

# Description of Environmental Impact Assessment method used in the 2005 Environmental Audit of Timber Production on Public Land

## 1. Objective

The objective of this document is to describe the approach adopted by the independent environmental auditor during assessment of the environmental impact of non-compliance identified during the 2005 Environmental Audit of Timber Production on Public Land. The environmental impacts of the sample are determined within the context of each focus area.

## 2. Environmental Impact Assessment Method

When considering a code breach relating to the workbook elements, the impact of the breach on the environment must be assessed using the environmental impact assessment method provided in Table 1 as a guide. The impact assessment is to be based on the non-compliance observed at the time of audit and should be conducted in consultation with a forest officer.

- The environmental impact assessment is based on the following factors (see Table 1a):
  - Extent of impact or disturbance within the sample (E)
  - Duration of impact or expected time to recover (t)
  - Environmental asset value (z)
- Extent of impact or disturbance
  - The extent of the impact, measured as a relative percentage of the sampled area or length, is divided into four categories.
    - 0 – 10%;
    - 11 – 25%;
    - 26 – 50%; and
    - >50%.
  - A fifth category is used when the coupe impact or disturbance directly connects to a pathway that takes the impact offsite; that is, to an area outside of the gross coupe boundary.
  - When assessing landscape level impacts, specifically water yield protection and coupe aggregation, the impact extent is a function of the area under consideration. For example, 120-hectares with respect to coupe aggregation and 150-hectares when considering capped harvest areas in catchment. In these instances the extent of the impact is measured as a percentage not as an offsite impact.
- Duration of impact or expected time to recover
  - The duration of the impact is defined as the period over which the area will recover to approximate pre-impacted levels. The impact period is divided into three levels,
    - Short term 0 – 12 months;
    - Medium term 12 – 36 months; and
    - Long term > 3 years.

- Environmental asset value
  - The environmental asset value of the impacted area is defined by the relative resilience and resistance of the area affected, and the value of the area as defined by the protection provided for it within the code. The environmental asset value is divided into four categories (see Table 1b);
    - general environmental value, i.e. general harvesting area of coupe or GMZ;
    - filter or drainage line;
    - representative SPZ, i.e. habitat corridors, habitat trees, landscape buffers and some linear buffers; and
    - specific SPZ, i.e. for specific flora and fauna, rainforest buffers and riparian or streamside reserve buffers.
  - When assessing a buffer with a width greater than that required by the code, the purpose of the wider buffer must be determined. Where the purpose of that extra reserve aligns with a stated goal of the code of forest practice; i.e. increased stream buffer width due to slope and soil erosion hazard, then the environmental asset value must reflect this. If the additional protected area does not align with a code criterion, i.e. a 40 metre buffer being installed where there is a requirement of only 20 metres, due to the presence of unmerchantable timber, then the environmental asset value requiring protection is still that area within 20 metres of the permanent stream.
- Assessed environmental impact
  - Following estimation of the duration of impact, the extent of impact and the environmental values affected, the level of the environment impact is estimated. The impact is categorised into five nominal levels;
    - Negligible;
    - Minor;
    - Moderate;
    - Major; and
    - Severe.

**TABLE 1: ENVIRONMENTAL IMPACT ASSESSMENT**

**Table 1a: Determining the Extent-duration of the Impact**

Extent of Impact (E)	Duration of Impact (t)		
	Short Term <i>0-12 months</i>	Medium Term <i>12-36 months</i>	Long Term <i>&gt; 3 years</i>
0 - 10%	A	C	F
11 - 25%	B	E	H
26 - 50%	C	F	I
> 50%	D	G	J
Off-site	E	H	K

**Table 1b: Estimating the Level of the Environmental Impact**

Et Value	Environmental Asset Value (z)			
	General	Filter	rSPZ / LR / LB	sSPZ / RB / RF
A	Negligible	Negligible	Minor	Minor
B	Negligible	Minor	Moderate	Moderate
C	Negligible	Minor	Moderate	Moderate
D	Negligible	Moderate	Moderate	Moderate
E	Minor	Moderate	Moderate	Major
F	Minor	Moderate	Major	Major
G	Moderate	Moderate	Major	Major
H	Moderate	Major	Major	Major
I	Moderate	Major	Major	Severe
J	Moderate	Major	Severe	Severe
K	Major	Major	Severe	Severe

**Key:**

- LR Linear reserve
- LB Landscape buffer
- RB Riparian buffer
- RF Rainforest buffer
- rSPZ Representative special protection zone inc. habitat trees
- sSPZ Specific special protection zone