



Land Use and Carbon Analysis System (LUCAS) Pre-1990 Planted Forest Inventory 2015

Information Release for Survey Site Landowners

Interpine is working with the **Ministry for the Environment (MfE)** on a planted forest inventory system for carbon monitoring. The first planted forest measurements were completed in 2007 and 2008 (post-1989 forests) with further surveys in 2010 (pre-1990 forests) with additional data being collected on forest health on behalf of the Forest Owners Association. In 2011 and 2012 all the post-89 plots established in 2007 and 2008 were re-measured and some additional newly identified plots established. In 2015 the pre-1990 plots established in 2010 will be re-measured along with 25 newly identified sites.

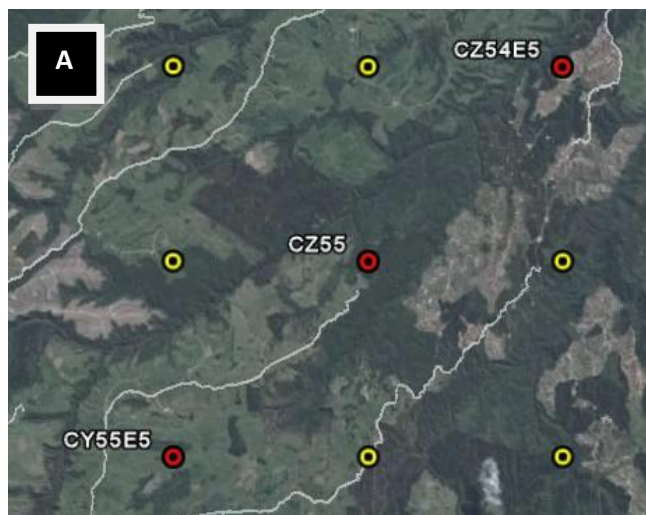
So what is LUCAS ?

The New Zealand Land Use and Carbon Analysis System (known as the LUCAS project) is a programme of work to measure and monitor the national level carbon stocks of New Zealand's forests and soils. Carbon stock information is required for New Zealand's reporting requirements under the Kyoto Protocol and the United Nations Framework Convention on Climate Change. LUCAS is an important part of the Government's climate change policy package and will help inform our future international climate change negotiations. The data collected will also be used by MfE in the Net Position Report.

For more information on LUCAS see <https://www.mfe.govt.nz/sites/default/files/measuring-carbon-emissions.pdf>

Why is LUCAS interested in trees on my land?

The NZ Planted Forest Carbon Monitoring System uses a national grid-based network of permanent plots to provide an unbiased estimate of carbon stored in planted forests. Sample points are located on a 4km grid across the country. A sample point (also referred to as a site) is deemed to be part of the permanent plot network if any part of the plot falls within an area of planted forest (shown in **A** - 4km grid in yellow with survey sites falling in planted forest selected in red). Around 212 of these sites have been selected across the country for measurement during 2015. The LUCAS project has already completed a similar inventory of natural forests using an 8km grid and the re-measurement of these plots is currently underway.





Who is involved with this LUCAS Project?

Interpine has been contracted by **MfE** to complete the field survey of the 212 sites around NZ. On site it is our staff who you will be dealing with. Sarah from our team will contact you to let you know when to expect our field team on site. If your LUCAS plot has yet to be established, you or a representative of the owner will have been contacted by **MfE** (Nigel Searles) by phone, letter, or e-mail regarding permission for access onto your forest land. If your LUCAS plot was established during 2010 feel free to contact Nigel (contact details are below) for further information on the project if required. After we survey your site you may also be contacted by **Scion Research**. They will be conducting an audit of our field work on a small percentage of the sites.

What happens on a LUCAS survey site?

Data is collected from a 0.06ha circular plot centred on selected 4km grid points.

We collect data from 2 potential carbon pools on site, i.e. above-ground live biomass (trees and shrubs). This includes capturing measurements of tree size (**B**), species (**C**), soil samples and forest health (**D**). We will be removing from the site about 250g (or a cupful) of top soil.

The site will be marked by 3 trees painted with white paint and a number (witness trees) to help triangulate the location of the site centre in the future (shown in **E** right). Plots established in 2010 have the centre marked with a 30cm metal pipe in the ground to for future re-location using a metal detector (shown in **F**). New plots will also have their centre marked with the 30cm metal pipe. If you have any concerns about this let our field crews know.



What information can landowners provide to assist in the LUCAS project?

There are a number of ways you can assist with the project. We would greatly appreciate information like:

- Confirmation of land owner contact details, and any other parties which should be contacted now and in the future about access to the site (farm or forest managers). Also note your preferred method of contact: phone, fax, email, or letter.
- The easiest way to get access to the 4km grid point location (we can provide maps on request).
- Do we need any gate keys / permits or special equipment (RT radio's, Quad bikes) to access the site?
- Let us know of any concerns you have with access e.g. lambing, inaccessible after heavy rain.



- When were the trees planted, and was the land under them forest or pasture as of 1990?
- Have you conducted any silviculture on the trees (pruning, thinning, fertilising, spraying)?
(If you don't know the age or silviculture (for example due to change of ownership), our expert field teams maybe able to help you understand this from the data they collect)
- Has the forest been harvested and replanted or had a landuse change?

Will we be back? If so how often?

Yes most likely, a MFE contracted company will be back to re-measure these sites in the future. These sites are established as a permanent network around the country. This is the first time the plots established in 2010 are being revisited. It is intended all or a sample of the sites will be re-measured over time.

What if you plan to cut the trees down, or thin or prune trees at the sample site?

You are free to do as you please with the site. LUCAS aims to gather growth and carbon stock information from the site over time and you should treat the site how you would the rest of your forest or planted area. It is normal forestry practice to do all of the above so we expect this will occur, and there is no need for you to notify MfE if this occurs, as we will simply catch-up on these events next time the plot is re-measured.

Where will the information be used? Who has access to it?

On your request this information will not be shared outside of the LUCAS project and used only for its primary objective of monitoring carbon stock change in New Zealand's planted forests therefore advancing New Zealand's reporting commitments under the United Nations Framework Convention on Climate Change (UNFCCC), and the Kyoto Protocol. If however you are ok with the data being shared with other projects you can let us know and we can tag your dataset if indeed other parties would like to use it. Previous users of the LUCAS dataset are the Forest Owners Association (forest condition monitoring), research institutes (including Future Forests Research, Scion, training organisations and universities) and MPI (ETS method development and look up tables).

Can you get a copy of data collected onsite?

Yes of course, you are welcome to the dataset collected by our teams. This will include all maps, photos, lab results and data collected onsite (shown in G). Please let our teams know you would like the dataset and we can send this to you at the end of the measurement season.

Does this inventory work out the carbon credits on my land ?

In short no. We have had many landowners interested in understanding the potential of "carbon credits" and trading schemes related to the introduction of legislation called ETS (emissions trading scheme). The LUCAS project is separate from ETS and has been running for several years (Natural forest surveys started in 2002). The data collected on your land would not be a sufficient sample on its own.

So what is this ETS legislation about then ?

"The Government has passed legislation which establishes an economy-wide Emissions Trading Scheme (ETS) covering all greenhouse gases in New Zealand. The ETS is designed to allow New Zealand to meet its international climate change commitments (for example, under the United Nations Framework Convention on Climate Change and its Kyoto Protocol) at least cost in the long term. It will require specific

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PLANTED FOREST DATA COLLECTION SYSTEM**

SURVEY DATAFILES AND PHOTOS

CMS PLOT IDENTIFIER: CJSSE1 DATE: 25-Sep-07
CMS Survey ID: CJSSE1_Pf070925

Site Data Files - references to files attached to survey such as photos, scanned plot sheets, waypoints files. A hyperlink is provided for users to download each datafile. Note if you are having trouble viewing this page using the online viewer - export to PDF.

No.	File Name	Ref	Comment	File Type
	CJSSE1_Pf070925.pdf		Paper Plot Sheet Scanned - Appendix 16.TC	PDF
	CJSSE1_Pf070925_GPS-Correct_XXXX.txt		GPS Site File - Diff. Corr. Process Audit File	TXT
	CJSSE1_Pf070925_GPS-XXXX.COR		GPS Site File - Post Differential Correction	COR
	CJSSE1_Pf070925_GPS-XXXX.SSF		GPS Site File - Raw Rover Data File	SSF
2	CJSSE1_Pf070925_Photo059.jpg			JPEG
2	CJSSE1_Pf070925_Photo057.jpg			JPEG
2	CJSSE1_Pf070925_Photo058.jpg			JPEG
2	CJSSE1_Pf070925_Photo059.jpg			JPEG
2	CJSSE1_Pf070925_Photo059.jpg			JPEG

Survey Photos (Thumbnails) - a thumbnail view of all photos taken onsite during a field survey. Hyperlinks are provided to download the photos in their original file format and size (usually 300-500KB).

No. 3EC-2 File Name: CJSSE1_Pf070925_Photo059.jpg No. 3EC-2
Photo Ref: Comment:

No. 3EC-2 File Name: CJSSE1_Pf070925_Photo057.jpg No. 3EC-2
Photo Ref: Comment:

No. 3EC-2 File Name: CJSSE1_Pf070925_Photo058.jpg No. 3EC-2
Photo Ref: Comment:

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Plot 3 Tree Layout Map

Grid North

West

South



people and companies to surrender emission units (NZUs) or other Kyoto Protocol emission units to match the level of emissions for which they are responsible. The NZUs will be able to be bought and sold by the private sector.

Where can I get more information ?

The LUCAS Project :

<https://www.mfe.govt.nz/climate-change/tracking-greenhouse-gas-emissions/measuring-forest-carbon>

UNFCCC and Kyoto Protocol:

<https://www.mfe.govt.nz/climate-change/international-forums-and-agreements/united-nations-framework-convention-climate>

MPI's Emission Trading Sceme for Forestry (ETS) :

<http://archive.mpi.govt.nz/forestry/forestry-in-the-ets>

In Summary

I hope you have found this information useful and please feel free to contact us if you have any further questions.

Kind Regards

David Herries

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FURTHER CONTACTS

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Disclaimer:

This information release has been put together by Interpine Forestry Ltd to assist landowners or interested parties help understand why we are coming onto their land to measure their trees. This is not intended as an official information release from MAF, or MFE and if landowners would like more information please review the websites listed above, and related contact details.