

TOOLBOX: SUMMARY OF MAPS



01 What information will I need?

- Plenty of copies of a good-size farm map based on aerial photos
- A range of different-coloured marker pens
- Deer Industry Environmental Management Code of Practice: p12–16 for land use capability mapping and land use options
- Beef + Lamb NZ: Land Management Unit template

Tick these off as you go

1. Collect the information you'll need



2. Note the information you'll need to record on your farm maps



3. Create your maps



DID YOU KNOW

Your farm map
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- A farm map will be the **basis of your Farm Plan** and will bring it to life. When you start out you will probably need more than one map to record everything on to keep it readable, so have a few copies available to draw on.
- Put your maps together **early** in the process when you are doing your farm description and before you start on the Action Plan modules. The maps will be useful reference as you work your way through the modules.
- Whoever does the farm map work should be well **familiar with the farm landscape** throughout the seasons, land use limits and any quirks such as presence of springs, ephemeral streams or vulnerable soil types.



02 What do I record?

- The property address and the date
- A north arrow
- Boundaries
- Houses
- Any significant natural areas (SNAs) of indigenous biodiversity on or next to your property
- QEII or other covenant areas
- Permanent or intermittent rivers, streams, lakes, drains, ponds, overland flow paths, and wetlands
- Vegetation and fencing next to waterways
- Storage facilities such as fertiliser bins, silage, chemical sheds or fuel tanks
- Offal or rubbish pits
- Feeding and stock holding areas, woolsheds, deer sheds, wintering facilities, dairy sheds and yards
- Effluent blocks
- Raceways, tracks and crossings
- Culverts and bridges over waterways
- Areas where animals cross through waterways
- Critical source areas for sediment loss, such as erosion or forestry harvesting
- Forestry, bush and scrub
- Land Management Units
- Land Use Capability areas on your property if you have them. Your local council may be able to provide these.
- Soil types
- Sources of human drinking water
- Location of any significant historical sites including wāhi tapu or wāhi tūpuna (sacred, or ancestral sites for tangata whenua – regional councils may be able to assist)
- Location of any important mahinga kai sites.



DID YOU KNOW

NZFAP+ and your farm map
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Are you aiming for NZ Farm Assurance Plan Plus (NZFAP+) accreditation? [Check their standards for farm mapping \(farm infrastructure and natural resources\) here](#), to make sure your map ticks all the boxes.



03 Create your farm maps



HANDY HINTS

Map legend

It can be hard working out where to begin. Here's an example of a map legend to help get you started (potential critical source areas are marked*). In reality, you might not have all of these things on the one map. See examples of individual maps below.

- Minimum Requirements:** * Potential critical source areas
- Boundary of property
 - Waterways – Permanent (P), Intermittent (I), Spring-fed (S), Open drains (D), Water races (R)
 - Ponds/dams* (P), Lakes (L), Wetlands* (W), Wallows* (Ww)
 - Riparian vegetation (R)
 - Fences adjacent to waterways, water bodies and riparian vegetation (indicating stock access)
 - Stock waterway crossing points* / culverts
 - Erosion control / flood protection infrastructure
 - Significant indigenous biodiversity in District Plan
 - High run-off risk P zone in Regional Plan*
 - Tracks*
 - Erosion / pugging areas*
 - Offal and rubbish pits*
 - Silage pits*
 - Septic tank field*
 - Fertiliser storage*
 - Dips / yards*
- Other critical source areas
- Recommended:**
- Forestry blocks
 - Scrub and bush / fencing
 - Shelterbelts
 - Haybarns / other farm infrastructure
 - Bores / wells
 - Chemical / fuel storage
 - Gorse/broom and other weeds
 - Wilding trees
 - QEII covenants / archaeological sites / cultural sites / mahinga kai sites
 - Power lines / pipelines / easements
 - Ephemeral waterways (sometimes flowing)



Water flow map example

Map out the way water flows across your property. Note if streams flow all the time, or only part of the time (ephemeral streams). Are there flow paths that get wet when it rains, but otherwise are grassy? Are there boggy areas that you don't graze in winter? These all need recording too. See examples on the map below.

A Farm, 123 Rural Road, Townville | Scale 1:9,500 | Created 20/8/2020



Water flows

 Permanent stream
  Intermittent water way
  Wetarea

These areas, where water flows some or all of the time, are good places to start when you're looking for risks. Are your deer shed or yards near a waterway? Are there places you cross a stream with stock more than twice a month?



Ephemeral stream

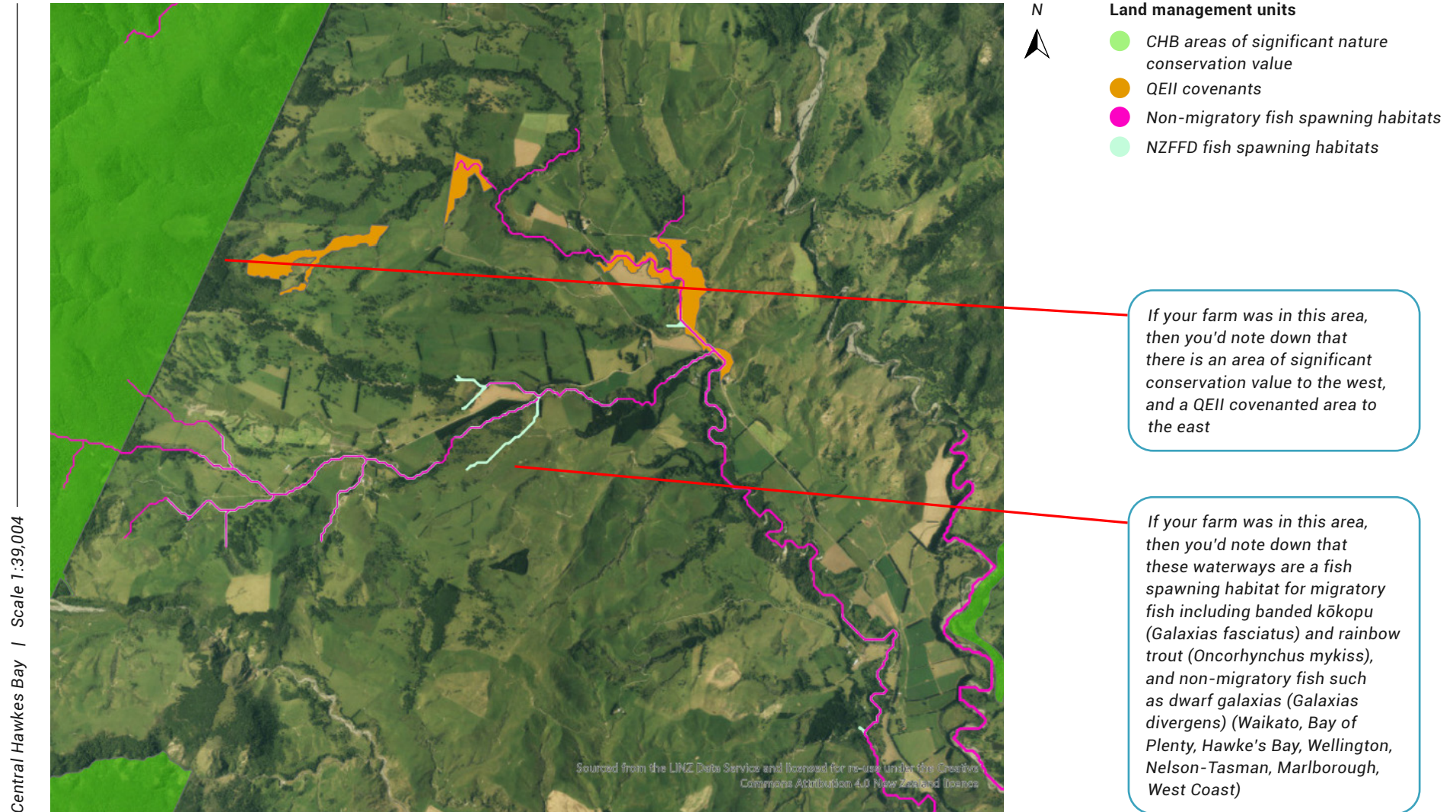


Permanent stream with bridge for stock to cross.



Significant natural areas (SNAs)

Your farm environmental planner or regional council should be able to provide you with a map of the significant natural areas and important waterways around your property. The example map below shows a small area of Central Hawke's Bay with significant natural features marked.





Soil maps

A paddock-scale soil map for your farm is the gold-standard for soil information. However, these can be expensive, and there are few experts available to do the mapping.

An alternative is S-map, an online map of New Zealand soils for some parts of the country. You need to register on the site. It provides general information about soil properties and can be accessed from [Landcare Research](#).

Search the map to get an idea of the soils on your farm. Fact sheets explaining characteristics of those soils can be downloaded. [OverseerFM](#) uses S-map where it is available to estimate nutrient movement through the profile.

Soil names have changed as new surveys and classifications have been developed so the names showing in S-map might not be the ones you are familiar with. However the fact sheets can be useful when marking out your Land Management Units.

If your farm isn't covered by S-map, contact your regional council for local soil information.

S-maps online is a good way to get an indication of your farm soils.



Land Management Unit mapping

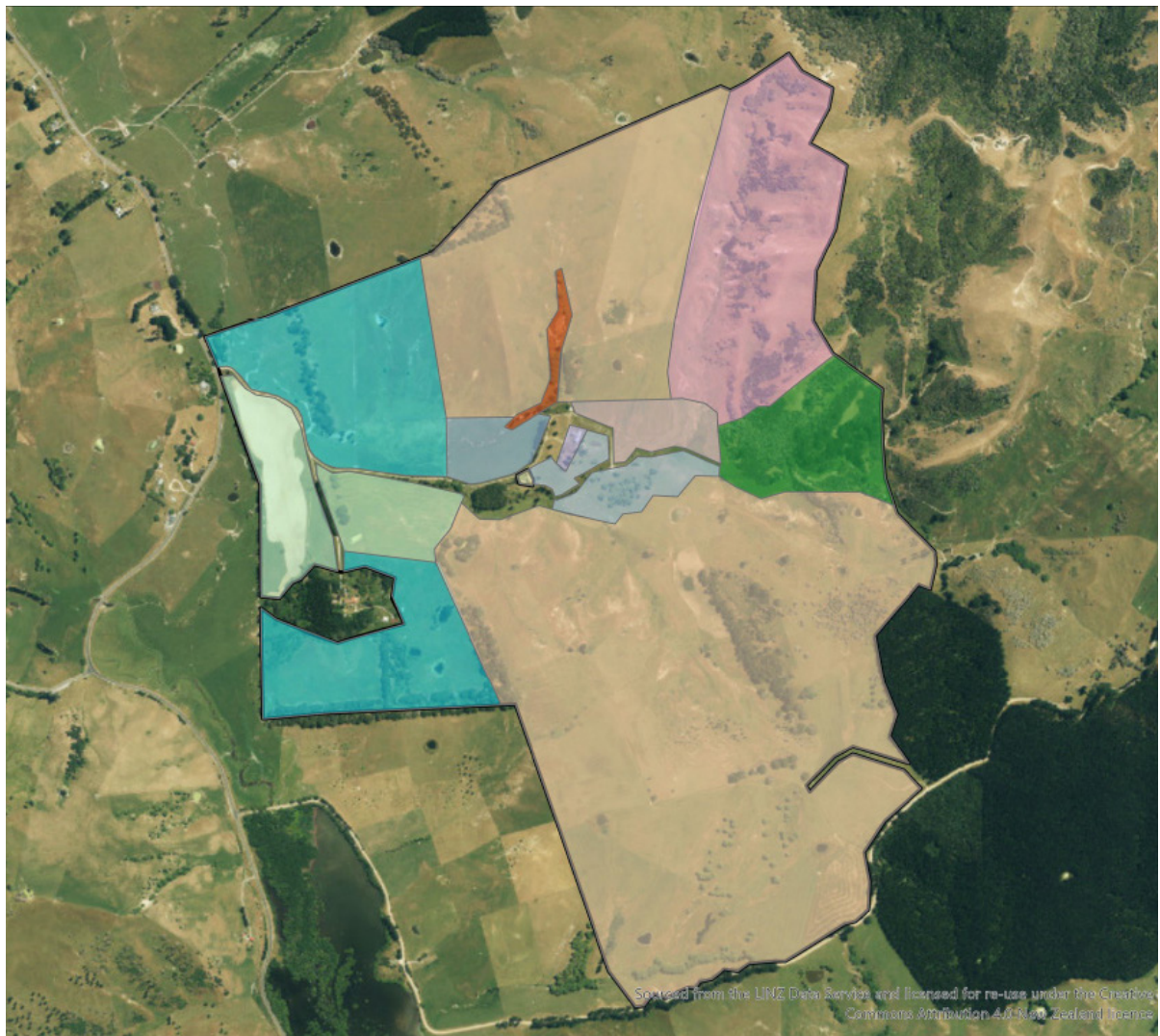
Land Management Units (LMUs) are areas of your farm that you manage in a similar way. They might not be side by side.

You might start by marking deer fenced areas or splitting the farm into areas where you apply fertiliser with a truck, versus where you fly it on.

Page 15-16 of the Deer Industry Environmental Code of Practice has useful information on land use and management options for deer farming.

In the example below, we started with broad blocks/sections, mostly showing how the area was fenced and how steep it is. This has been done on a computer, but you can achieve the same with marker pens and a paper map!

Deer Farming Ltd, 123 Rural Road, Townville | Scale 1:15,177 | Created 24/7/2020



Boundary

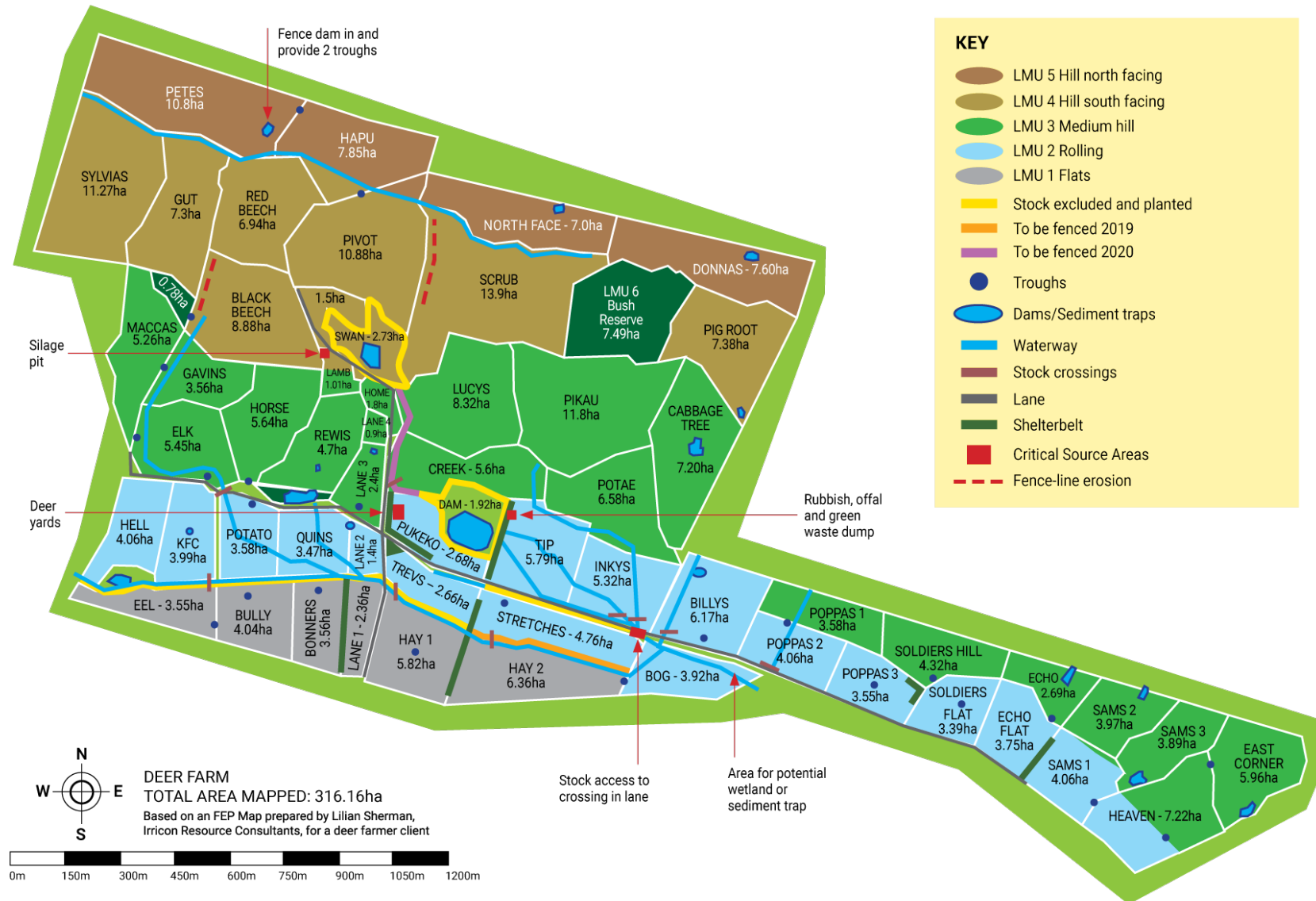
○ Boundary

Land management units

- Bush and scrub
- Deeply eroding gully, fenced and planted
- Easy hill pasture - deer fenced
- Easy hill pasture - not deer fenced
- Flats - deer fenced
- Flats - not deer fenced
- House
- Rolling pasture - deer fenced
- Sheds and yards
- Steephill pasture - not deer fenced

Land Management Unit mapping cont.

This example (below) from the Deer Fact Farm Environment Plans – the whys and hows of preparing them shows an LMU map that was prepared by a consultant for a deer farm client.



Land Management Unit mapping
cont.

It can be useful to describe each land management unit. The Beef and Lamb LMU template (below) gives you space to describe each block and its strengths and weaknesses. [The template is available on from Beef + Lamb.](#)

It can be downloaded, filled in on screen and saved to your computer.

Resource Chart

OT4

LMU	DESCRIPTION	STRENGTHS	WEAKNESSES	USES AND MANAGEMENT

FOR FURTHER INFORMATION

- **Deer Fact:** [Farm Environment Plans – the whys and hows of preparing them](#)
- **Beef + Lamb NZ:** [Map your land resources](#)
- **LandscapeDNA:** [To map how the natural landscape affects water in your area](#)