Reducing Flood Risks on Food and Fibre Production: Banyula Case Study

STUDENT WORKBOOK

BANYULA

YEAR 9

This resource has been developed by:

Primary Industries Education Foundation Australia

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SFIRP
STORM & FLOOD INDUSTRY RECOVERY PROGRAM

Contents

Student Worksheets

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WORKSHEET 1:

Mapping Activities for Banyula Farm

Exercise 1: Google Earth

Use Google Earth to find the location of Banyula-Saratini Farm.

Use: Saratini farm; Stewarts Road; Clunes as your search term in Google Earth.
Under the tab map layers turn on: Everything.

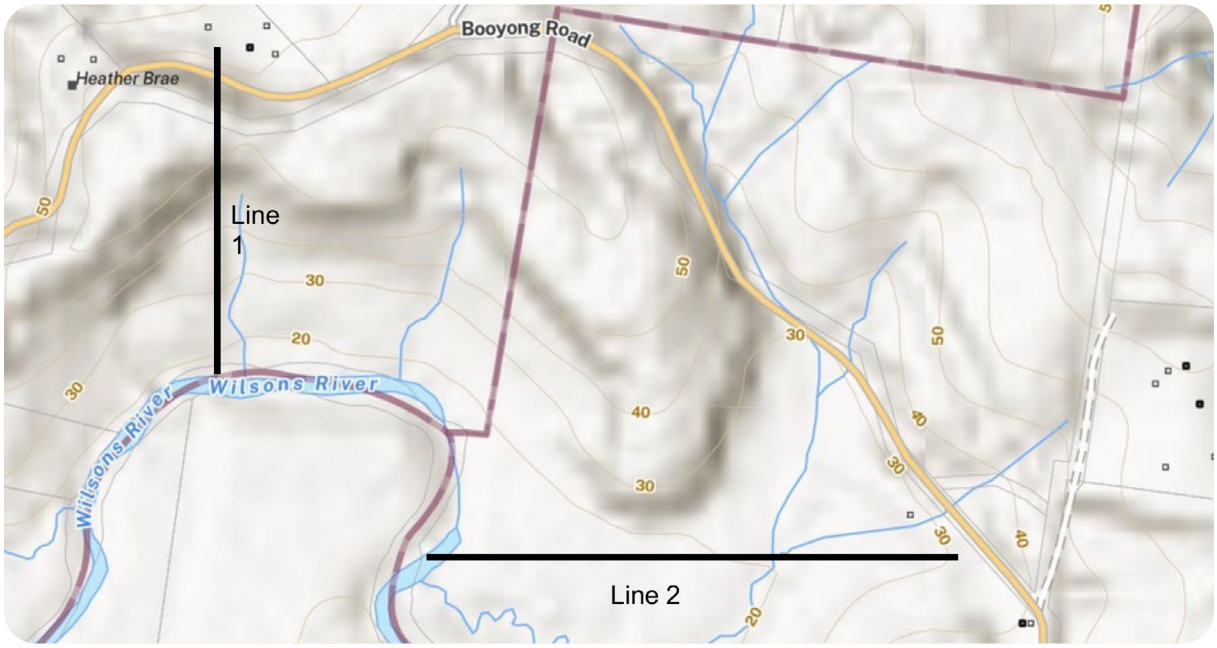
1. What is the name of the road you turn off to drive through the farm?

2. Find Stewarts Road (near Smart Rain Water Solutions) and follow Stewarts Road until it meets Booyong Road. Take the right fork of Booyong Road and follow the road until you find Booyong Nature Reserve.
What is the name of the river you cross?

3. What is growing along the river banks?

4. Compare the tree plantings in the orchards to that along the river banks.
What do you notice and can you explain why there is a difference?

Map 1: Topographical Map of Banyula Farms showing boundary with Wilsons River



Exercise 2: Mapping

5. Using the topographical map above draw a cross section provided along line 1 and line 2 in the space provided. (River height 10 m)

6. Compare the two cross sections and explain what would happen at each site if the Wilsons River flooded.

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WORKSHEET 2:

Farming on Banyula

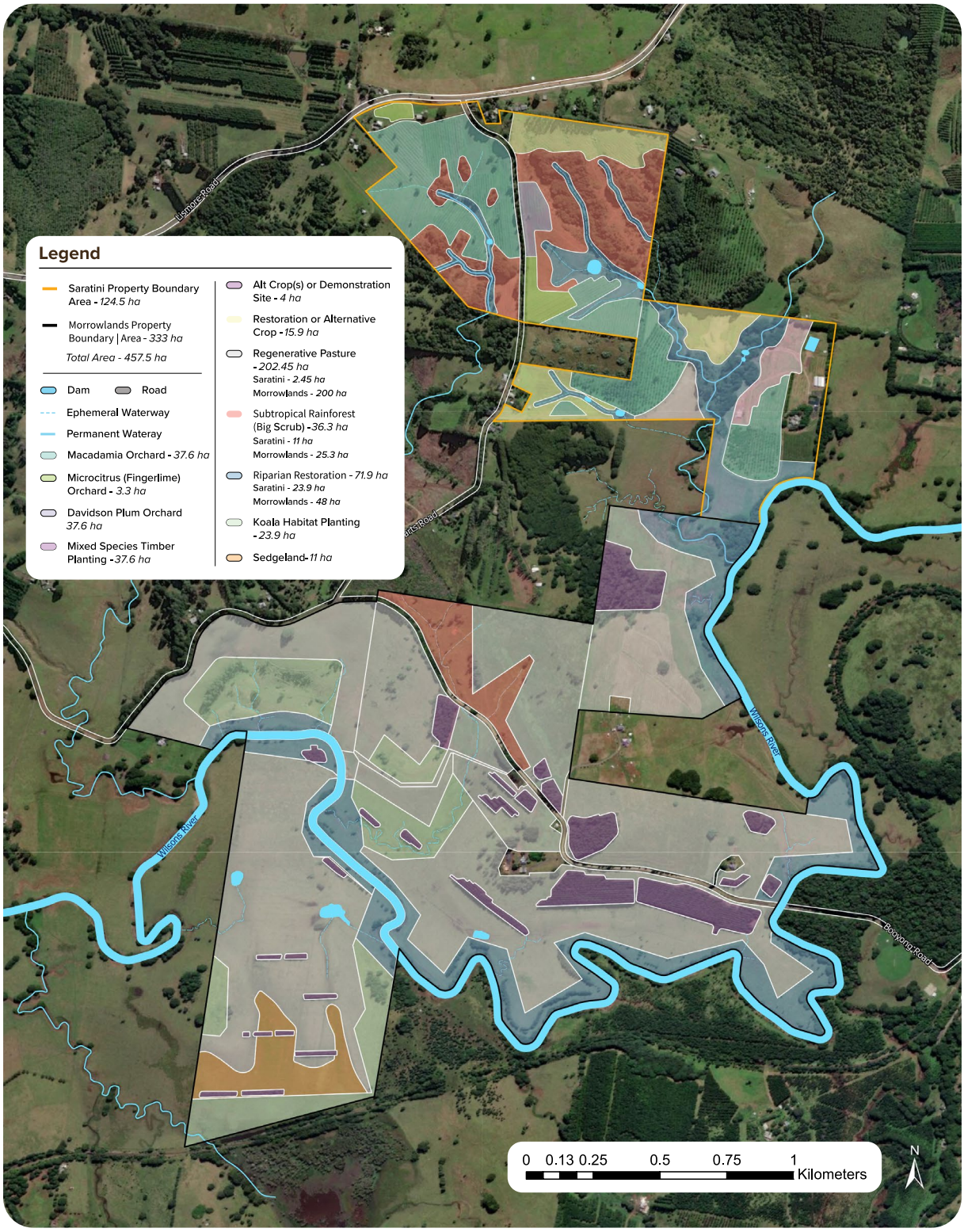
Background Information

Banyula-Saratini is a 370 ha farm outside of Clunes in Northern NSW. The farm runs a herd of 250 head of cattle. They produce macadamia nuts from 12 000 macadamia nut trees, finger limes from 2000 finger lime trees and Davidson plums from 2000 trees. The property also has mixed forestry plantings of *Eucalyptus grandis* (Flooded gum) and *Eucalyptus pilurlaris* (Blackbutt gum). A 25 ha Koala habitat regenerative project has been planted and the trees once mature will be used as carbon credits generating another source of income to the farm. The Wilsons River runs along some of the farm boundaries. It is here where river regeneration projects (riparian restoration) connect wildlife corridors to the Booyong nature reserve protecting the riparian zone and maintaining bushland corridors.

1. Using Overview map Banyula-Saratini/Morrowlands Farms on the following page, identify where the following areas are located and clearly highlight them on the map.
   a. macadamia orchards
   b. Koala habitat planting
   c. riparian restoration
2. Read the following article on **Macadamia Nut Production**, exploring page 1-2 and 6-7.
3. Using the information from this article, explain and provide three reasons for the current location of the macadamia nut orchards. Also explain why there are no orchards along the river banks.

Banyula-Saratini Farms - Production & Ecological Restoration Project

Overview Map - Banyula-Saratini/Morrowlands Farms



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WORKSHEET 3:

Farming Practices at Banyula Farm

What is a carbon credit?

One carbon credit is equal to one tonne of carbon dioxide equivalent (CO_2e) sequestered or avoided by the project.

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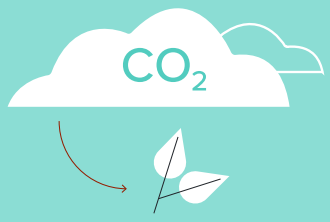
The carbon credits generated from ERF projects are called Australian Carbon Credit Units (ACCUs) and can be sold to individuals, organisations or governments wanting to offset their carbon emissions.



1 tonne

of CO_2e sequestered from the atmosphere

= 1 ACCU

https://www.energy.nsw.gov.au/business-and-industry/programs-grants-and-schemes/primary-industries-carbon-farming

Explain why you think the farm at Banyula could be considered as producing sustainable food and fibre. Use information from the video and the following articles: **Going nutty: the macadamia industry** and **The Booyong Reserve Story** to guide your answers.