

6 Check Surveys

6.1 Check Surveys

The District Manager is responsible for conducting check surveys on timber sale licences, forestry licences to cut and permits issued under B.C. Timber Sales, major licences, woodlot licences, community forest agreements, community salvage licences and road permits.

Waste check surveys are activities included in the district's Internal Performance Measure.

Check surveys determine whether:

- a. surveys and oculars were properly planned and conducted,
- b. waste measurements and classifications were carried out according to the
- c. *Provincial Logging Residue and Waste Measurement Procedures Manual*,
- d. maximum allowable errors specified under Section 6.3 were not exceeded, and
- e. field assessments and reports were completed and submitted on schedule.

To enable the district to conduct check surveys while the survey crew is on site, a Block Survey Plans notification should be submitted to the District Manager at least 30 days prior to expected field work. Any changes to scheduled field work should be communicated to the district as soon as possible to facilitate rescheduling of check surveys. It is the **Ministry of Forests, Lands and Natural Resource Operations** prerogative to conduct a check survey at any time. If the survey crews will not be on site during the check survey, then the plot cards must be submitted to the district office no later than 1 week after the completion of the survey on that block.

6.2 Check Survey Standards

Check surveys verify that the field measurements are taken and recorded correctly. The check survey will re-measure all the pieces that should have been measured in the original plot. The survey or parts of a survey of a cutblock or a reporting unit can be accepted or rejected based on the results of the check survey.

In addition to meeting the requirements in Section 6.3 (Maximum Allowable Errors), waste surveys should meet the minimum sampling intensities requirements.

Field Services staff may check more than the minimum requirement if it is necessary to ensure compliance with the manual standards (i.e., previous check(s) showed borderline acceptable work).

The **Ministry of Forests, Lands and Natural Resource Operations** waste check surveys standards are:

6.2.1 Number of Blocks

1. Cutblock Option.

To check at least 10 percent of the measured cut blocks to a minimum of at least one cut block. This applies to both major licensees and the BC Timber Sales cutblocks.

- a. To check all plot cards, reports, and data entry.

2. Aggregate Option.

To check a minimum of 10 percent of the measured cut blocks in each reporting unit to a minimum of at least one block.

- a. To check 10 percent of the plot cards for every block against the plot listing report for data entry errors or incorrect methods of recording plot information.

3. Ocular Estimates

- a. To check at least 10 percent of the available cutblocks.

6.2.2 Check Requirements

In check surveys, the following number of plots and items are re-measured:

1. Cutblock Option

Dispersed Area:

- a. at least 10 percent of the plots in each selected block,

- b. a minimum of two plots or at least 1 plot per stratum, whichever is greater,
- c. check and account for all standing trees not harvested,
- d. check plots are properly located.

Accumulations:

- e. at least 10 percent of the plots in each selected block,
- f. a minimum of 2 plots, or at least 1 plot per stratum, whichever is greater

2. Aggregate Option

- a. at least 10 percent of the plots in the selected blocks must be checked,
- b. at least 2 plots per stratum, whichever is greater in each selected block,
- c. check plots are properly located, and
- d. check and account for all standing trees within the selected cutblock.

If more than one crew conduct surveys within the reporting unit, each crew should be checked on a weighted basis.

3. Ocular Estimates

- a. check reported estimates are representative of the waste levels on site, and
- b. check and account for all standing trees not harvested.

6.3 Maximum Allowable Errors

Measurement of a random selection of sample plots within a cut block is used to assess the acceptability of the survey results. The items to be checked and their acceptable limits of errors are specified below.

6.3.1 Net Volume or Value

Exceeding the parameter for either the net volume or net value of waste (avoidable and unavoidable) may be grounds for rejection of the survey.

Net Volume	
(Coast and Interior)	The net volume of waste for all checked plots must not vary by 10 percent from the net volume of waste determined by the check surveyor.
Net Value	
(Coast and Interior)	<p>The net value of waste for all checked plots must not vary by 10 percent from the net value of the waste determined by the check surveyor.</p> <p>The net value is derived by multiplying the volume of each species/grade combination by the applicable twelve-month average stumpage rate of the timbermark pertaining to the species, grade and waste class.</p>

6.3.2 Individual Parameters

Although the net volume and value are the main determining factor for accepting or rejecting a survey, a survey may be rejected if any of the individual parameters have been exceeded.

Sample Error	S.E.% must fall within the indicated S.E. percent for the dispersed and accumulation areas on Tables 4-4 and 4-5 (Interior) or Tables 4-2 or 4-3 (Coast).
Horizontal Distance	Strip to strip and plot to plot must be plus or minus 3 percent.
Area (stratum)	Plus or minus 2 percent.
Area (tree patches)	Plus or minus two (2) percent.
Bearing	Plus or minus 2 degrees (strip to strip or plot to plot).
Measure Percent	Plus or minus 10 percent.
Estimated Plots and Volumes	Plus or minus 20 percent.

Failure to follow the procedures specified throughout this manual may result in rejection of the survey. Some examples are:

- a. not locating plots in accordance with the assigned SPIF,
- b. incorrect location of plots (not using the correct POC and Grid Spacing Distance),
- c. locating plots in the wrong stratum,
- d. establishing more plots or less plots than required from the pre-determined sampling intensity,
- e. establishing a plot which samples outside the stratum it is located in,
- f. check surveyor is unable to audit the layout of the plots,
- g. check surveyor is unable to audit the plots and pieces due to poor marking, and
- h. using an incorrect method of selecting the piles to be sampled.

6.4 Acceptability of Block Results

If the net value and volume of the checked plots falls within the specified variance, then the survey is deemed to be acceptable unless the procedures specified in the manual were not adhered to (i.e., incorrect area used, log decks not included in the survey). Any obvious bias in grades and/or waste class which affect monetary billing will result in rejection of the survey.

If the net volume or value parameters are not met then the check survey will pinpoint the areas of weakness and allow that portion or entire survey to be redone.

If more than three check surveys or 30 percent of the checked cutblocks within a reporting unit are rejected, the district manager may order that all the cutblocks within that reporting unit be resurveyed.

Rejection of a survey will count against the waste surveyor for the purposes of validation of their certification. If more than one (1) waste surveyor worked on a cutblock, the rejection will count against the waste surveyor whose fieldwork caused the rejection.

6.5 Non-Compliance with Check Survey Standards

If the licensee's or contractor's survey work is rejected after a check survey, the District Manager may order the licensee or contractor to re-survey the entire cutblock or those portions of the original survey that caused the rejection. The re-survey must be completed within 60 days of the District Manager's notification.

The licensee or contractor will be responsible for any costs they incur in the re-survey.

A full or partial re-survey is subject to check surveys carried out at the District Manager's discretion.

6.5.1 Second Check Survey

A licensee or contractor who has been ordered to perform a re-survey may request a second check survey in writing to the District Manager.

The District Manager may have a second check survey performed by ministry personnel that were not involved in the first check survey.

If the second check survey:

- a. Finds the original survey in non-compliance with check survey standards,
 - i. the licensee or contractor will perform a re-survey to replace the original survey at his expense, and
 - ii. the licensee or contractor who requested the second check survey must pay to the government the charges, costs and expenses incurred by the government in respect of the second check survey.
- b. Finds the original survey in compliance with check survey standards,
 - i. the original survey stands, and
 - ii. no charges, costs and expenses are payable to the government.

6.5.2 Dispute Resolution (BCTS)

Where there are billable waste volumes on a Timber Sale Licence, Forestry Licence to Cut or permit issued by BCTS following a waste assessment conducted by BCTS, the Timber Sales Manager may notify the TSL holder about the waste assessment results. In the event that the TSL holder disputes the waste assessment results, the holder may submit a letter in writing specifying the grounds of dispute to the TSM within thirty (30) days of receiving the assessment results.

If the TSL holder is notified of the assessment results and no letter of dispute is received by the TSM, the TSL holder is deemed to have accepted the waste assessment results.

Once the TSM has forwarded the TSL waste assessments to the District Manager, subject to the field check that may be carried out by the district staff, the results are deemed to be final.

Any disputes relating to the check surveys and waste billing rates should be directed to the District Manager.

6.6 Material Disposed of Prior to Waste Assessments

If waste materials on a cutblock, landings, and roadside or spot accumulations are disposed of prior to the completion of waste assessments, the District Manager may bill the licensee monetarily and for cut control by using the higher of the district or the licensee waste volume average experienced for the stratum type in the past year or the best information.

Additionally, the District Manager may bill the licensee for the administration and field costs incurred in preparing the estimates.