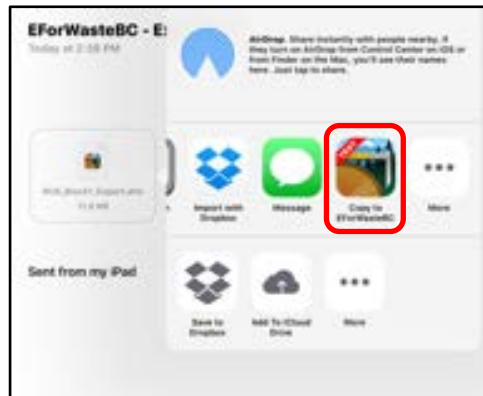


10.3.Importing files

Blocks can be imported into EForWasteBC in two ways, via email or iTunes. Blocks imported through email are opened directly from an email. Blocks imported via iTunes must be manually transferred and are stored on the View Files page then 'imported' into the View Created page.

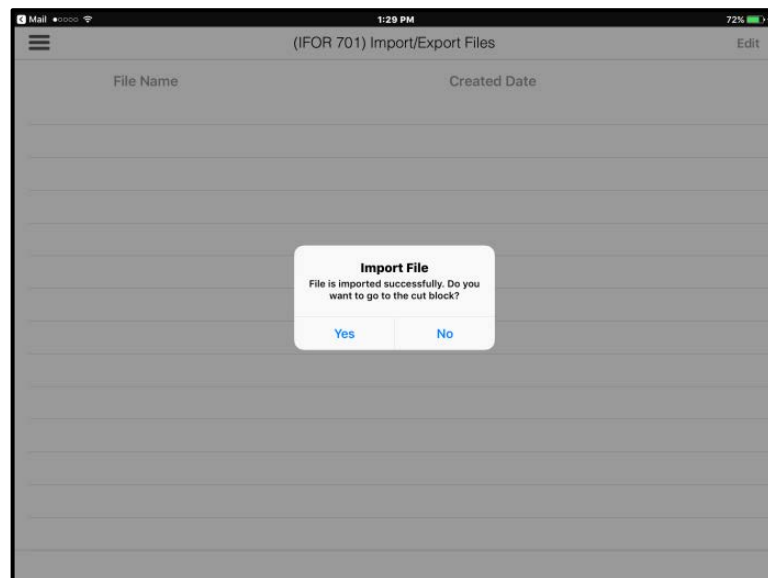
10.3.1. Importing by email

- a. Cut Block files (.EFW) can be imported directly into EForWasteBC from emails.
 - i. Open the email containing an .EFW file on the iPad.
 - ii. Tap the file icon then select EForWasteBC from the sharing dropdown.

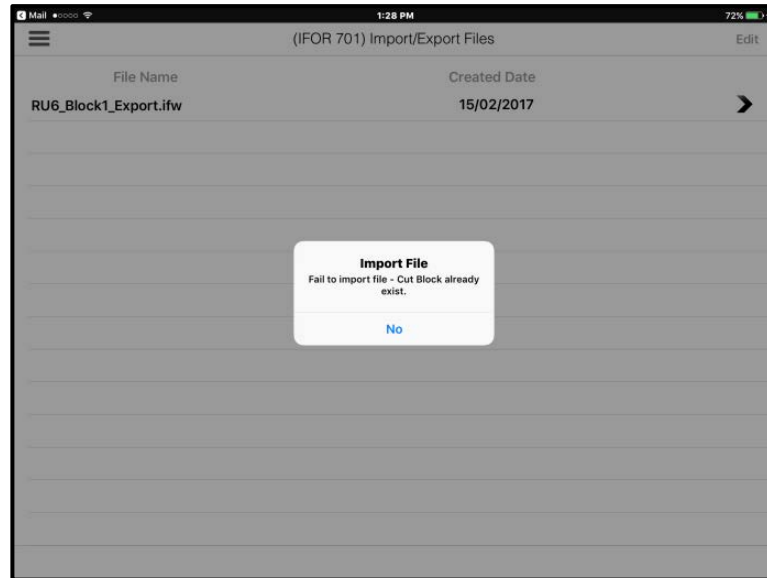


The file will be imported directly into EForWasteBC with two possible outcomes

1. A message advising the import was successful will be displayed

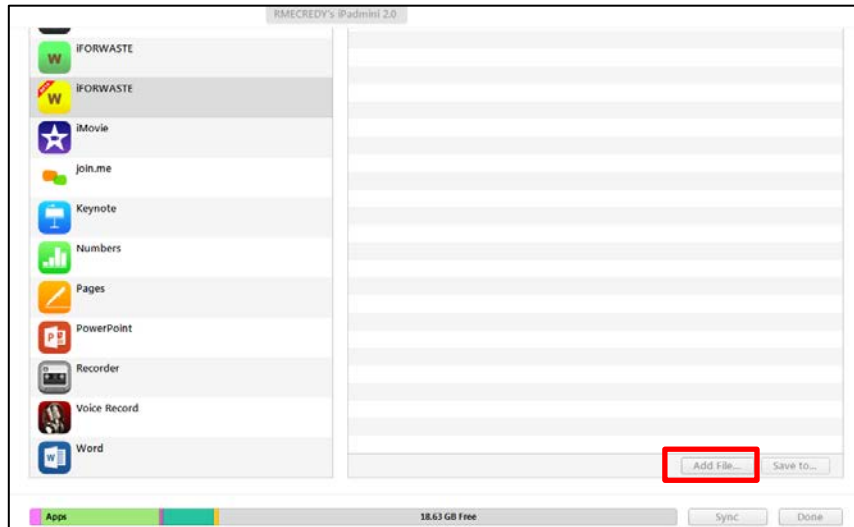


2. A message advising the import failed because the cut block already exists is displayed. If you still wish to import the file you will need to delete the original version and reattempt the import process.

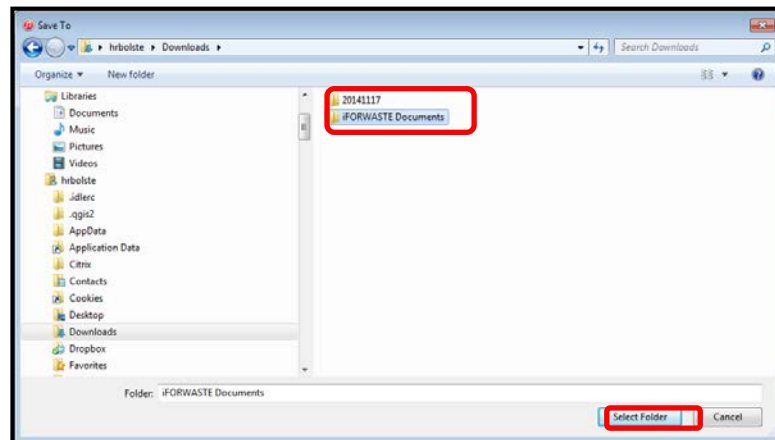


10.3.2. Importing through iTunes

- a. Connect the iPad to a computer and access the application files as instructed in section 9.2.3.2.
- b. In the **EForWasteBC** Documents section select the 'Add File Button'



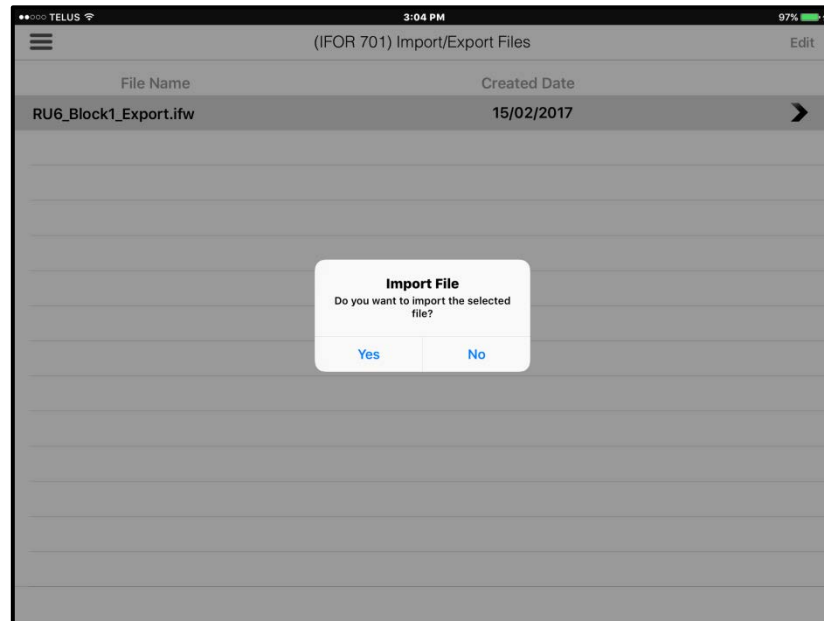
- c. Navigate to the appropriate folder on the computer containing the file to be imported and select the file.



- d. The file will be transferred to the user's iPad and appear in the IFOR701 Screen.



- e. On the iPad, select the file. A window will appear asking if you want to import the selected file.

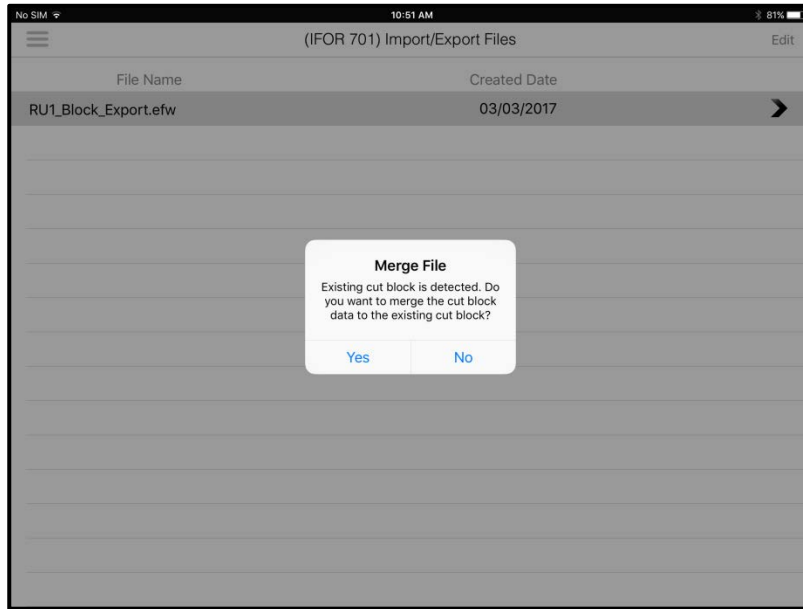


Select 'Yes' and the block will be downloaded into the 'View Downloaded' screen.



11. Merging Files

EForWasteBC allows the user to merge (combine) files created on different iPads. The merge feature will be triggered when the user imports cut block data from an email or an exported file in the “View Files” screen (IFOR 701). The application detects an existing cut block when the same Cut Block ID, Cutting Permit ID (CP), Reporting Unit number and License exists. A pop up window will appear asking the user if the imported data should be merged with another block.



The merge feature will only succeed if the following conditions exist.

- The Cut Block screen (IFOR 202), Stratum Screen (IFOR 203) and Timber Mark screen (IFOR 401) in both Cut Blocks is identical.
 - If any field on these screens contains different data the merge will fail.
 - The application will show a list of mismatched field names.
 - If originating file contains data in a field and the same field in the imported file is blank the merge will be accepted.
 - The data contained in the field will be maintained in the new dataset.
- A stratum cannot contain duplicate plot numbers.
 - When a duplicate plot number exists the merge will fail and the application will show a list of duplicate plot numbers.



11.1. The Merging Process

The merge process allows two files, (original and import files) to be merged into a single file on the originating iPad. The merged file will contain the block header information (cut block screen- IFor202) and any unique strata and plot data contained within each file to be merged. Within a given stratum all unique plot numbers will be merged as well as all plot data.

- Example:
 - iPad A
 - Reporting unit 123456
 - License A98765
 - Cutting Permit A1
 - Cut Block 1
 - Stratum: SB2X
 - plots: 1, 3, 5, 10, 12
 - Stratum PBOX
 - Plots 1,2,3,4
 - iPad B
 - Reporting Unit 123456
 - License A98765
 - Cutting Permit A1
 - Cut block 1
 - Stratum: SB2X
 - Plots: 2, 4, 6, 7, 8, 9, 11
 - Stratum: CCSX
 - Plot 1
 - Will become
 - iPad A
 - Reporting unit 123456
 - License A98765
 - Cut block 1
 - Stratum: SB2X
 - plots: 1,2,3,4,5,6,7,8,9,10,11,12
 - Stratum PBOX
 - Plots 1,2,3,4
 - Stratum: CCSX
 - Plot 1



Caution:

- Cut block Screen (Ifor202) fields: Return number, Surveyor License, Name, Designation, Number and Position in the imported file must be identical to the origination file or the imported file must contain blanks in these fields before a merge will succeed.
- Plot header information created within each iPad will be retained after a merge.
- Notes contained in each file will be appended to the originating file.
- It is recommended that the file containing the majority of information be used as the originating file.



Appendix A: iPad Basics

This section outlines general iPad practices for users who are new and unfamiliar with the general functions of an iPad.

1. Turning the iPad On and Off

To turn on the iPad:

1. Find the Sleep/Wake button on the top right of your device.
2. Press and hold down the button for a few seconds. The device will turn on.



3. If a passcode has been set on the iPad, enter the passcode.

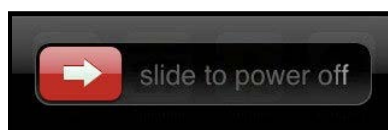


To turn off the iPad:

1. Find the Sleep/Wake button on the top right of your device.
2. Press and hold down the button for a few seconds until a small slide bar appears across the top of the display.

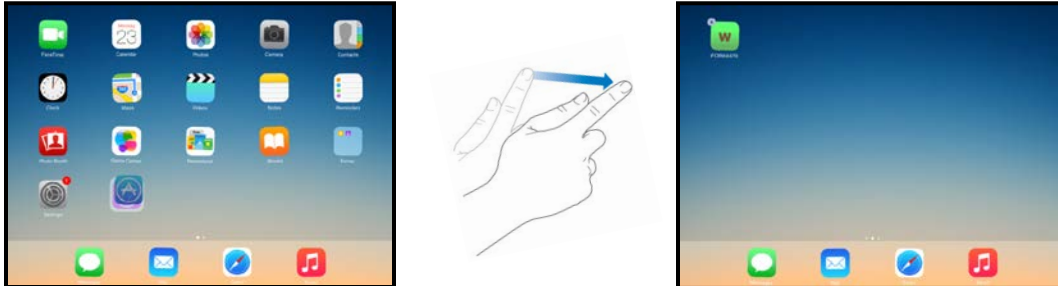


3. Drag the slider to power off the iPad.



2. Navigating between iPad Home Screens

The user can navigate between home screens by swiping to the side to move from screen to screen. This can be required for navigating to the EForWasteBC app.



3. Arranging Apps on the Home Screen

An iPad can display up to 11 home screens, allowing for plenty of room to organize apps that are loaded onto the iPad.

To move apps on a Home screen:

1. Tap and hold any app on that page. The app icons all jiggle.
2. Press, hold, and drag an app icon to another location on the screen to move it.
 - a. To move an app from one screen to another, while apps are jiggling, you can tap and drag an app to the left or right to move it to the next screen.
3. Tap the **Home** button to complete the app move (stops icons from jiggling).

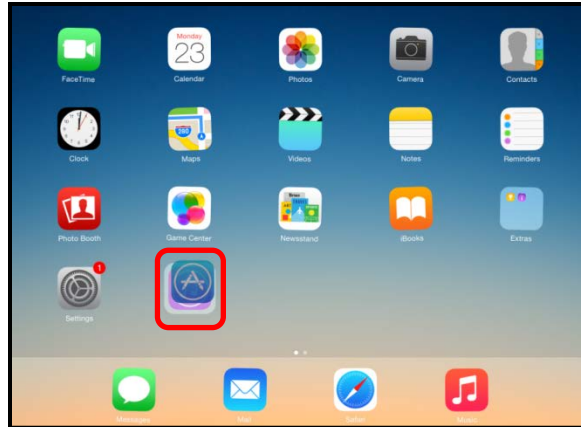
3.1. Organizing Apps into Folders

iPad lets you organize apps into folders to sort common uses and functions.

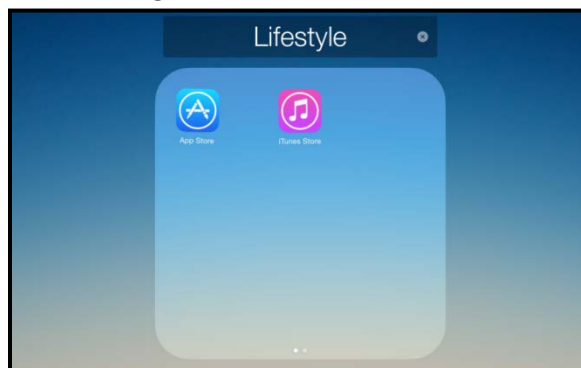
To create an apps folder:

1. Tap and hold any app on that page. The app icons all jiggle.
2. Drag an app on top of another app.





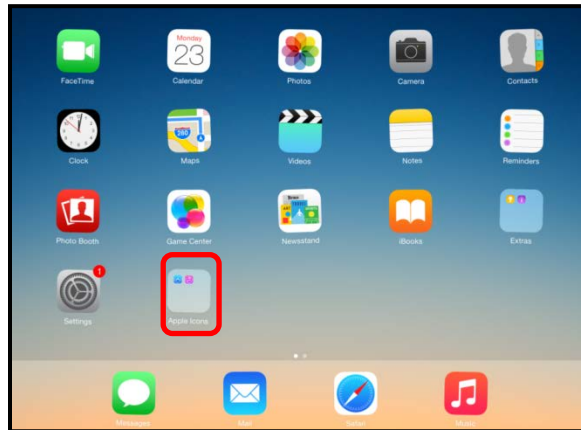
3. The two apps get added to a single folder.



4. Change the name for the folder by tapping in the name field and typing the folder name to be used.



5. Tap anywhere outside of the bar to save the name and folder.



6. Tap the **Home** button to complete the app move (stops icons from jiggling).

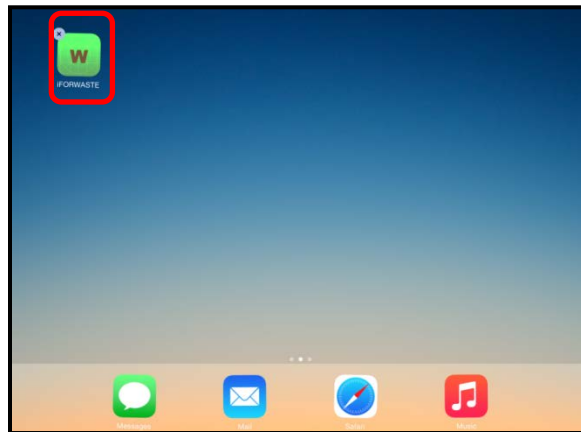
3.2. Deleting Apps From iPad

When an app is no longer needed it can be deleted to save space on the iPad.

Note: Apps that come built into the iPad cannot be deleted.

To delete an app from the iPad:

1. Navigate to the app to be deleted. Tap and hold the app until all apps begin to jiggle.
2. Tap the **Delete** button (small x in the top left of the icon) for the app you want to delete.



3. In the confirmation dialog, tap **Delete** to proceed with the deletion.
4. A dialog asking to rate an app before deleting it appears. Either tap the **Rate** button to rate the app or **No Thanks** to opt out of the survey.



4. Unique Ipad settings for EForWasteBC

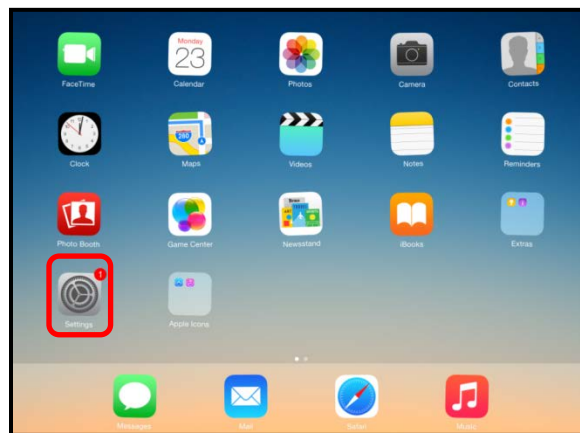
4.1. Passcode

4.1.1. The "Require Passcode" option allows the user to set the amount of time that passes by before the iPad asks for a passcode.

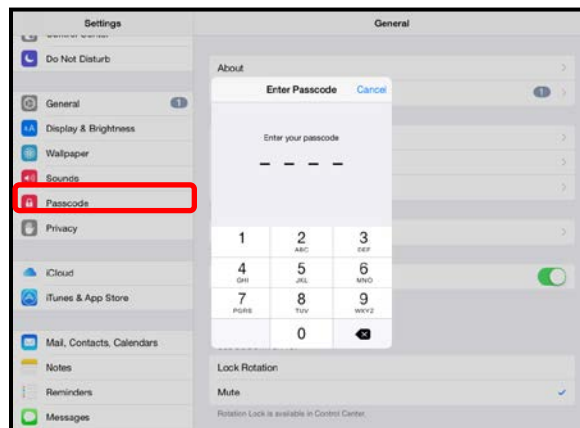
- "Immediately" will request that you enter a passcode upon turning on the device or waking it up from sleep.
- Otherwise, you can pick a time between 1 minute to 4 hours for the lock time. iPads typically use a default setting of 15 minutes.

The user can use the following steps to set a password for the user's iPad.

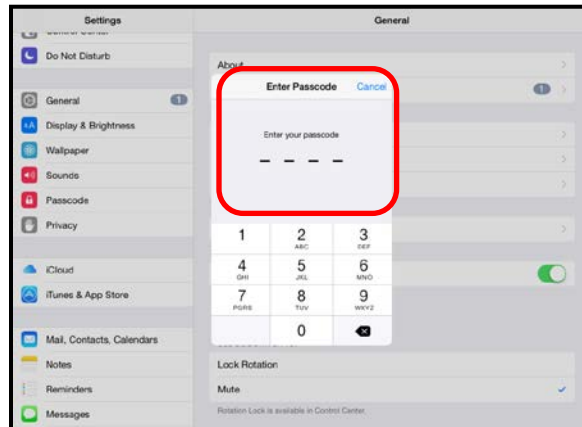
1. From the iPad Home screen, tap **Settings**.



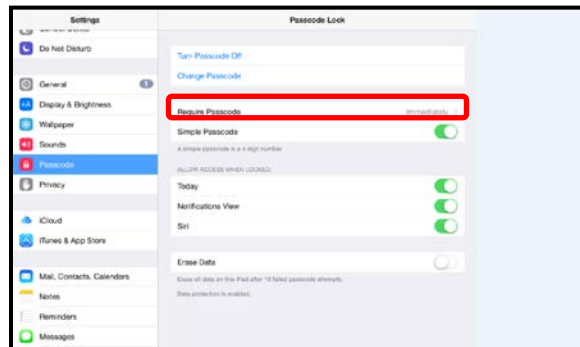
2. Tap **Passcode**.



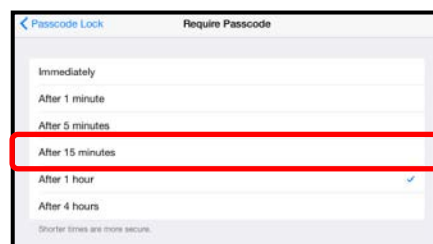
3. The Passcode Lock screen appears. Enter the **iPad Passcode**.



4. Tap **Require Passcode**.



5. Select the desired length (recommended option is 1 hour).

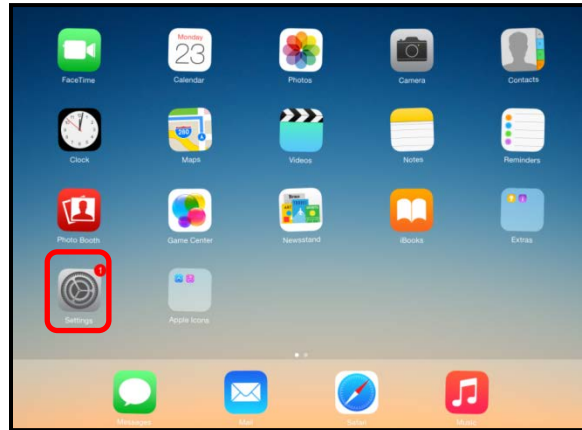


4.2 Font Size

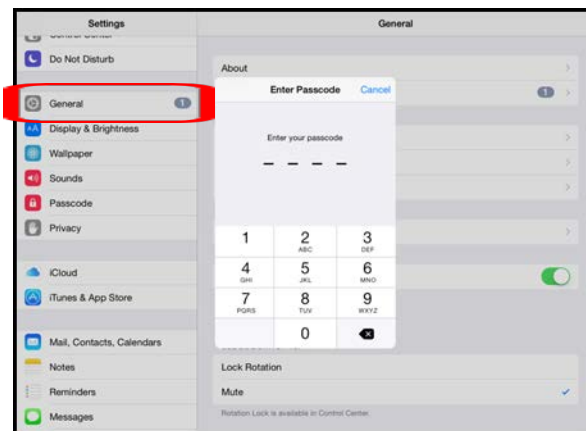
4.2.1 The default iPad font size needs to be reduced to allow some of the screens to display correctly.

4.2.1.1 The user can use the following steps to set a password for the user's iPad.

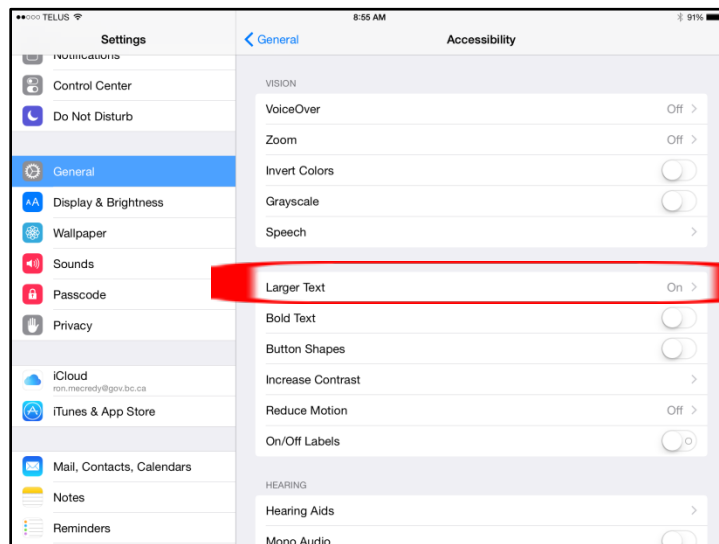
1. From the iPad Home screen, tap Settings.



2. Tap **General**



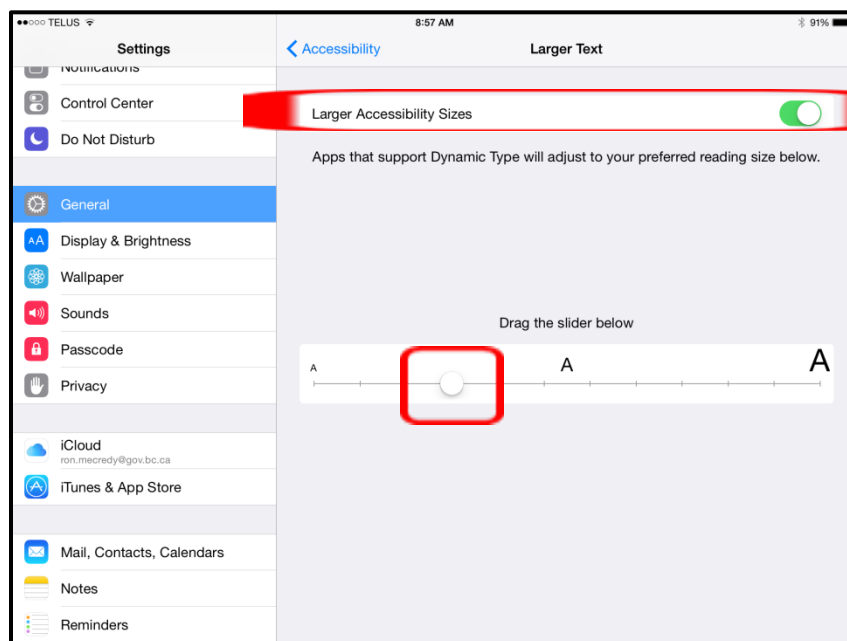
3. Tap Accessibility



4. Tap 'Larger Text'

4.2 Set 'Larger Accessibility Sizes' to On

4.3 Set Scroll bar to 3rd setting point



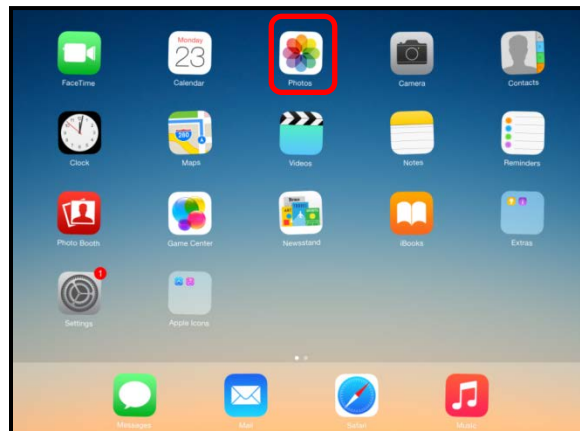
5. Taking Screenshots

To take a screenshot on your iPad:

1. Locate the Home and Sleep/Wake buttons. The Home button is located directly below your iPad's display. The Sleep/Wake button on the top right of your device.



2. Simultaneously press the Home button and Sleep/Wake button when viewing the screen you want to capture. The iPad will flash if done correctly.
3. Once screen is captured, photos will automatically be saved in the **Photos** app. The screen shot can then be transferred to a desktop computer or emailed if the iPad has that capability.



4. Navigate to Photos app to view captured screenshot.



6. Closing an Application

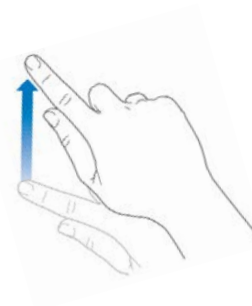
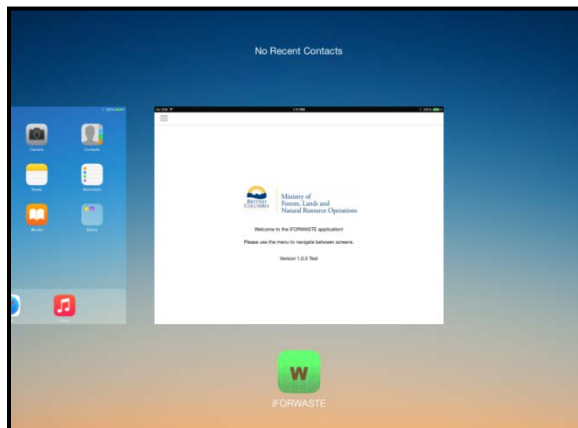
Tapping the home button will minimize the current application the user is using and open the Home Screen. This will not close the application properly and it will still be open in the background.

To close an application:

1. Double click the home button to open the multitasking screen.



2. Press and hold the application window to be closed and swipe to the top of the screen.



7. User Guide

The Apple iPad user Guide contains all general information for the iPad including:

- An overview of iPad buttons and screens
- Common iPad functions
- Customizing the iPad
- General iPad help

The User Guide for the iPad 4 Mini can be found at the following location:

https://manuals.info.apple.com/MANUALS/1000/MA1595/en_US/ipad_user_guide.pdf

8. Protective Case

Care and Maintenance for ~~the~~a protective case can be found on the 'Survivor' website:

<http://griffintechology.com/support/survivor>)

To clean ~~the~~a protective case:

1. Remove the iPad from the protective case
 - i. Be sure to use a flat and stable surface when removing iPad from protective case.
 - ii. Unclip screen protector from plastic shell, starting at the top of the iPad.
 - iii. Place both hands on both sides of the top left corner of the case. Use your thumbs to press out and down on the case until you hear a click. Work your way around, repeating this motion on the other corners of the case. When pressing down on the third corner, the iPad will come out of the hard plastic shell.
2. To clean the protective case it is suggested to use a clean, lint free cloth with warm water. Avoid applying corroding cleaning products such as alcohol and chemical based cleaners.
3. Be sure to allow protective case to completely air dry before putting the iPad back into the case.

