

# 11.0 Relevant Adjacent Stands (RAS)

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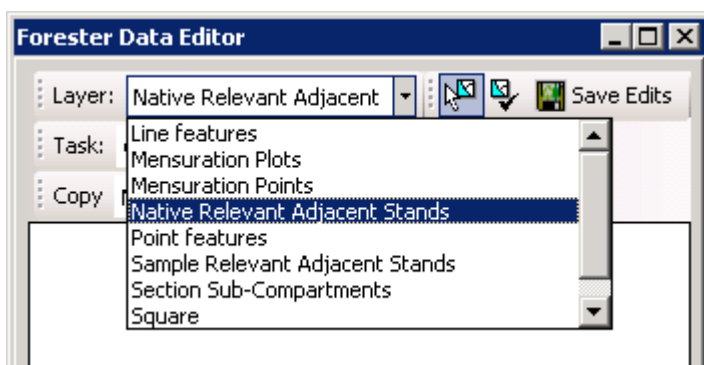
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## 11.0 Relevant Adjacent Stands (RAS)

Relevant Adjacent Stands (RAS) are essentially a continuation of the Section boundary where the Section has been cut by the Square boundary. They should be assessed and mapped or generated for one of the following two reasons:

- To define areas of native woodland (see 11.1) - Native Relevant Adjacent Stand
- To convert whole section plots to circular plots (see 11.2) - Sample Relevant Adjacent Stand

When a surveyor is about to create a RAS the correct Layer within the Data Editor box should be chosen:



- Native Relevant Adjacent Stand
- Sample Relevant Adjacent Stand

### 11.1 Native Relevant Adjacent Stand.

Relative adjacent stands need to be assessed to enable the differentiation of native stands into those greater than half a hectare in size and those less than half a hectare in size. This assessment is necessary where the native stand in question spans the square boundary.

#### 11.1.1 NFI definition of Native Woodland

*An area of woodland  $\geq 0.5\text{Ha}$  in extent composed of  $\geq 20\%$  canopy cover of site-native species in the uppermost canopy.*

Where canopy cover cannot be used basal area or stems per hectare (in that order) can be substituted.

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The woodland may be derived from natural regeneration, coppicing or planting. Scots pine and beech must be within their "Native Zones" – shapefile for each is included in the Support Data folder (load this into ArcMap).

## 11.1.2 Mapping of Native Relevant Adjacent Stands

Mapping for native woodlands only needs to be carried out if the woodland adjacent to the native CG/Section in the NFI IFT Map is **NOT** one of the following:

<b>OUTSIDE PINE ZONE</b>	<b>WITHIN PINE ZONE</b>
Broadleaved	Broadleaved
Mixed mainly broadleaved	Mixed mainly broadleaved
Felled	Felled
Ground prep	Ground prep
Coppice	Coppice
Coppice with standards	Coppice with standards
Young trees	Young trees
	Conifer
	Mixed mainly conifer

Mapping can be carried out via field surveys (surveyors are not expected to walk more than 50m from the Square boundary) and/or desk-based aerial photo interpretation. If the square lies at the edge of the Lot, surveyors are **not** required to get hold of, and load up, the aerial photography for the adjacent Lot. Where possible the entire area of the RAS should be mapped but where this is not possible then the minimum allowable area of RAS to be mapped is that which, when combined with the Section, indicates that the native area within and without the square is  $\geq 0.5$ ha when combined.

## 11.1.3 How to assess whether a Section/Component Group is native

### 11.1.3.1 Canopy cover

Is there  $\geq 20\%$  canopy cover of the site-native components in the uppermost storey/s across the Section/Component Group (CG)?

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- a. Note that this can be different from the %Area field filled in for the component/s.
  - i. E.g. a Section/CG has a single component within the Upper Storey therefore the %Area of this Component is 100%. However the actual canopy cover of the component may be <100%, a sparse cover of oak for example.
- b. If a Section has multiple Component Groups is the total canopy cover, open to the sky, of the uppermost native components  $\geq 20\%$  for the Section?
  - i. A Section has 3 Component Groups: CG1 (50% of the Section) has an Upper storey of oak with a canopy cover of 10% with a Lower storey of spruce, CG2 (20% of the Section) has an uppermost Lower storey of spruce with a canopy cover of 100%, and CG3 (30% of the Section) has an Upper storey of oak and spruce with 50% canopy cover each across the CG.
    - ii. Canopy cover of the oak across the section is therefore: 10% of 50% + 0% of 20% + 50% of 30% = 5% + 0% + 15% = 20% therefore the Section is considered native.
- c. Spatially explicit CG's are considered separately from the Section with respect to nativeness where the CG crosses the square boundary. See exception b below.

## 11.1.3.2 Basal Area or Stems per Hectare

If canopy cover cannot be used then basal area or stems per hectare may be used but consideration must be given to the facts that:

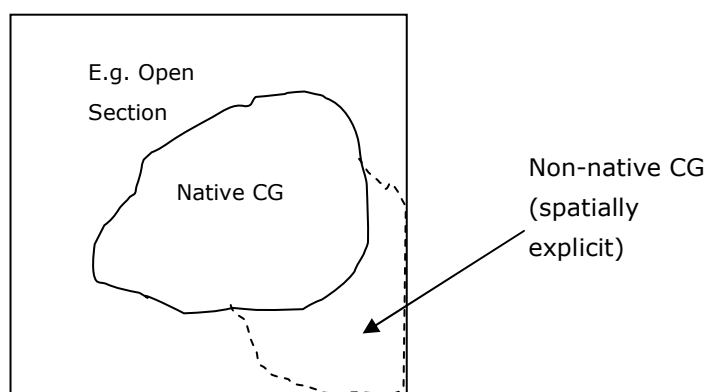
- Seedling and Sapling storeys may have no basal area (i.e. the trees are below 1.3m in height)
- The younger the stand of trees then generally the more stems there are.

In this case a subjective assessment needs to be considered about the likely basal area/number of stems of any lower storeys were they in the same storey as those above they are being compared to.

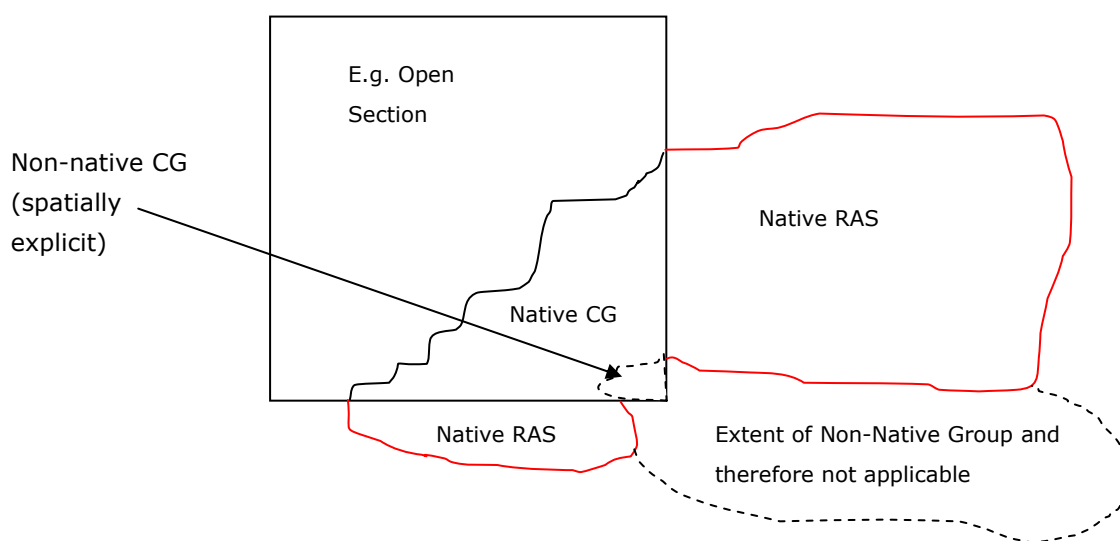
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## Exceptions:

- a. A Section contains a Component Group of native species which is situated wholly within a Square but has a second Component Group of non-native species which crosses the square boundary: the RAS is not created as the only species outwith the square is non-native and therefore does not represent the composition of the native CG of the Section.



- b. A Section contains a native Component Group and a non-native Component Group. The Component Groups are spatially explicit (i.e. not intimately mixed) but one or both Groups were too small to map out as a Section. The RAS should encompass the native woodland outside the Square which is homogenous with the native Component Group but should not include the non-native spatially explicit Group's continuation outside the Square.



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## 11.2 Sample Relevant Adjacent Stand

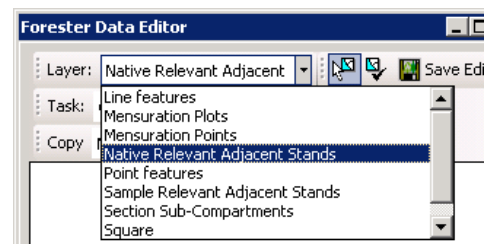
If a Section (native or non-native) is likely to be Whole Section Plot (i.e. there are < 40 measurable trees in it) then if it continues across the Square boundary a RAS can be mapped and the trees within the RAS are then counted for the purpose of assessing whether the Section has <40 measurable trees in it. This will result in fewer Whole Section plots overall.

- When counting the trees within a RAS, to assess whether the site is a Whole Section plot or not (<40 measurable trees), only count trees up to **21m** from the square boundary as only trees within this distance can be sampled by circular plots – the software will not allocate plot centres further than 15m from the square boundary. Therefore map out to 21m from the Square boundary where possible.

## 11.3 Create Relevant Adjacent Stands

Choose the appropriate Layer within the Data Editor box. The RAS must start and finish by crossing the Square boundary and each RAS relates to a single section only.

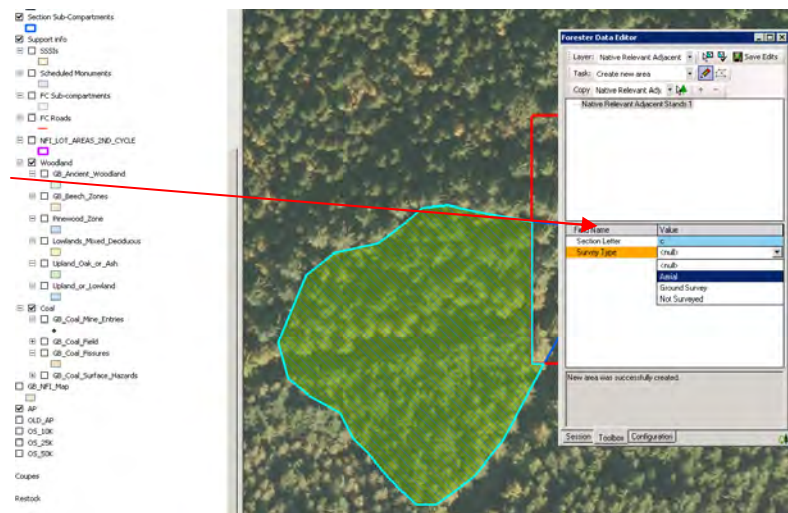
In the Data Editor choose Relevant Adjacent Stands from the Layer drop down menu and then 'Create new area' from the Task menu.



Select the button and click on the screen to highlight the location of the RAS.



Ensure the shape overlaps the Section to be extended so that the software will automatically link the two. Double click (F2) to complete the new area.



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## 11.4 For a re-measure square

In native sections or CG's at the edge of the square, surveyors should look outside of the section and confirm if the IFT map is correct and reflects whether the RAS is native or not. If it is correct then do nothing. If it is not correct create a RAS to reflect the actual extent of the native RAS. For this purpose assume that relevant IFT's can be native, such as young trees, mixtures, clearfell and assumed woodland (see list in Section 11.1.2).

To help ascertain change since the last survey, copies of the original AP used at the time of last survey will be issued. This will help confirm clearfell etc., but also if the previous surveyor interpreted section boundaries reasonably. If the old AP was offset as against your AP, do not change you section boundaries to reflect this, unless they are more than 10m or 10% out.