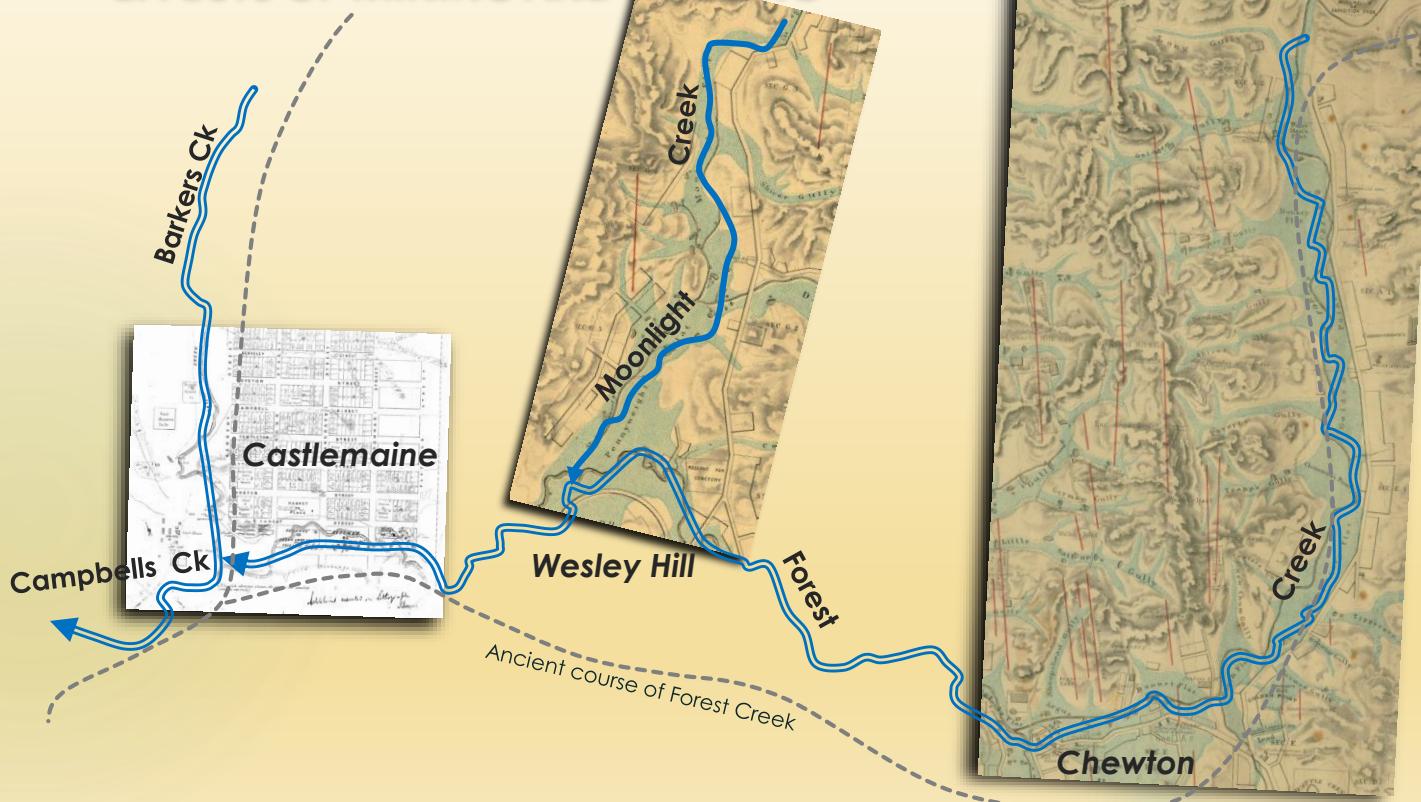
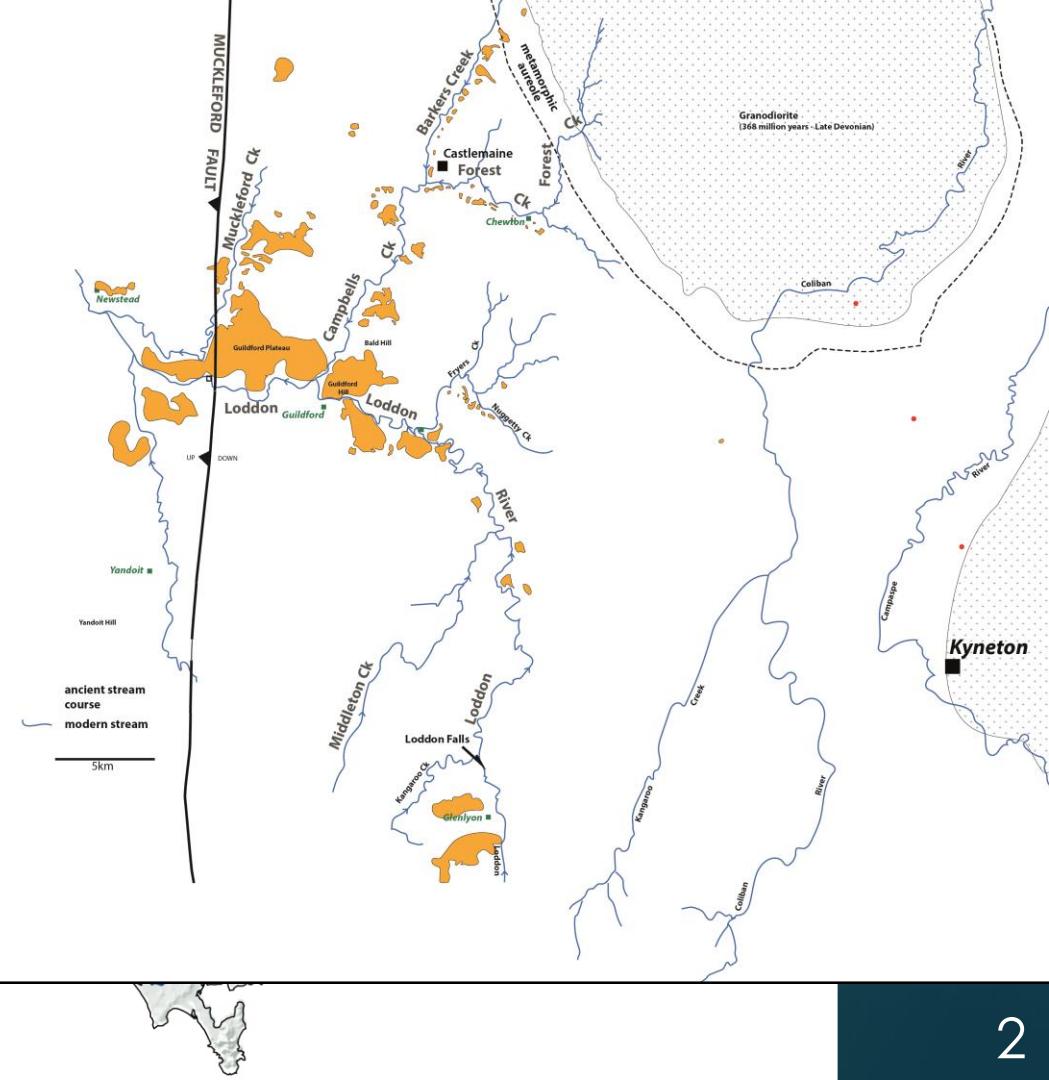
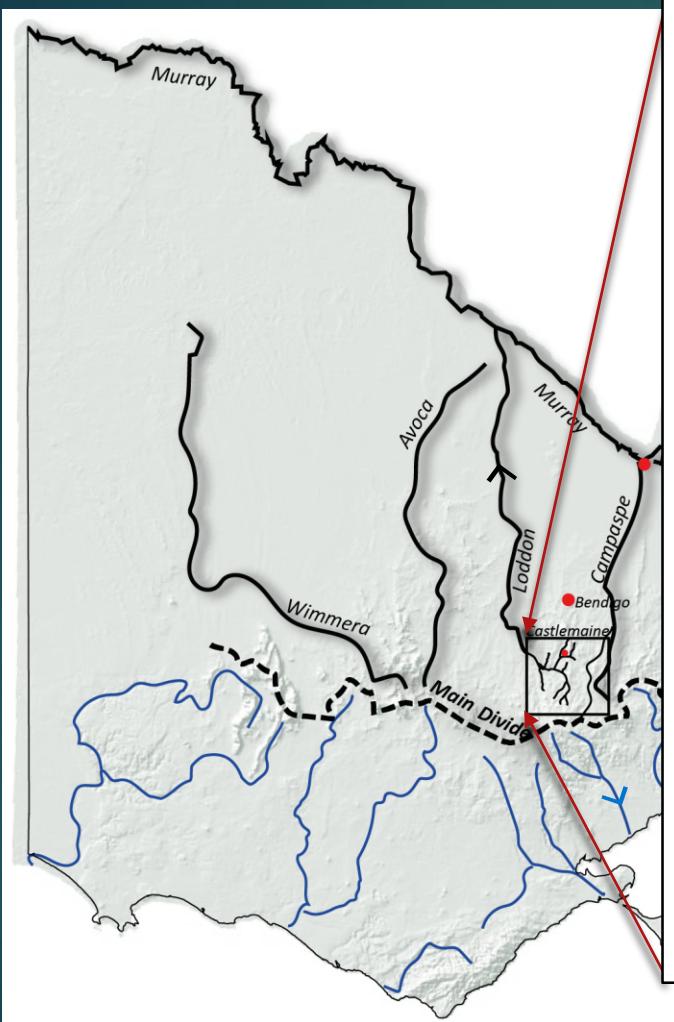


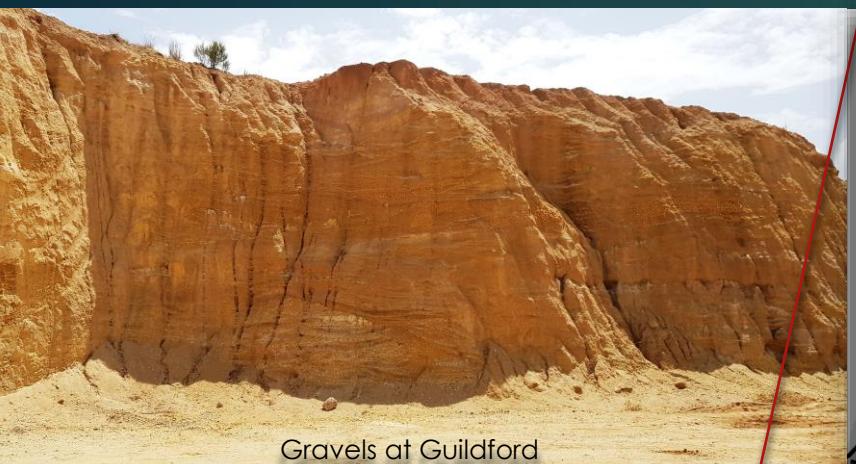
# FOREST AND MOONLIGHT CREEKS

## ANCIENT ORIGINS

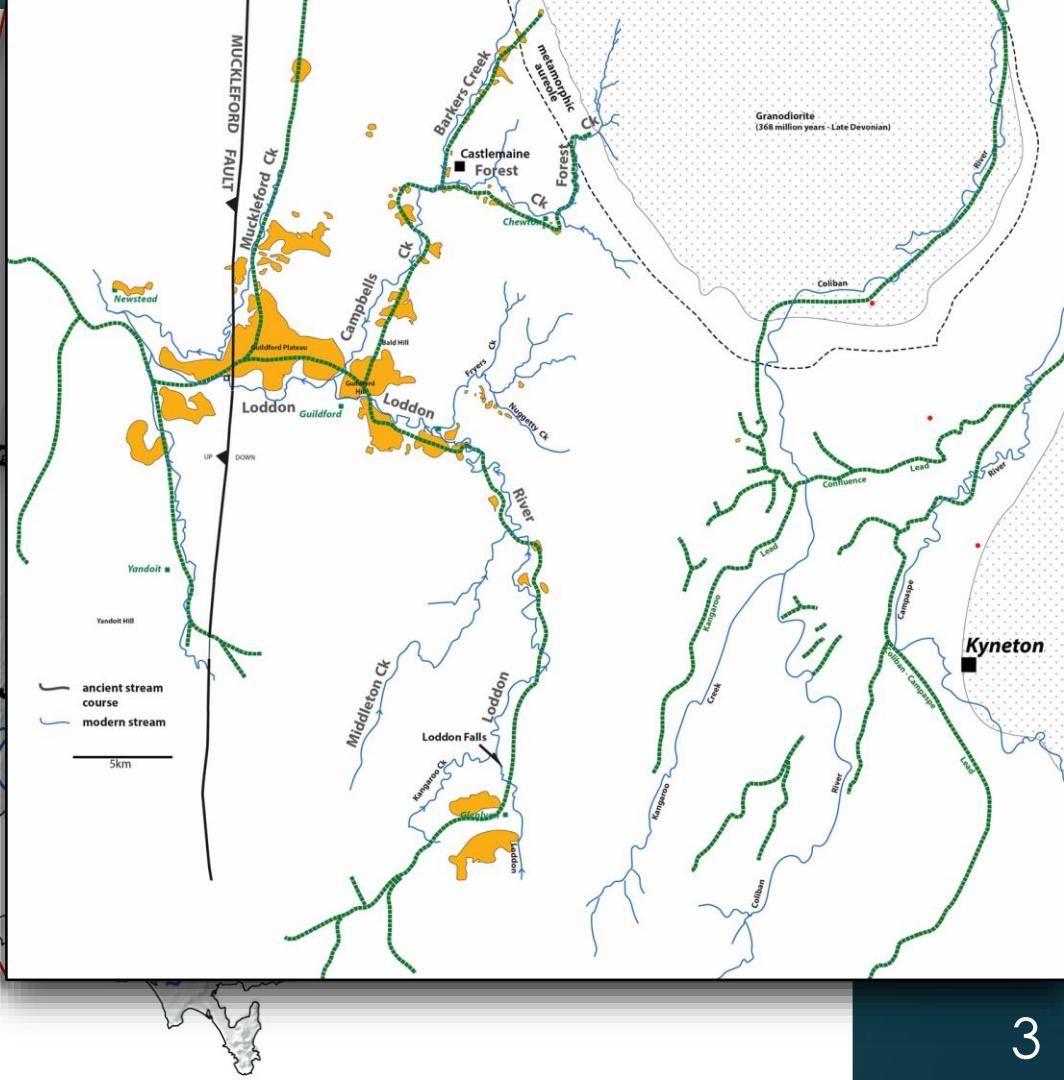
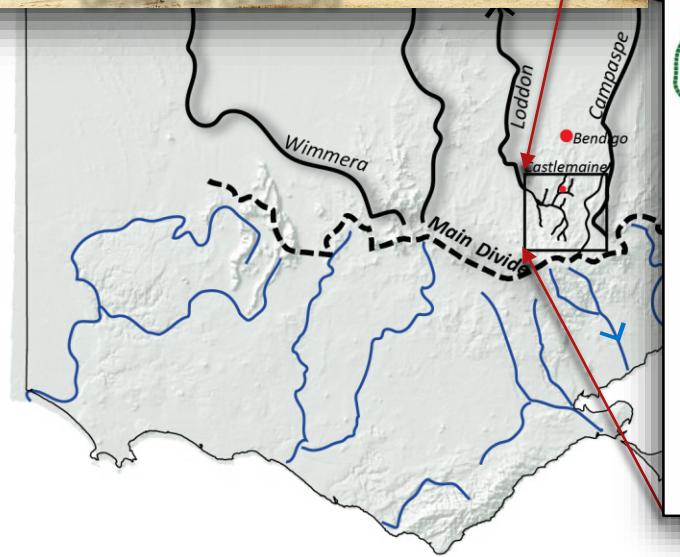
## EFFECTS OF MINING AND FARMING

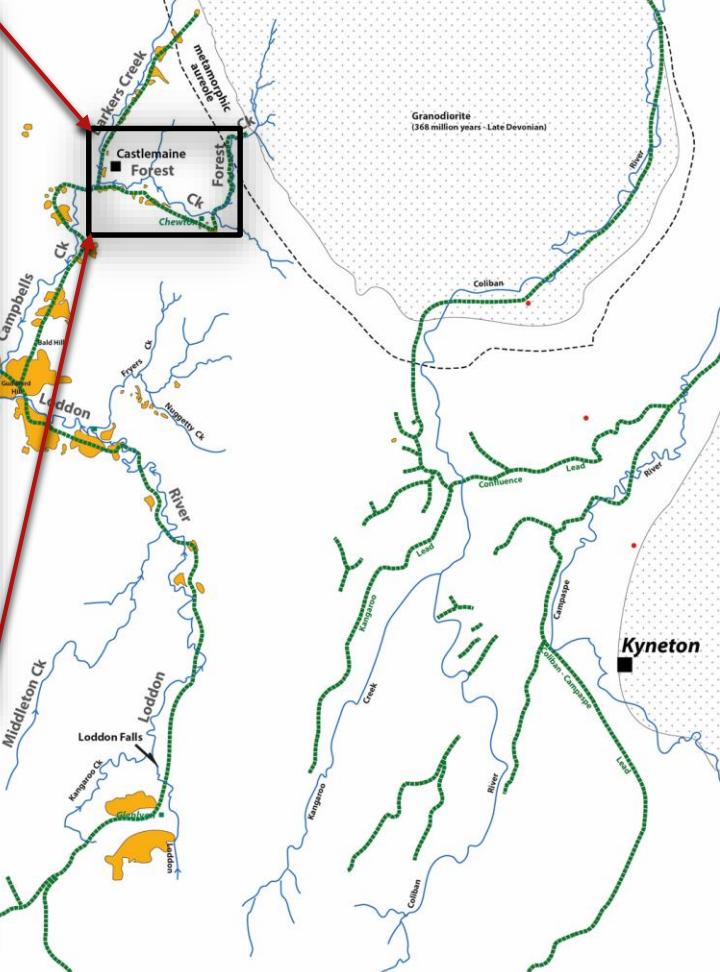
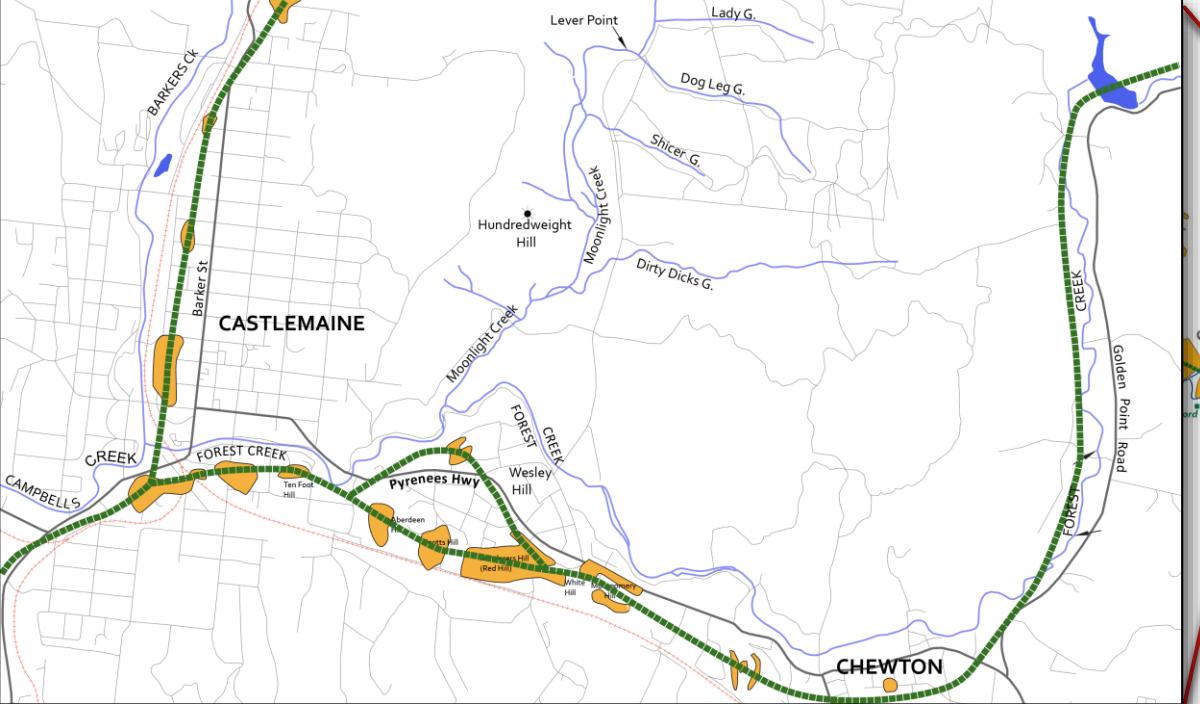






Gravels at Guildford





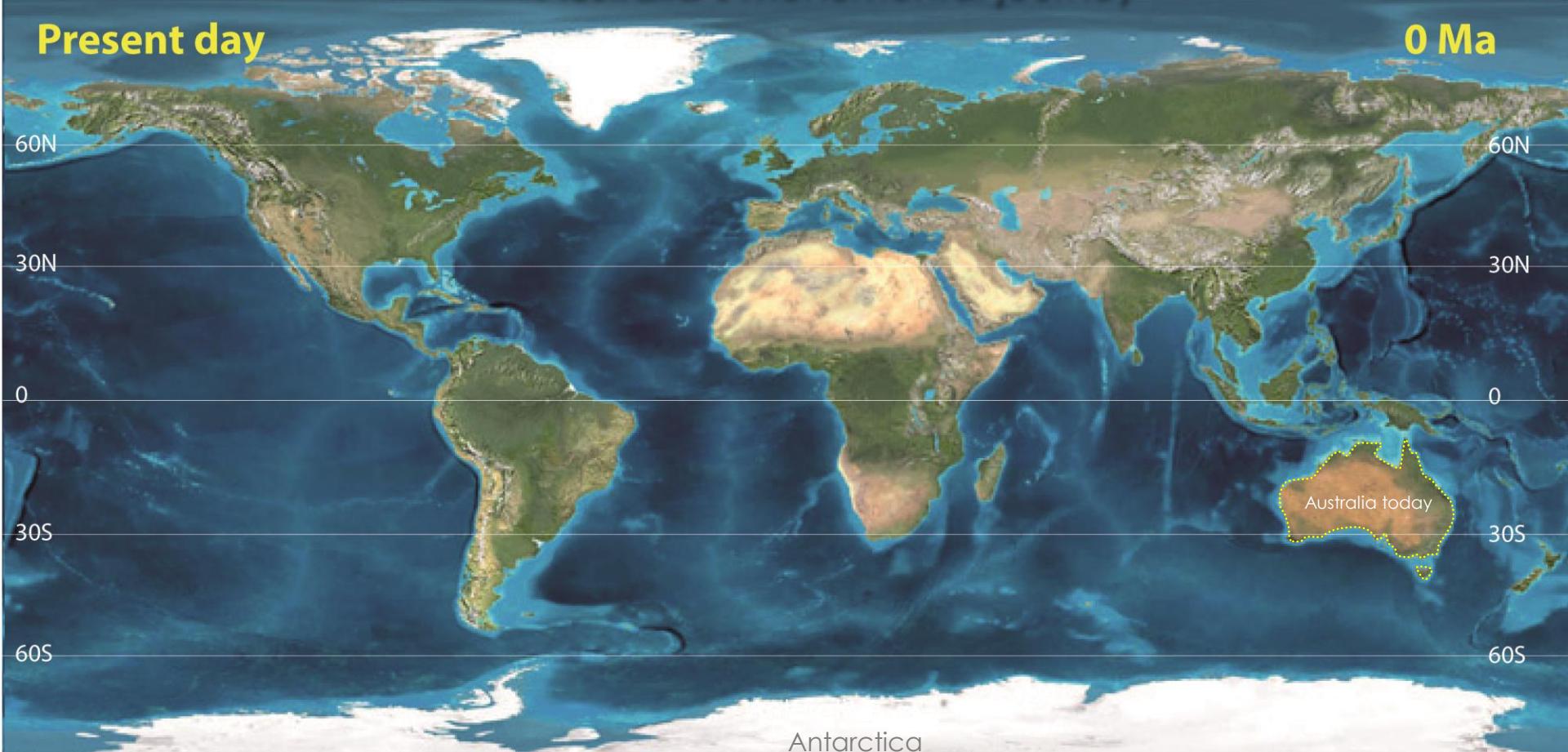


The older gravels in the ancestral Loddon R. contain very large cobbles (64-256 mm) and boulders (> 256 mm)

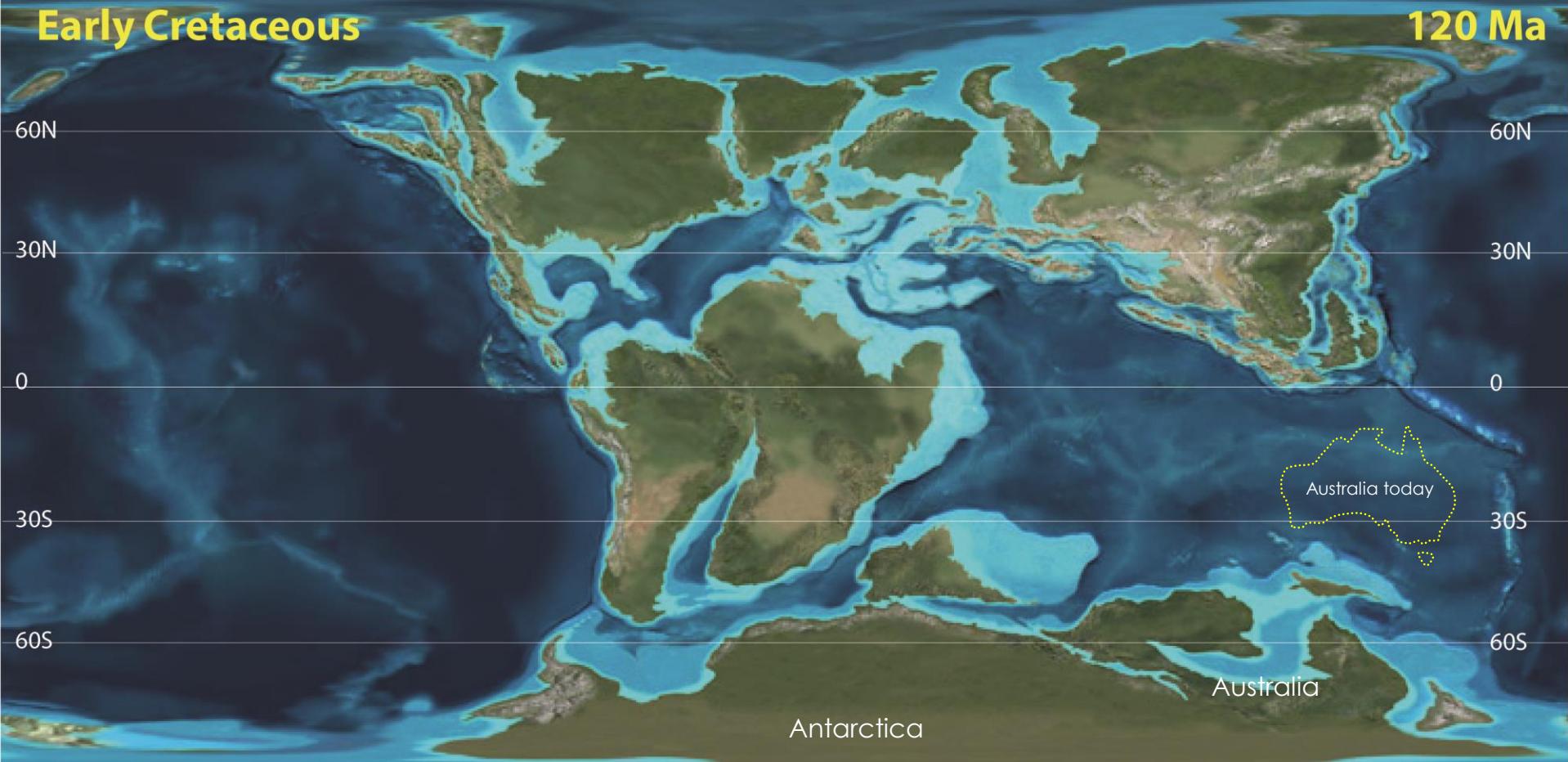
This indicates the ancient streams were very energetic with high water flows in a high rainfall environment

This is evidence of dramatic shifts in climate over the past ~60 million years

# Australia's monumental journey

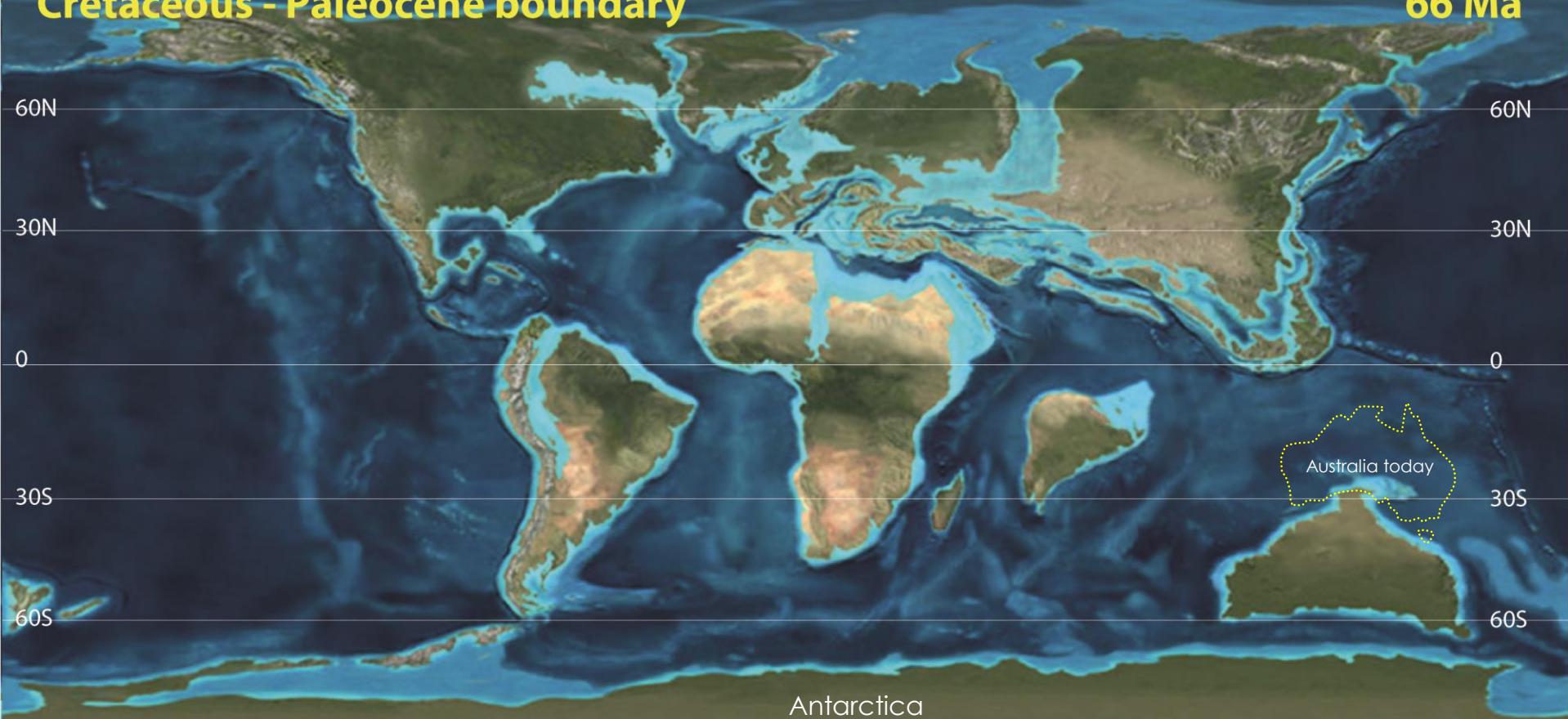


# Gondwana breaks apart



66 Ma

## Cretaceous - Paleocene boundary



## Eocene - Oligocene

35 Ma

60N

30N

0

30S

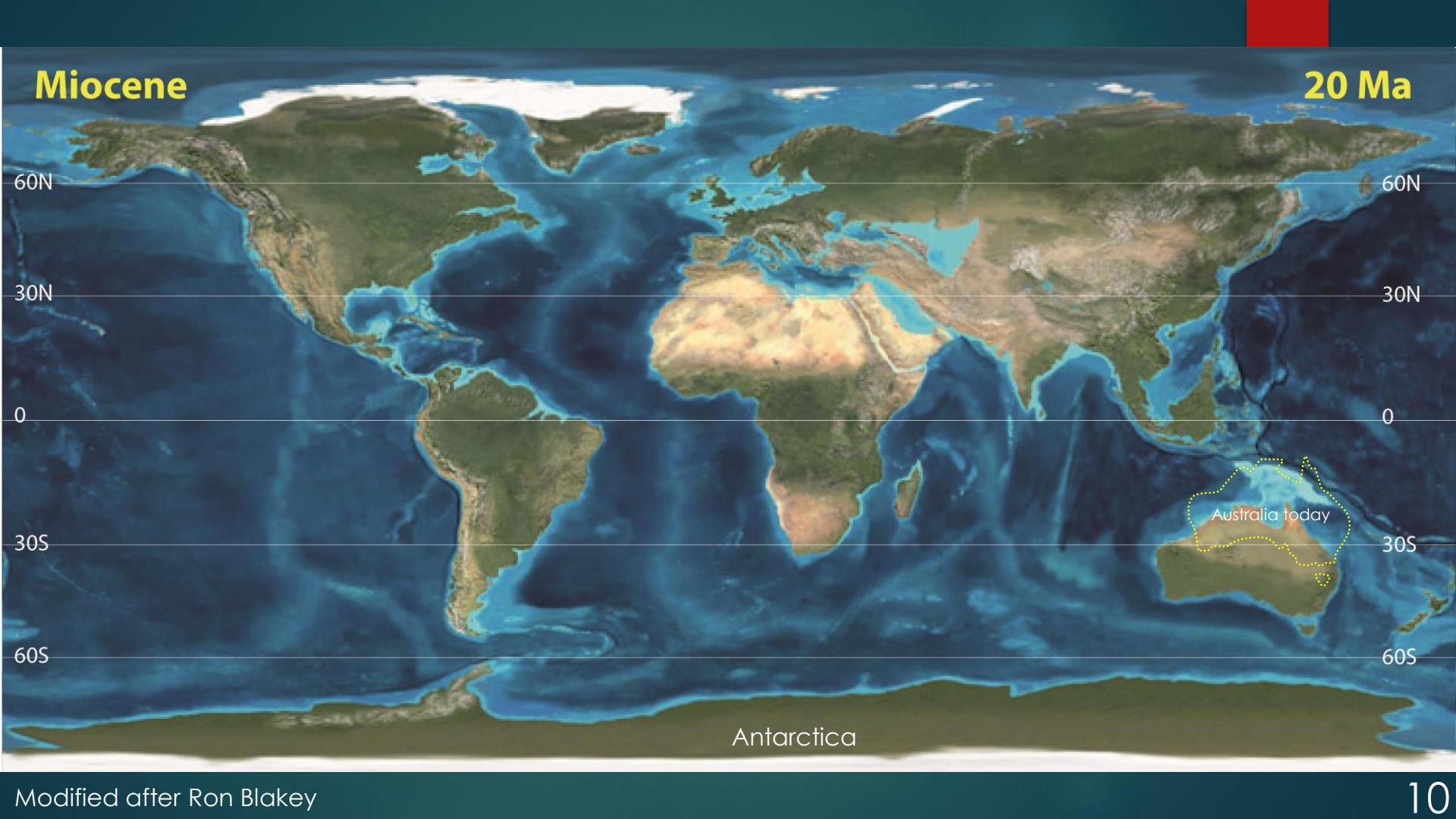
60S

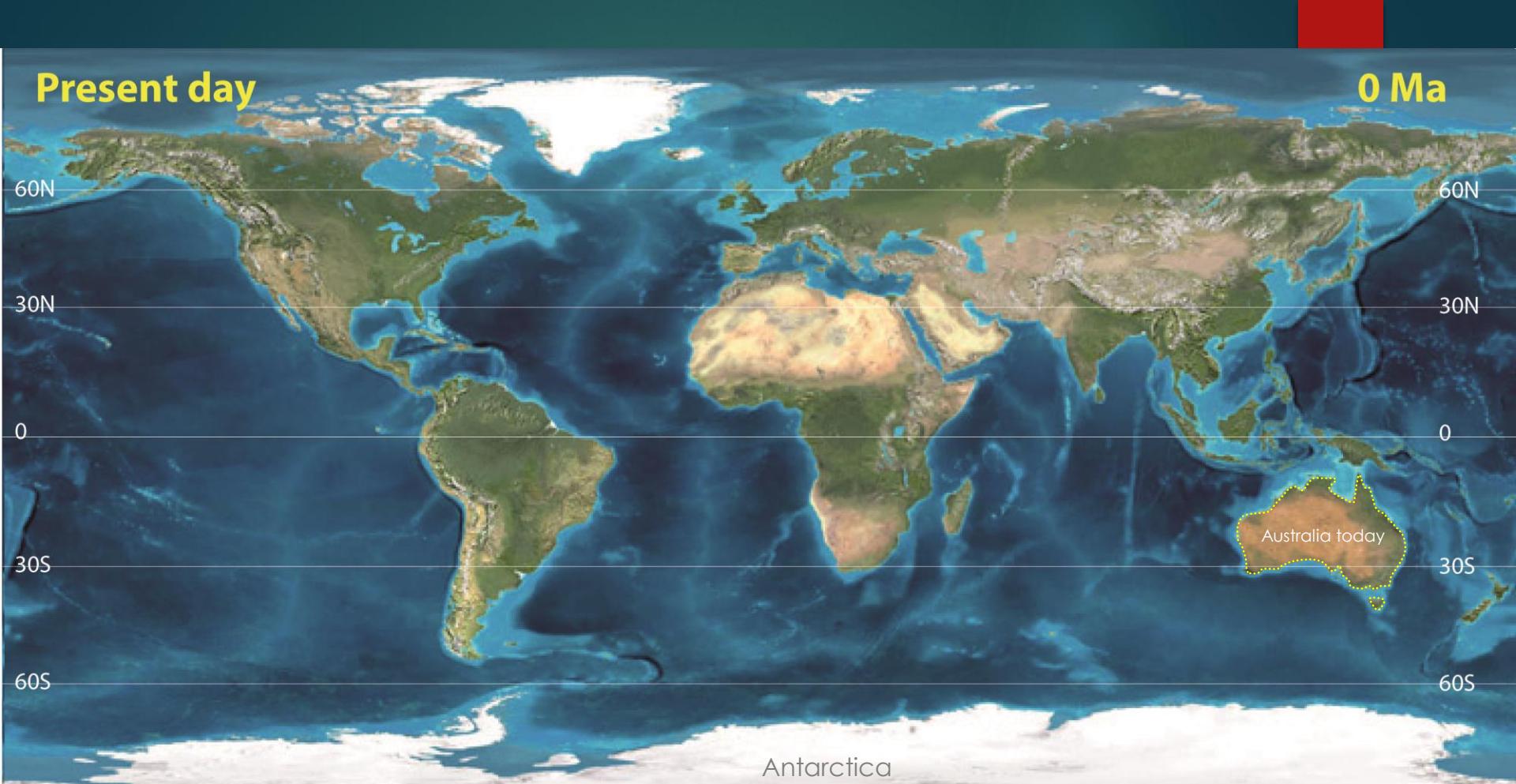
9

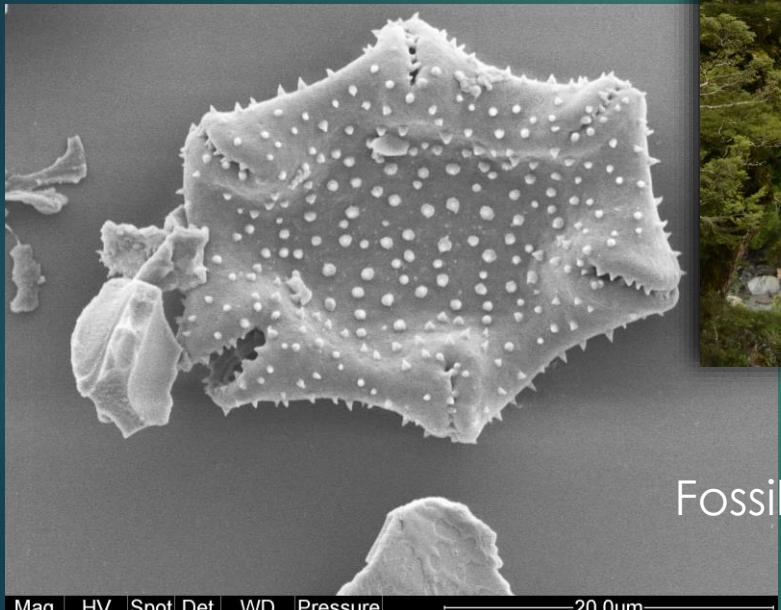
Separation complete about 30 – 33 Ma  
Antarctic Circumpolar Current (ACC) develops

Antarctica

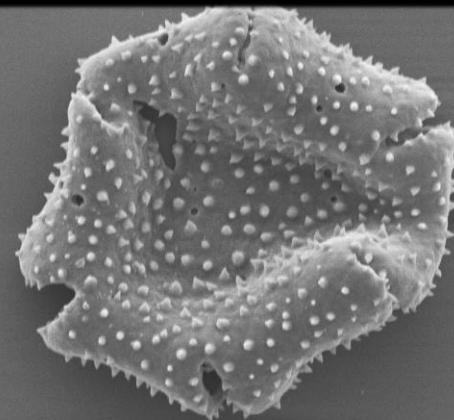
Australia today







Fossil pollens – 25 Ma

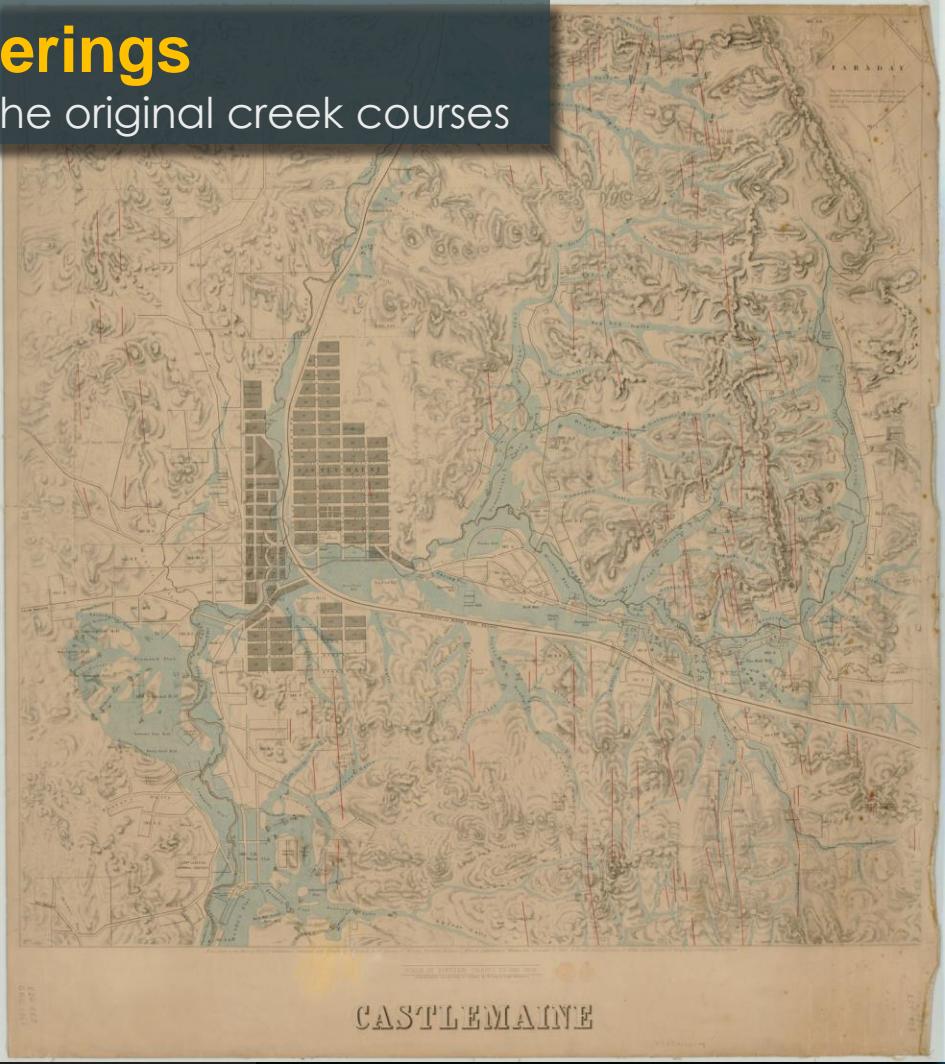
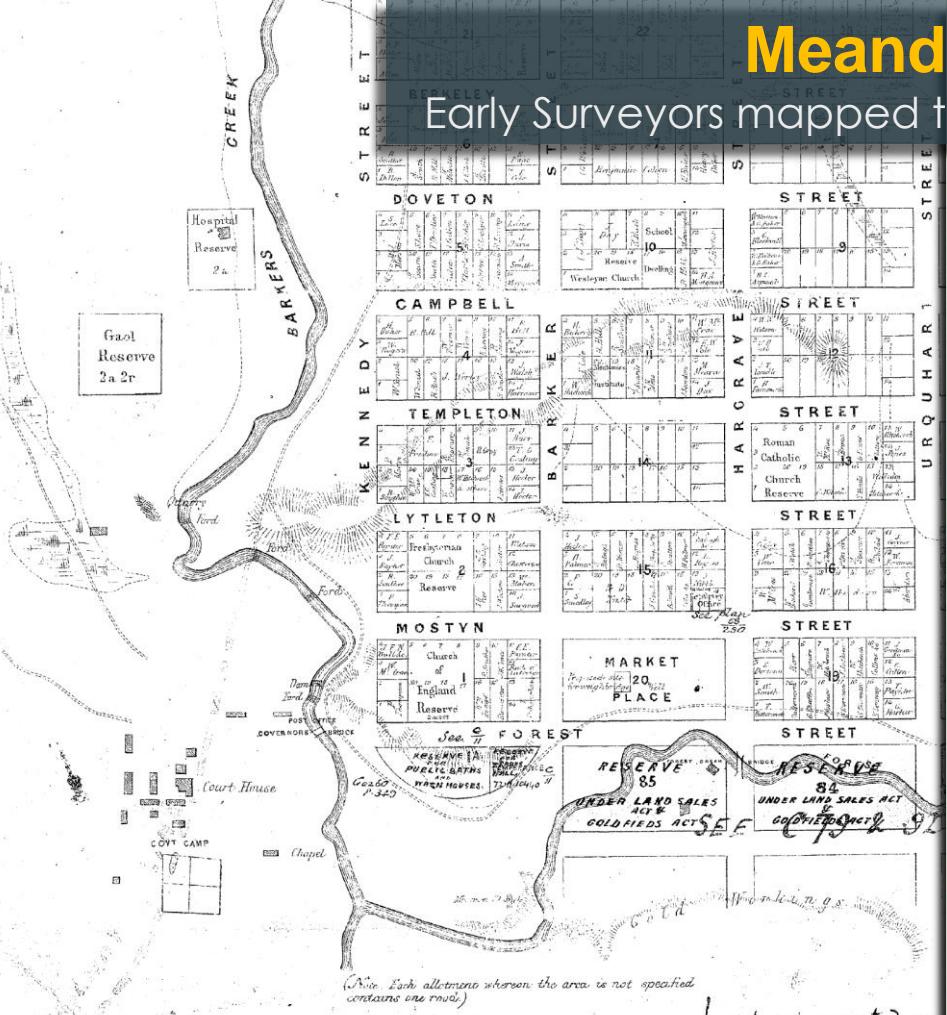


Nothofagus

All images: Dr Vera Korasidis

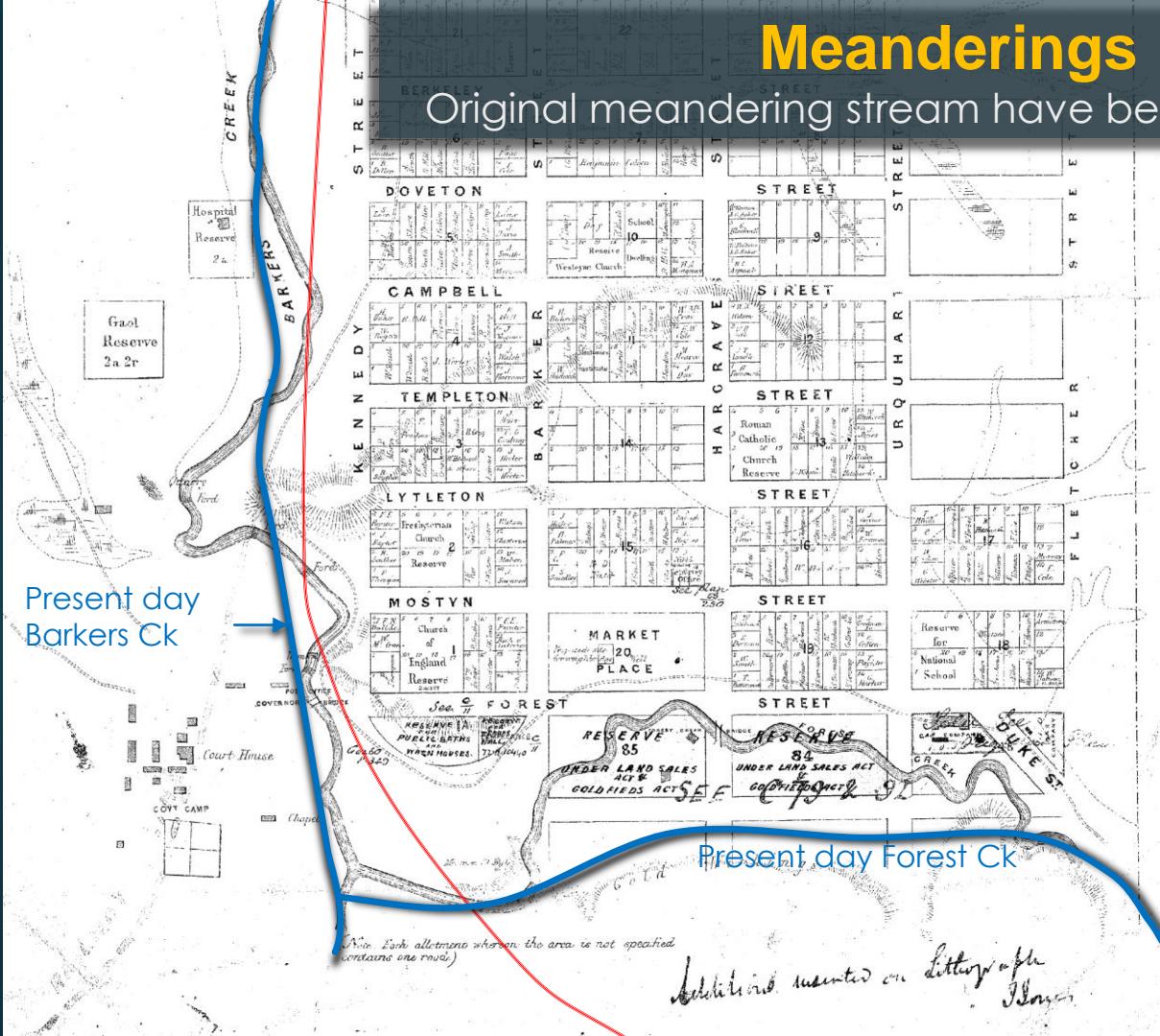
# Meanderings

Early Surveyors mapped the original creek courses



# Meanderings

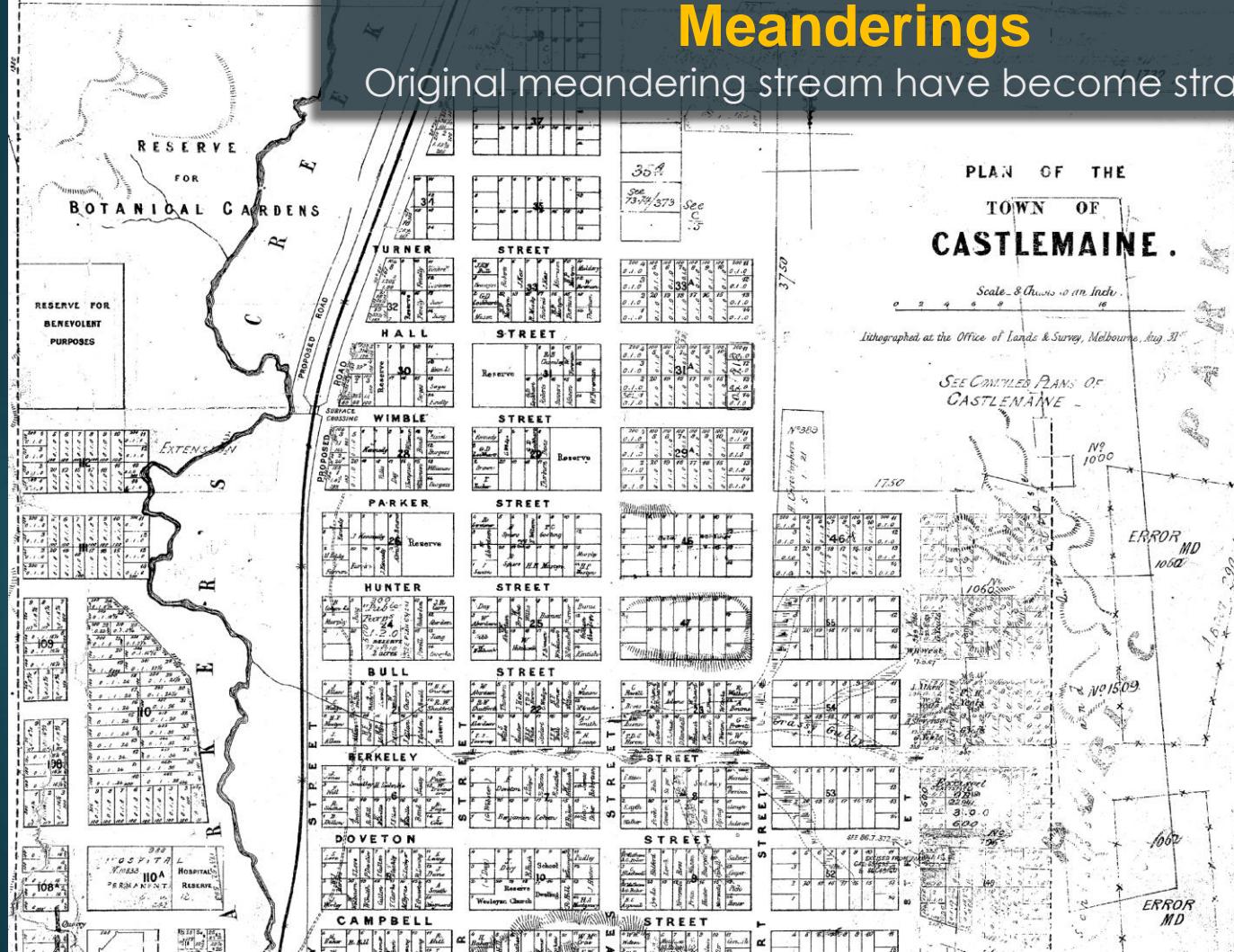
Original meandering stream have become straighter



Putaway plan C9 August 1857

# Meanderings

Original meandering stream have become straighter

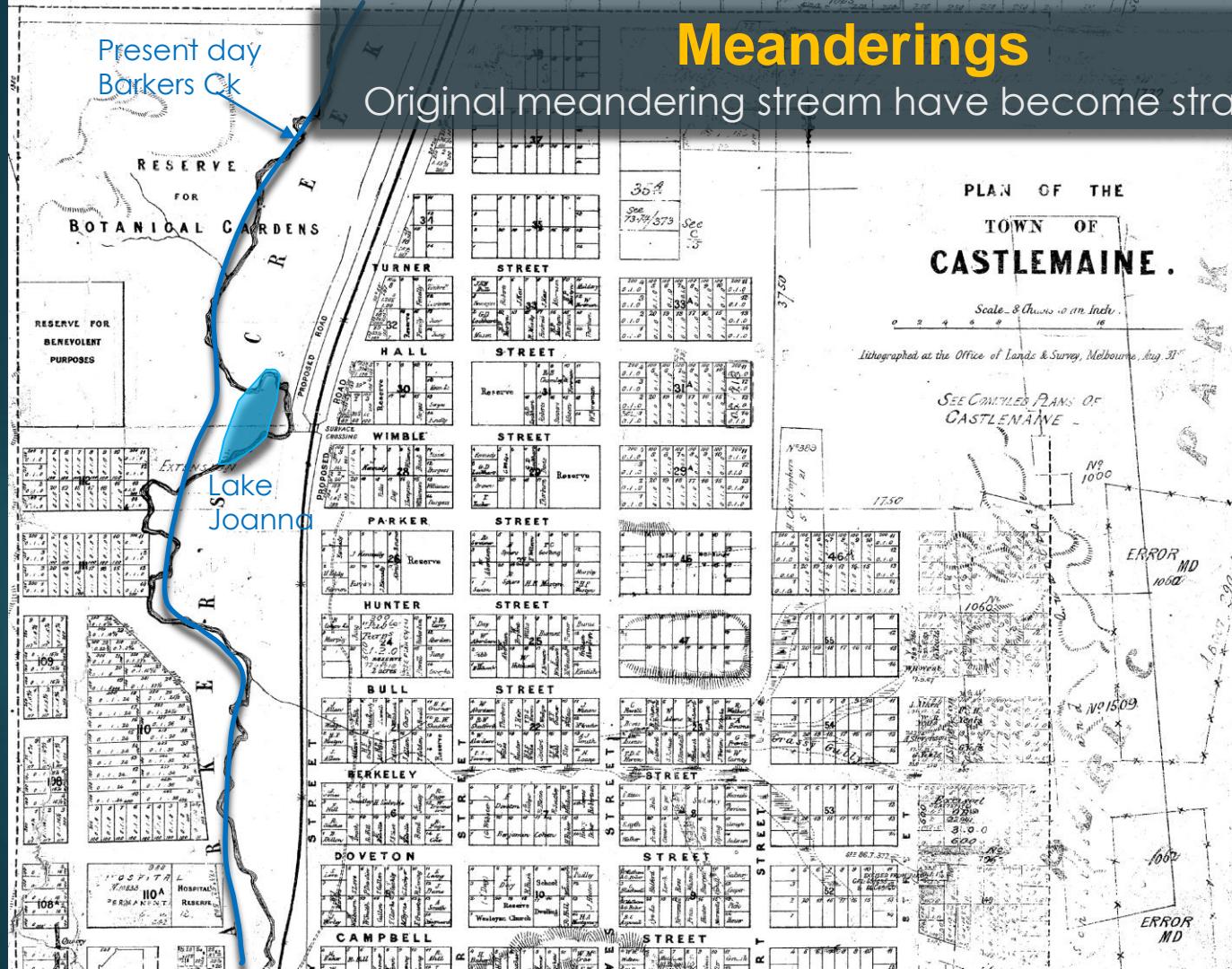


Putaway plan C100 August 1861

# Meanderings

## Present day Barkers Qk

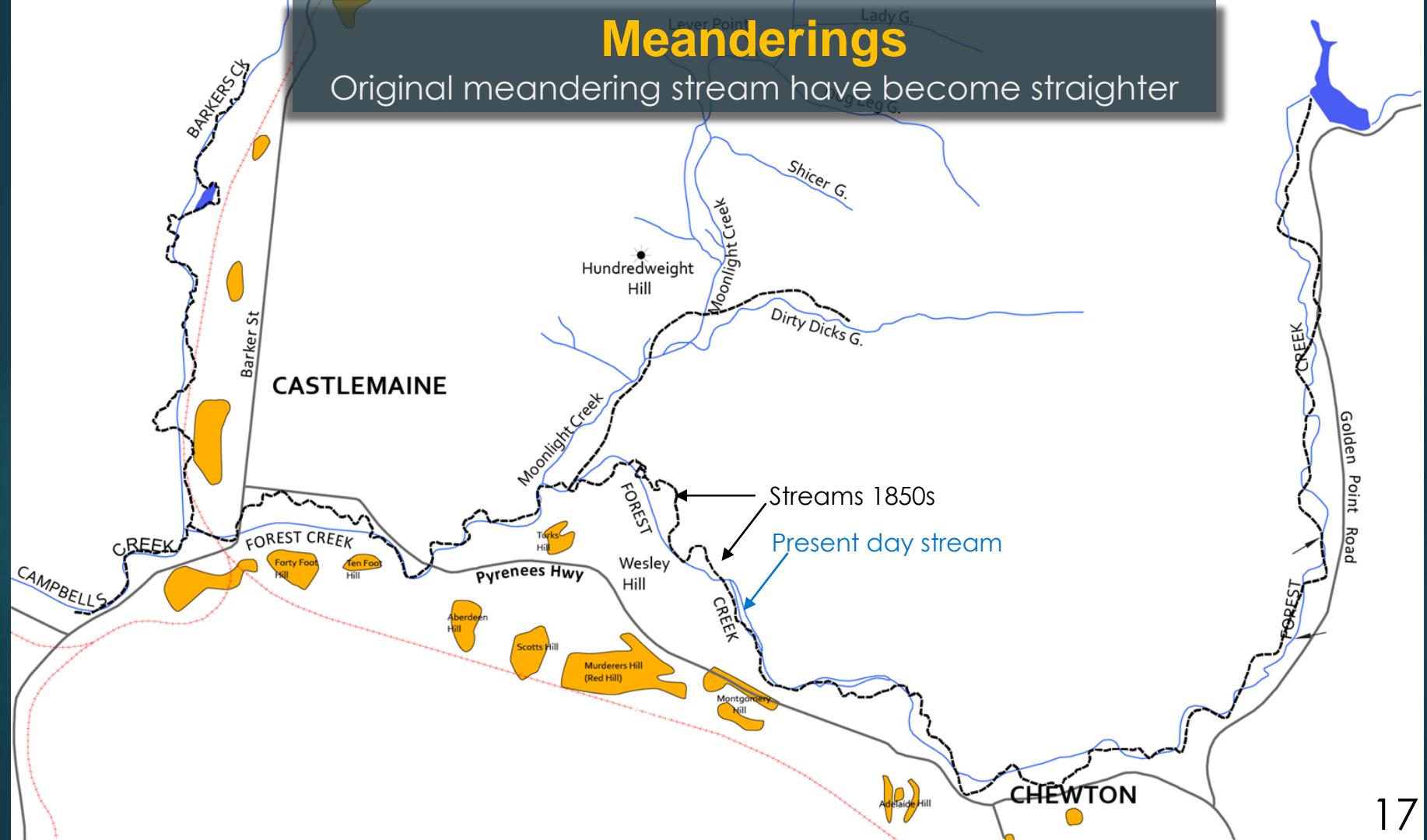
Original meandering stream have become straighter



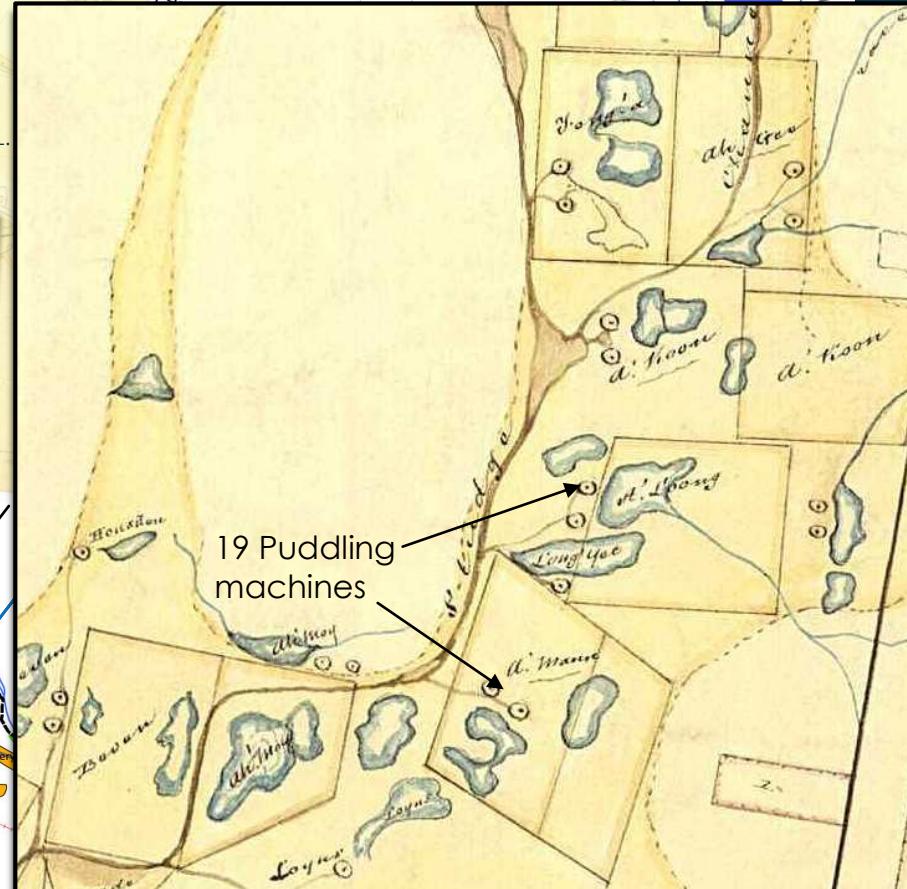
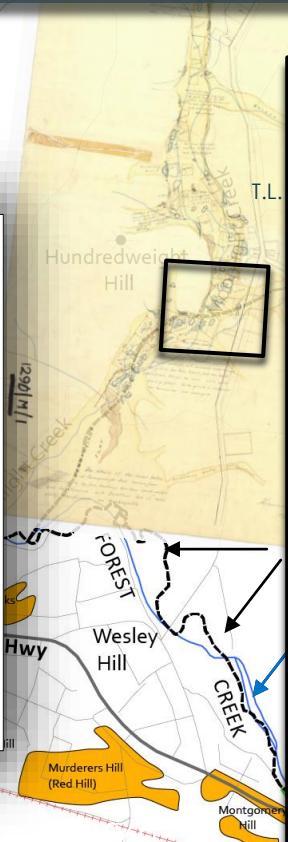
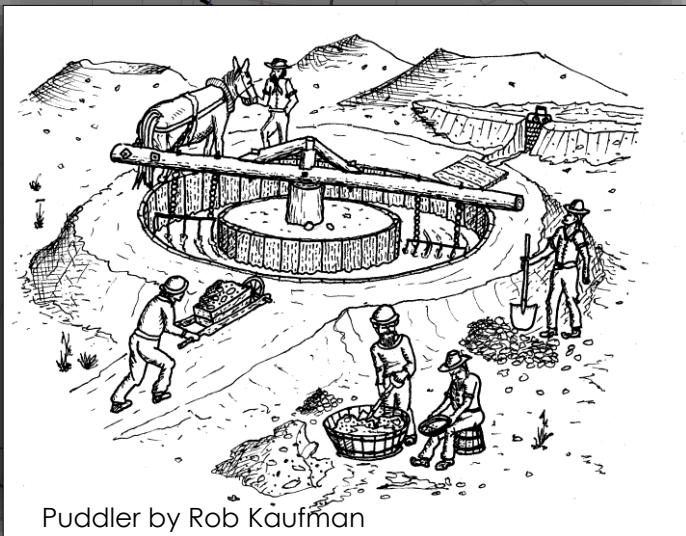
Putaway plan C100 August 1861

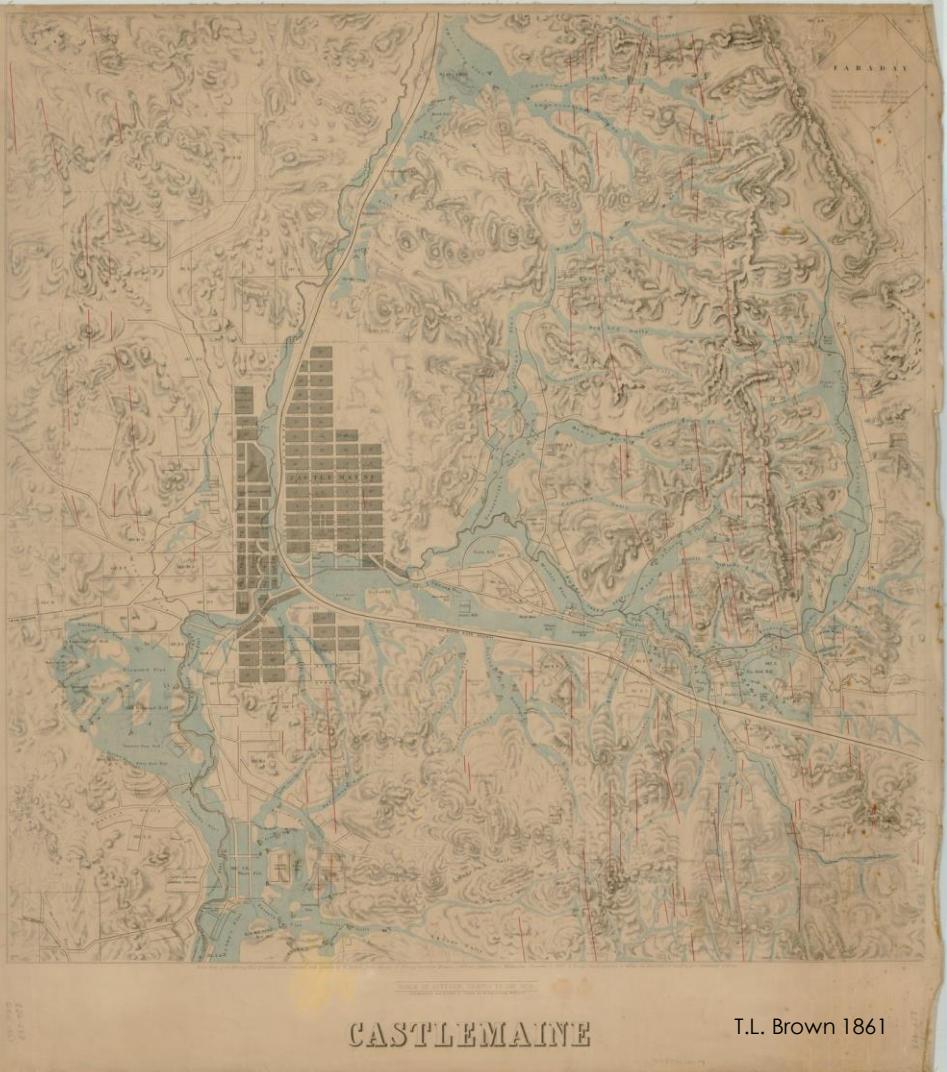
# Meanderings

Original meandering stream have become straighter



# Effects of early alluvial mining





## SLUDGE

*“..the injury caused by this monster nuisance of the gold-fields is too patent to be doubted”*

*“There are 360 puddlers whose sludge flows into the main channel of Forest Creek”*

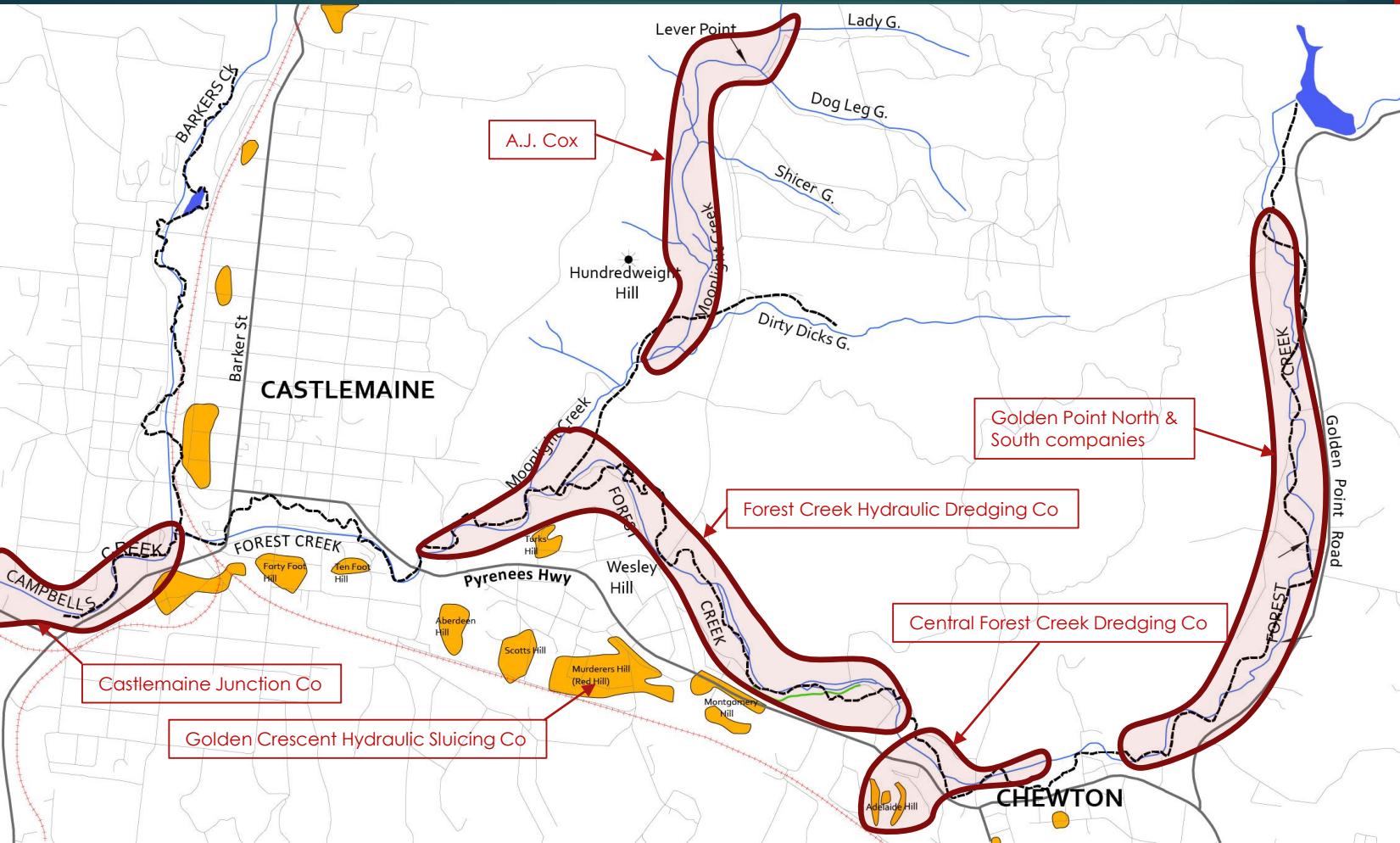
Mt Alexander Mail 16-4-1860

### THE MINING BOARD AND THE SLUDGE.

We hope we shall not be considered impertinently intrusive by the gentlemen of the Mining Board, if we venture to direct their attention to the resolutions recently arrived at by the puddlers of Forest Creek. That important section of our mining community profess their readiness to contribute towards the maintenance of a sludge channel, but it is impossible to give effect to their good intentions without the sanction of the local mining parliament. There should be no difficulty in obtaining the desired by-law, to impose fees on all puddlers whose sludge flows into the main creek—for the injury caused by this monster nuisance of the gold-fields is too patent to be doubted; but if we are correctly informed there is a disposition on the part of some of the members of the Mining Board, who represent other divisions of the district, to disregard the wishes of the members for Castlemaine. We can easily understand that Mr Gatty Jones may be sceptical on *sludge*, St. Andrew's being yet untroubled by it. Alluvial mining being altogether suspended on Tarrangower, Messrs. Ramsay and Braddon are perhaps disposed to pooh pooh the complaints that come from other quarters, and we do not expect active sympathy for the Forest Creek puddlers, from the representatives of Daylesford. But we remind those gentlemen that they are not sent into the Board to legislate merely for the divisions for which they have been returned. The mining interests of the whole district are committed to them, and where they find an evil capable of amelioration, it is their duty to legislate for it, notwithstanding that such legislation may not be a matter of special interest to the divisions they respectively represent. There are three hundred and sixty puddlers whose sludge flows into the main channel of Forest Creek. They are anxious to make some arrangement by which their sludge may be carried off and

Mt Alexander Mail 16-4-1860

# Sluice and Dredge mining 1898 -1940s



## Hydraulic Sluicing – gravitational system

PLATE XIX.

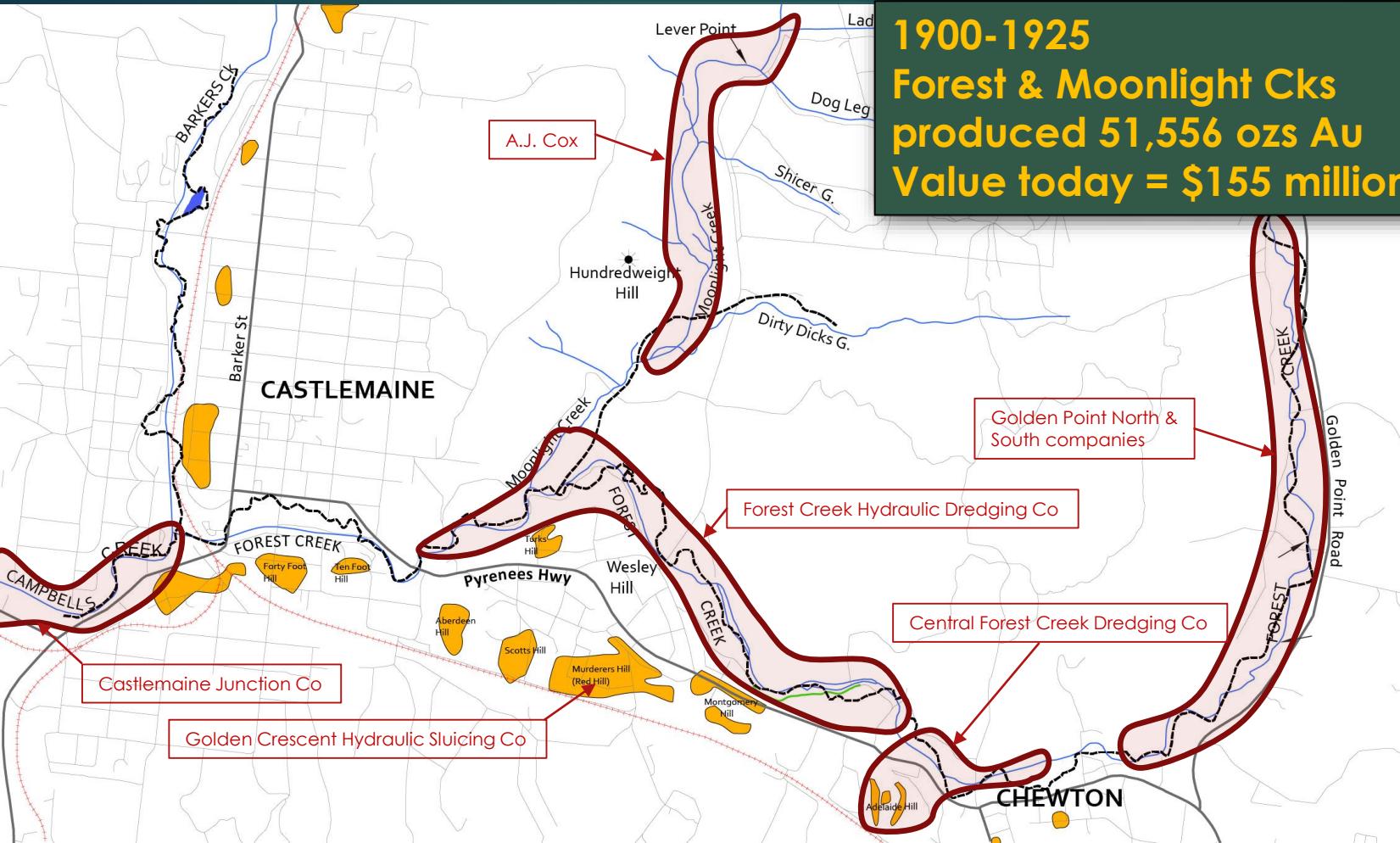


Cox's Jet Elevator plant and workings at Moonlight Flat: typical of many jet plants working in the gullies around Castlemaine district. The nozzle pressure of this plant is obtained from the Coliban Water Supply, the head pressure being about 100 feet, and from three to four millions of gallons of water are used weekly when in full work. Ground treated ranges from 9 to 20 feet deep, and about 7,000 cubic yards of material are treated weekly.

## Hydraulic Sluicing – centrifugal pump system

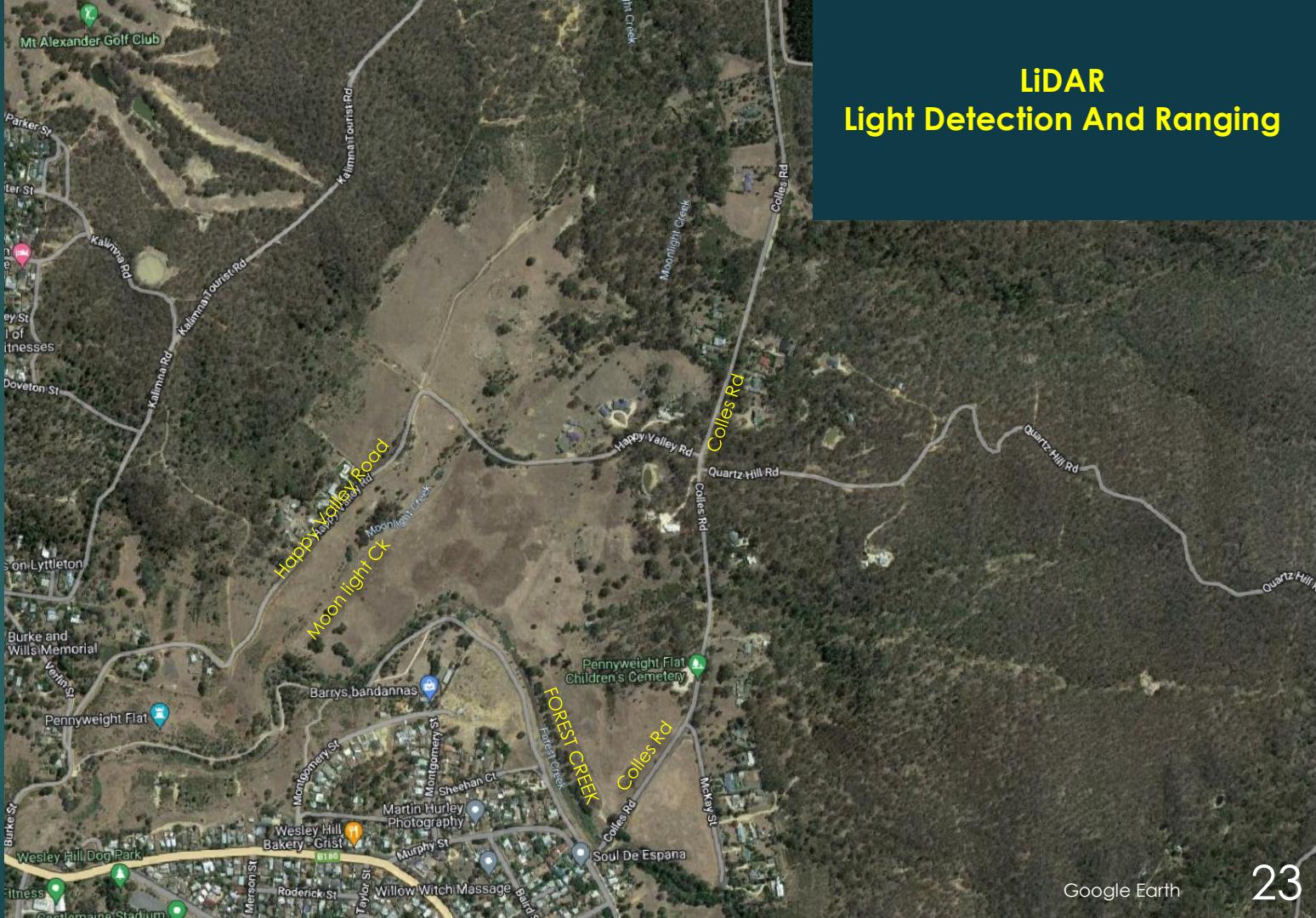


# Sluice and Dredge mining 1898 -1940s



**1900-1925**  
**Forest & Moonlight Cks**  
**produced 51,556 ozs Au**  
**Value today = \$155 million**

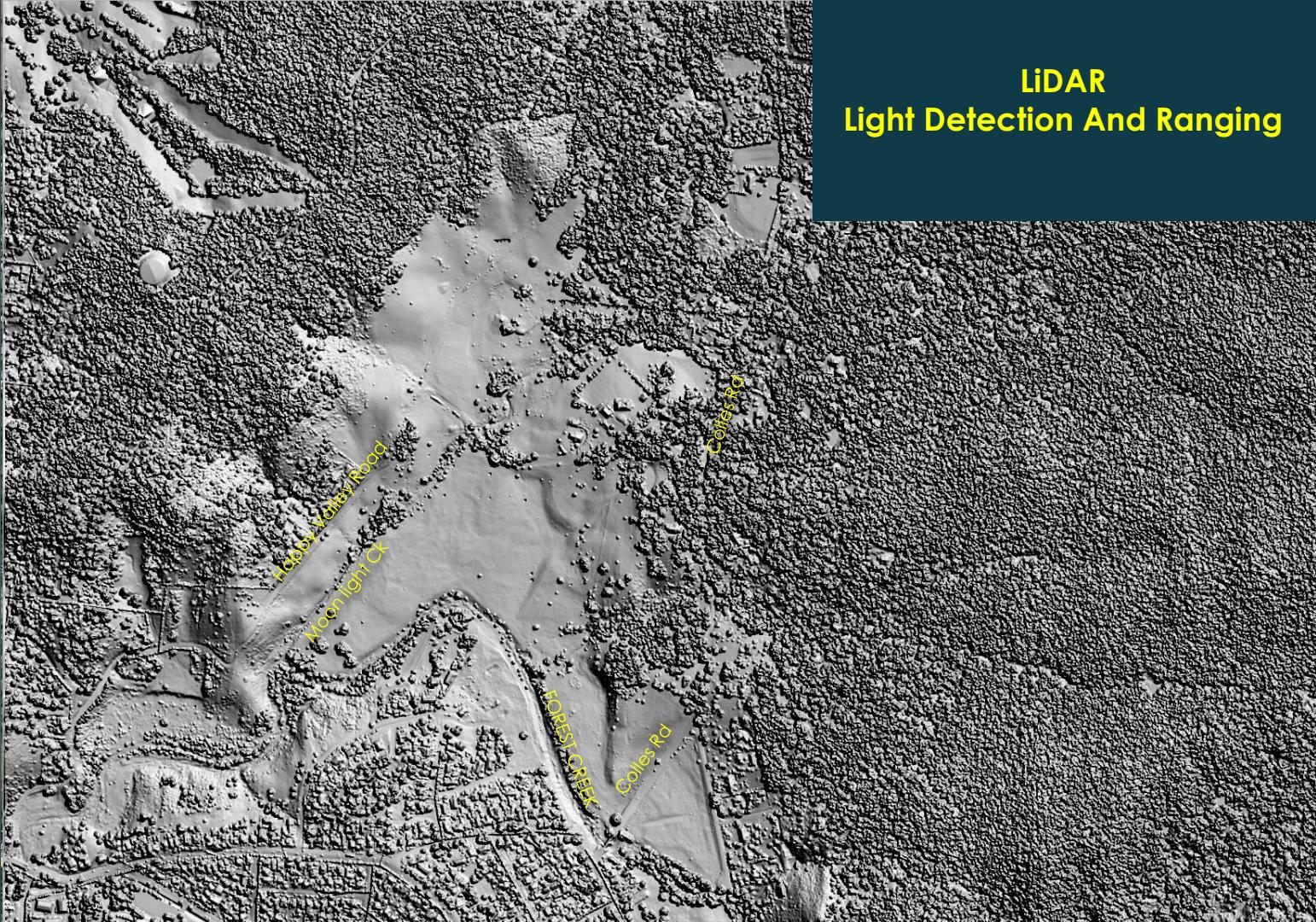
## LiDAR Light Detection And Ranging



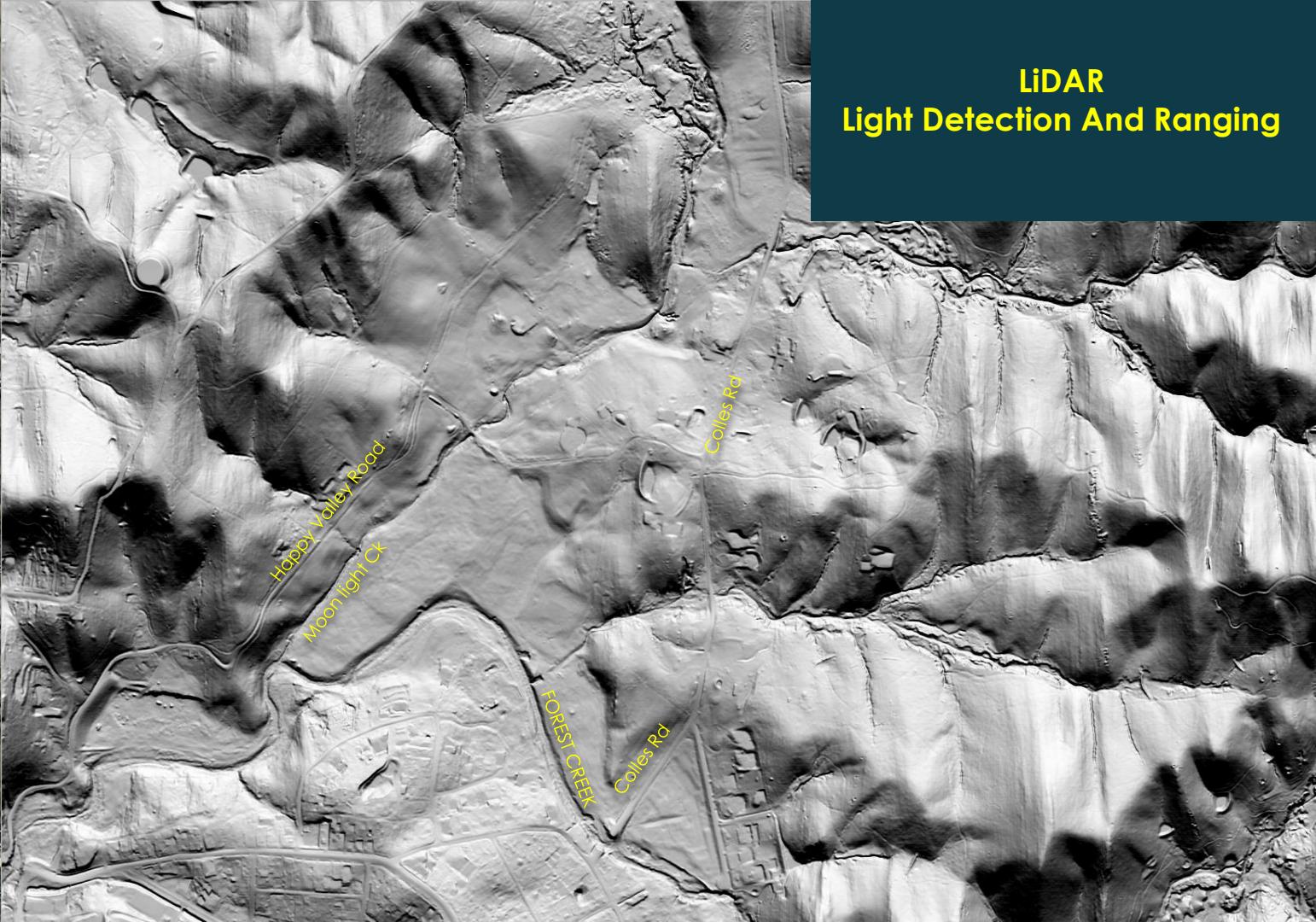
# LiDAR

## Light Detection And Ranging

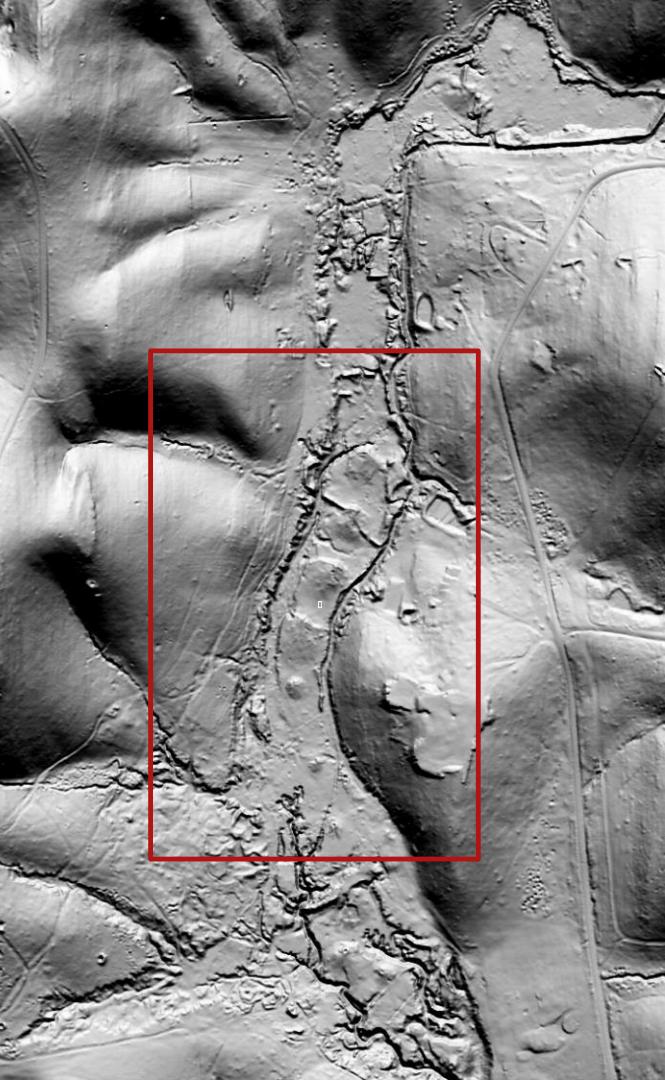
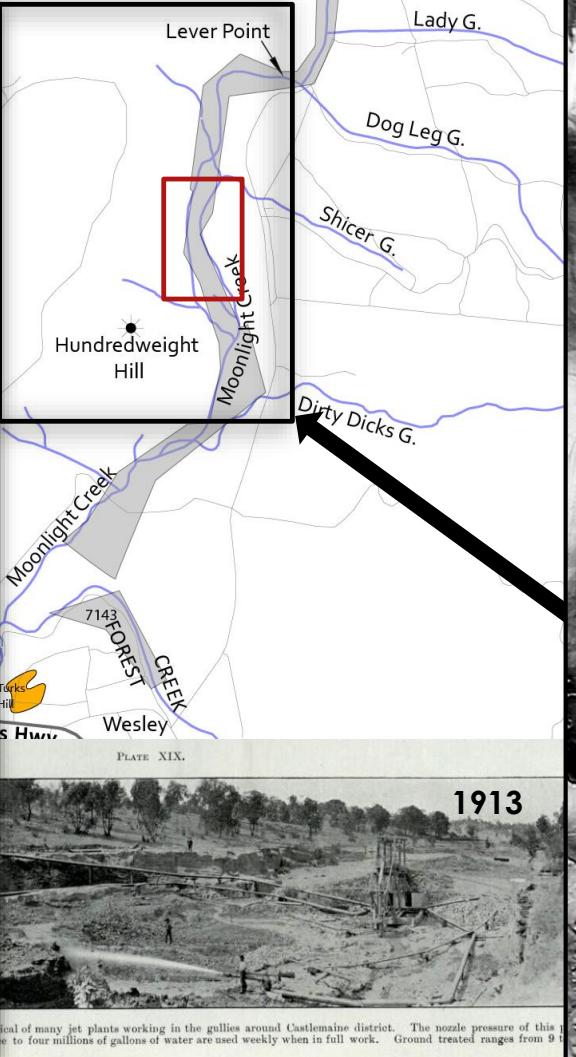
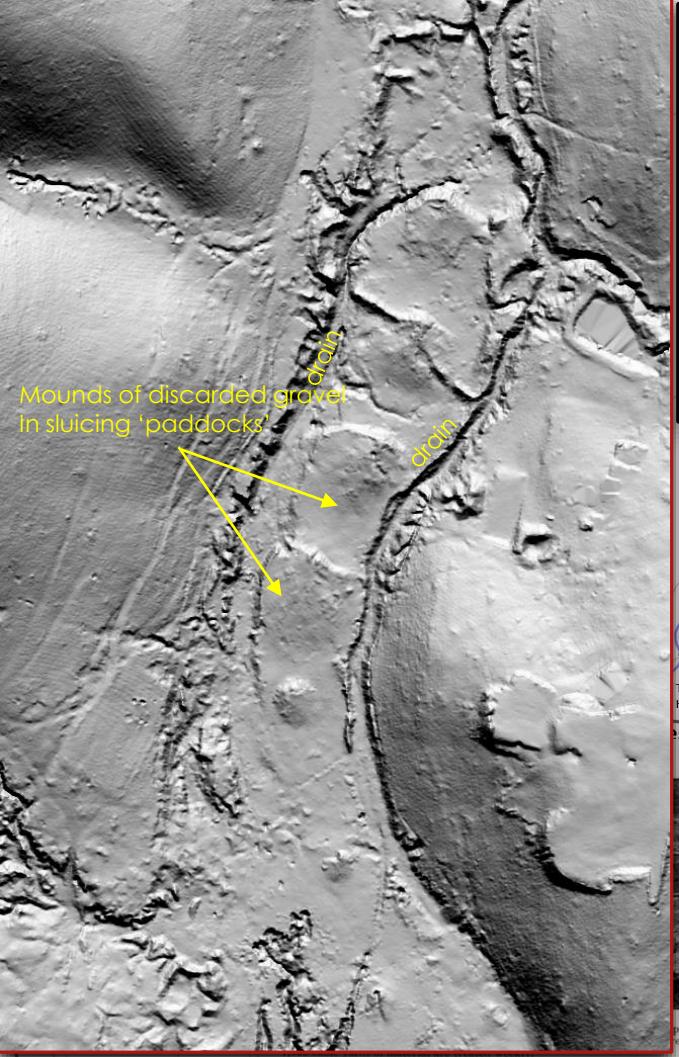
Lidar  
Geoscience Australia  
'Elvis website'

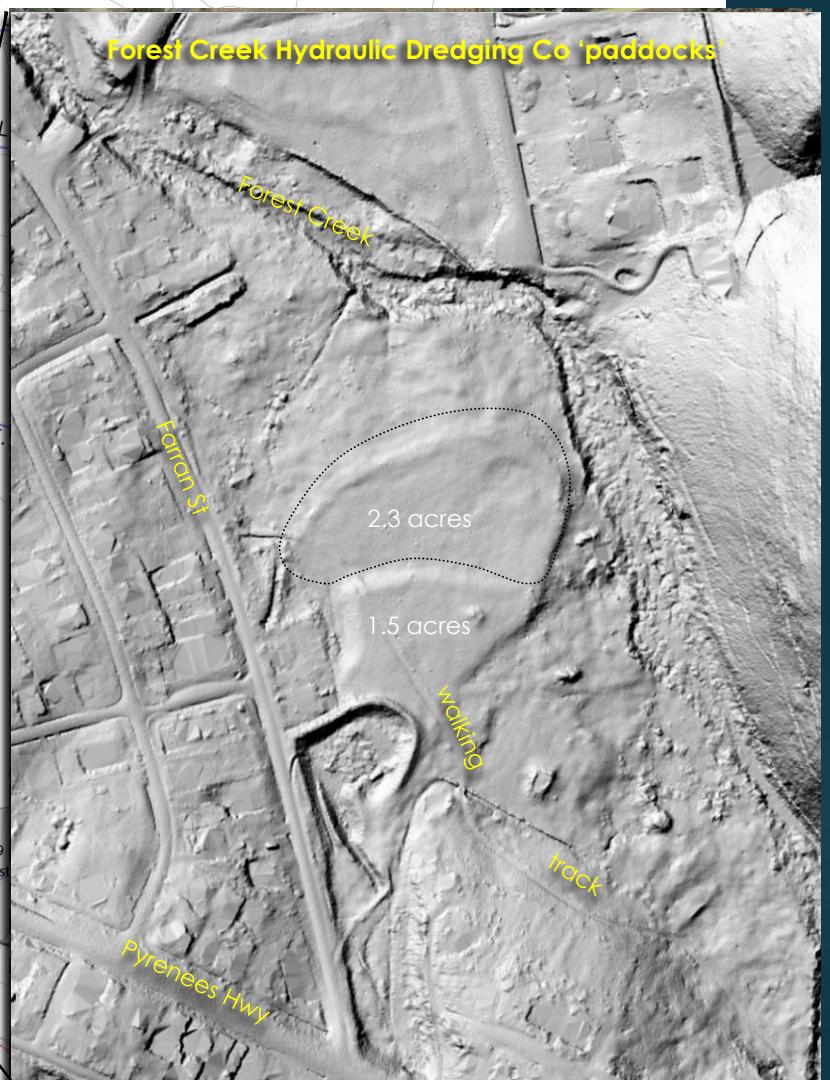
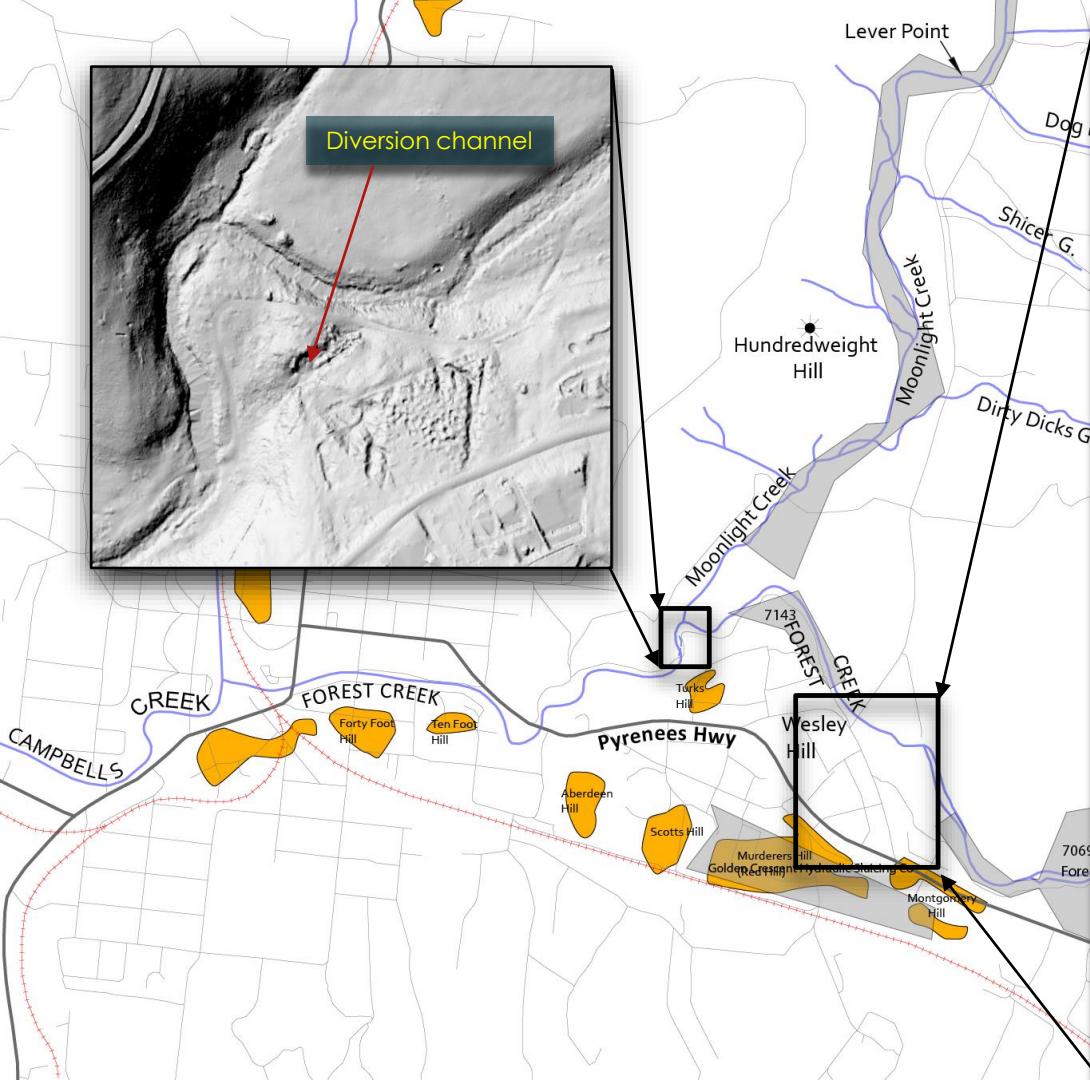


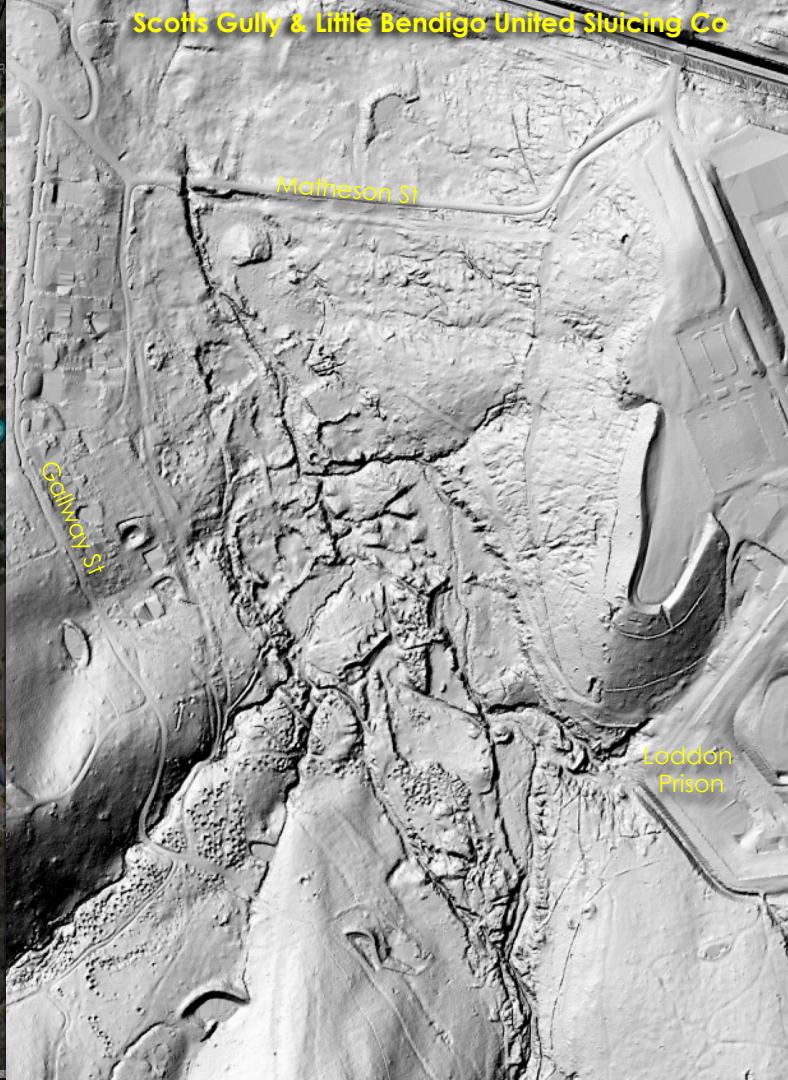
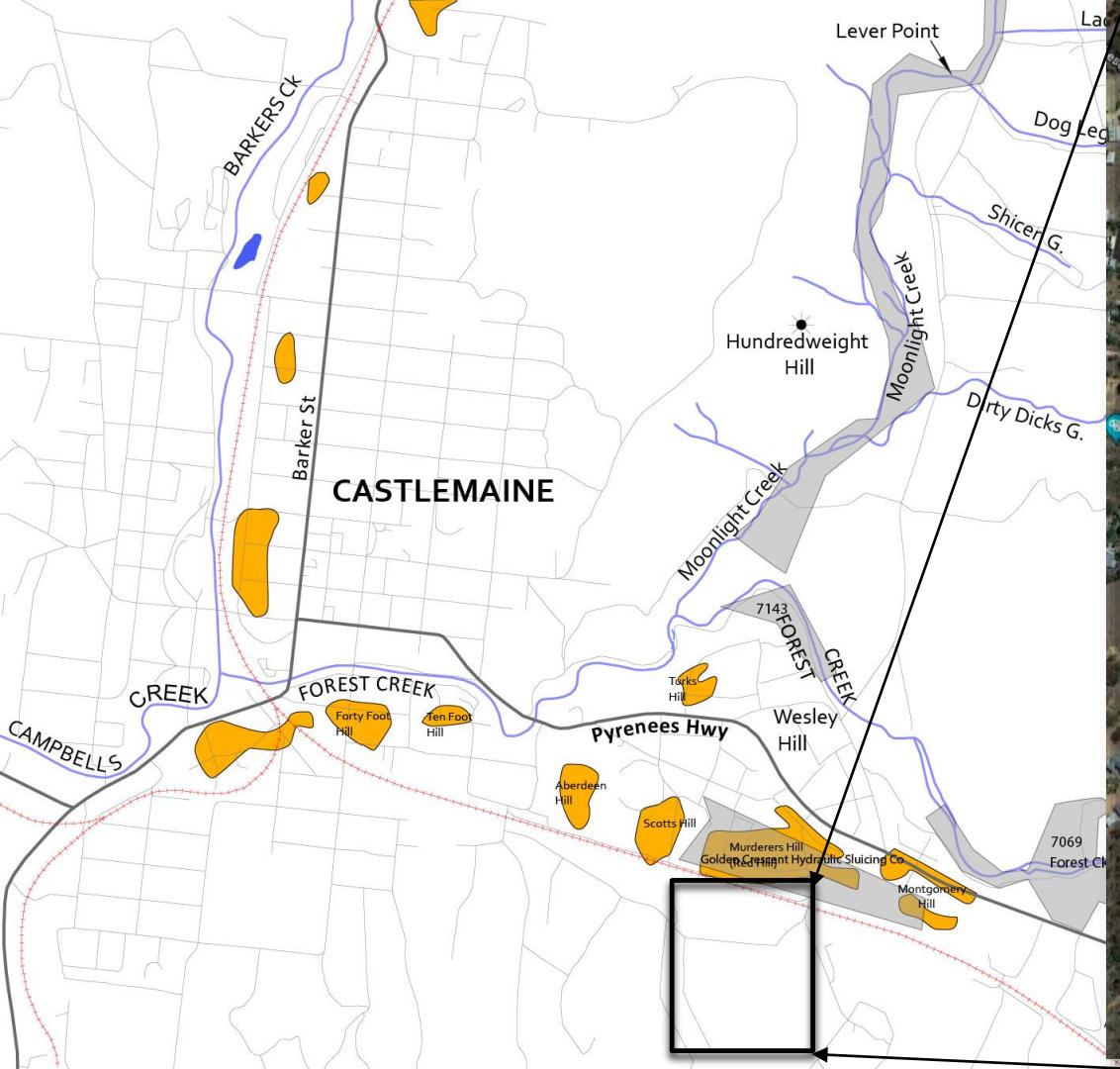
Lidar  
Geoscience Australia  
'Elvis website'



**LiDAR**  
**Light Detection And Ranging**





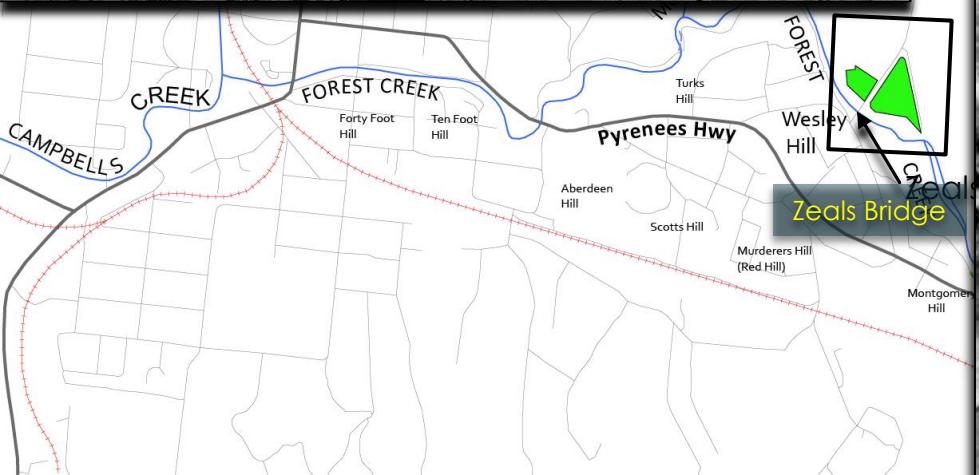




## Castlemaine Market prices:

Carrots & turnips 2 pence per bunch  
Cabbages 3d to 6d each  
Marrows 1.5d to 4d each

Chinese Garden near Vaughan: Castlemaine Historical Society Inc



**Aerial Photo 1pm, 23 Feb 1946**

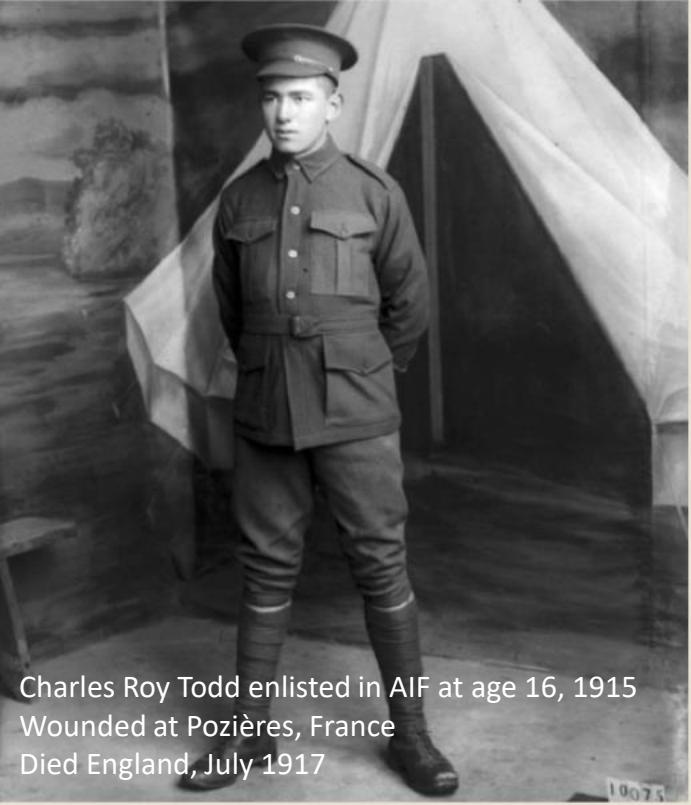


Charles and Florence Lee Suey  
and family c1907

Charles died Dec 1911

Children are:  
Charles (b. 1899), Beatrice, Doris (b. 1901),  
Violet (b 1903), Iris b. 1904),  
Reginald (b. 7 May 1905) and Gladys (b. 1906)





Charles Roy Todd enlisted in AIF at age 16, 1915  
Wounded at Pozières, France  
Died England, July 1917

Charles Roy Lee Suey in Darge's studio at the  
Broadmeadows training camp. (Collection Australian War  
Memorial - Photograph by Darge)

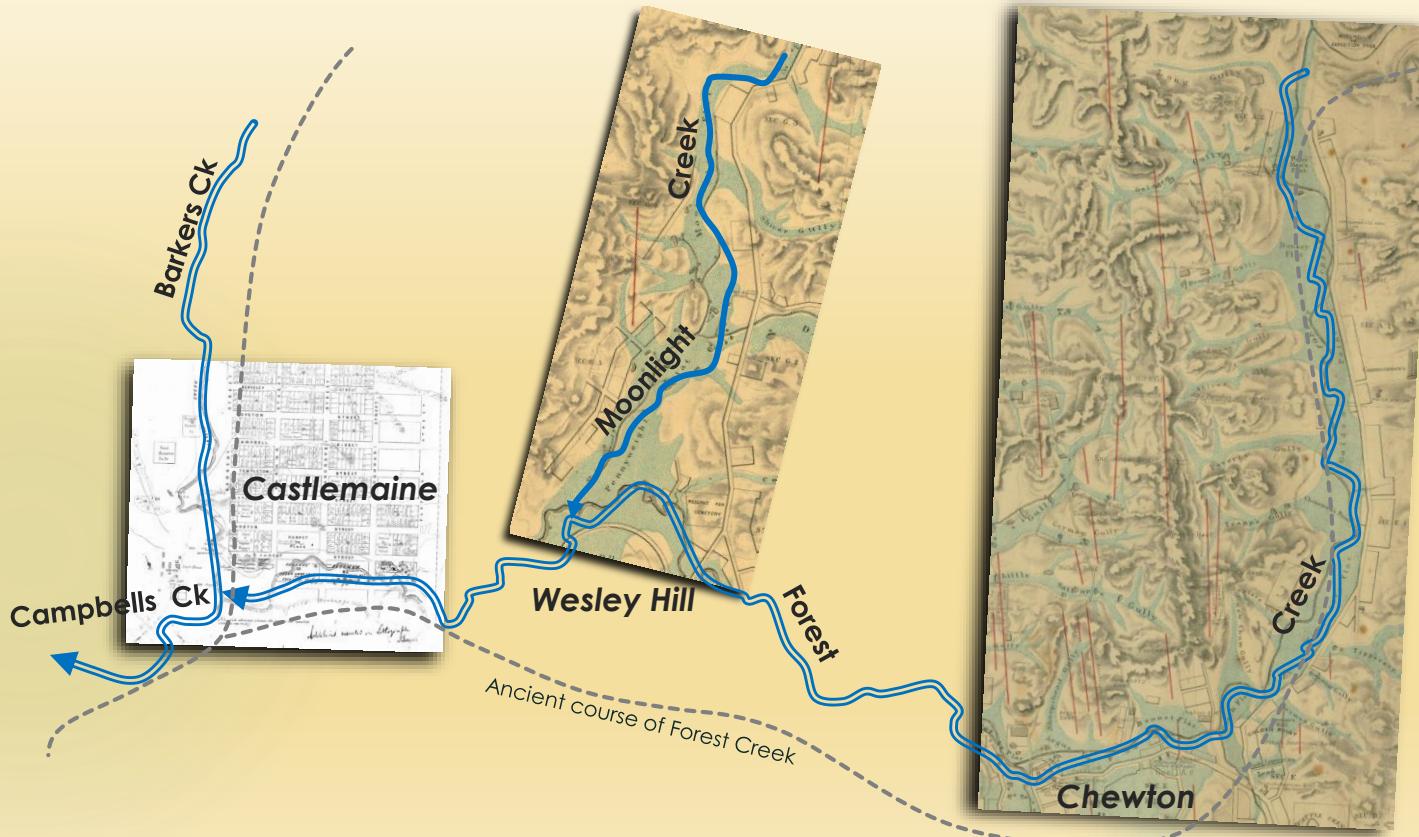
Chinese Anzacs of the Loddon Mallee region,  
Golden Dragon Museum Copyright 2018

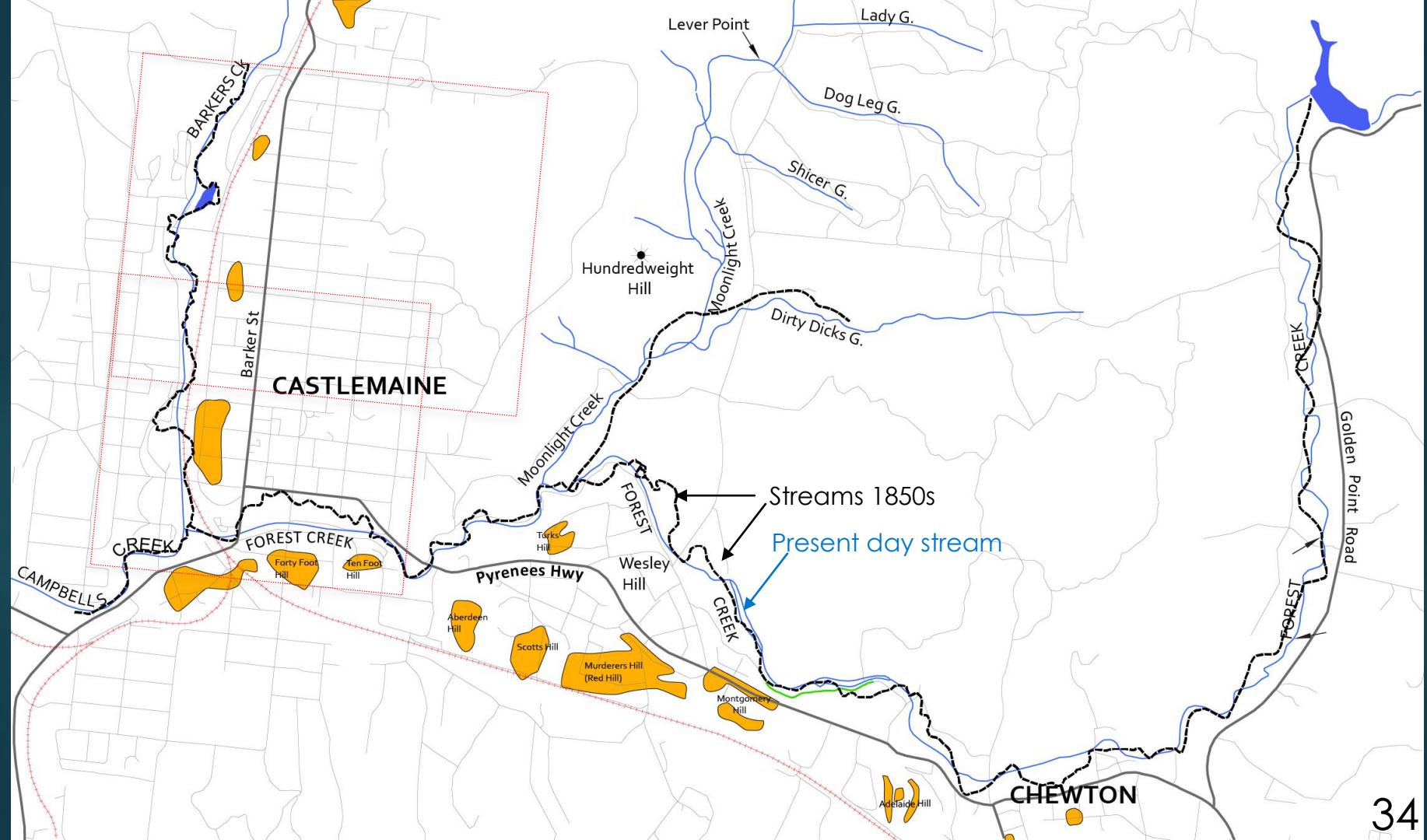


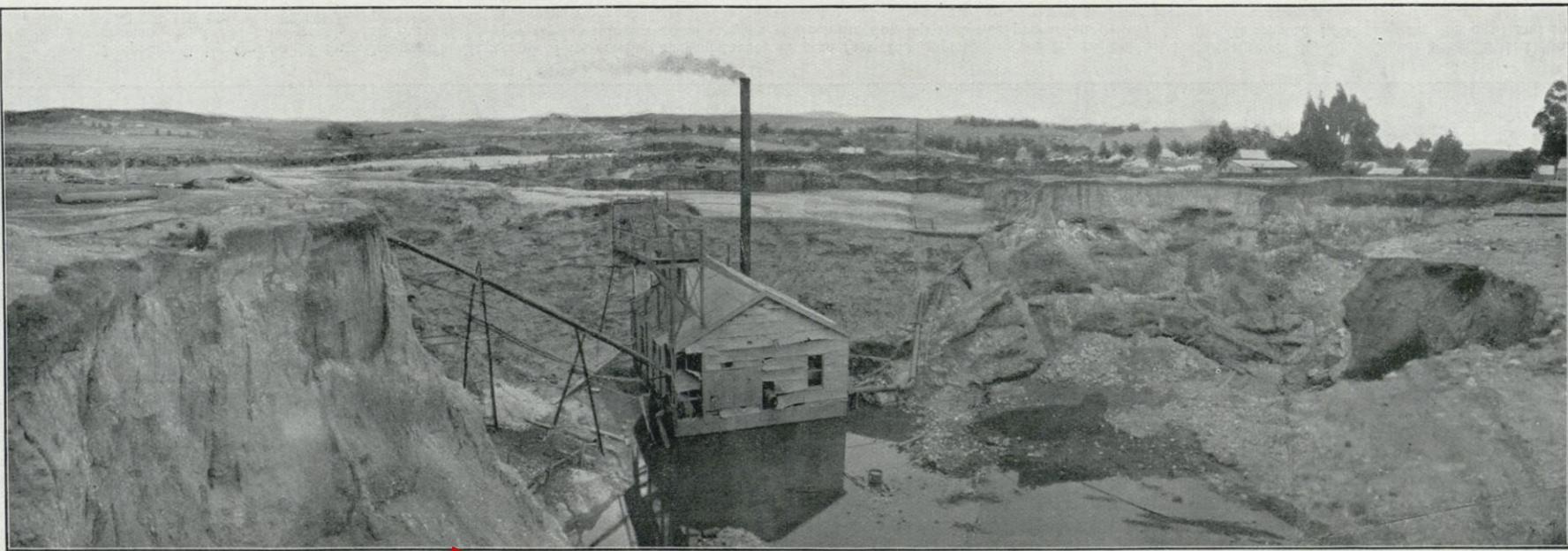
Verey Collection, Castlemaine Historical Society Inc

Adolphus Verey & Co., Castlemaine

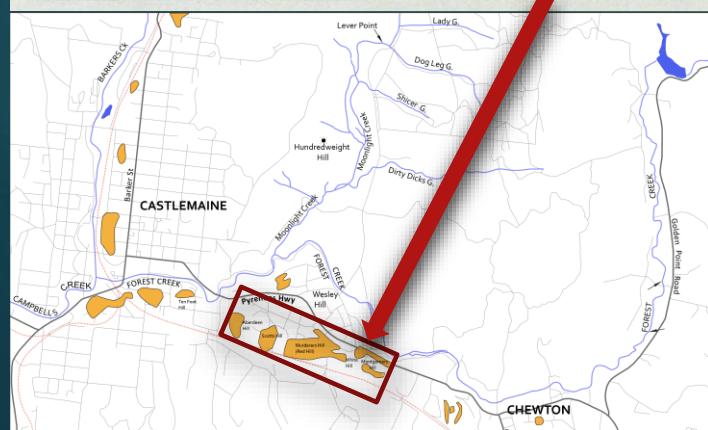
Our once meandering streams have had a hard time  
but are slowly recovering







Golden Crescent Pump Hydraulic Plant, Little Bendigo (Aberdeen & Montgomery Hills  
Mine Dept Annual Report 1914

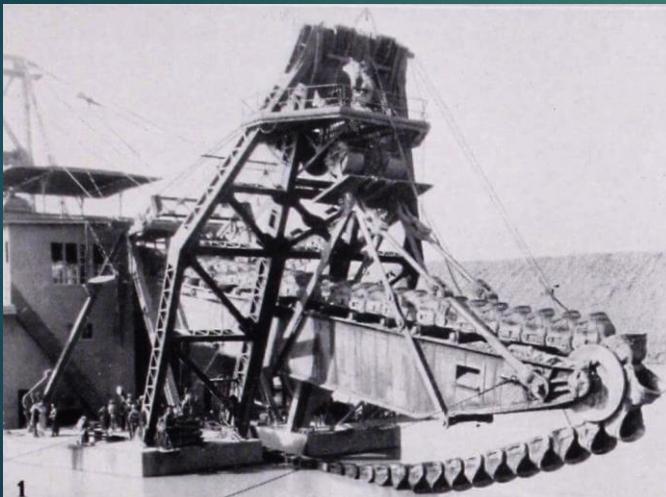


# Sluice and Dredge mining 1898 -1940s



Bucket Dredge, Campbells Ck

Mines Dept Annual Report 1911

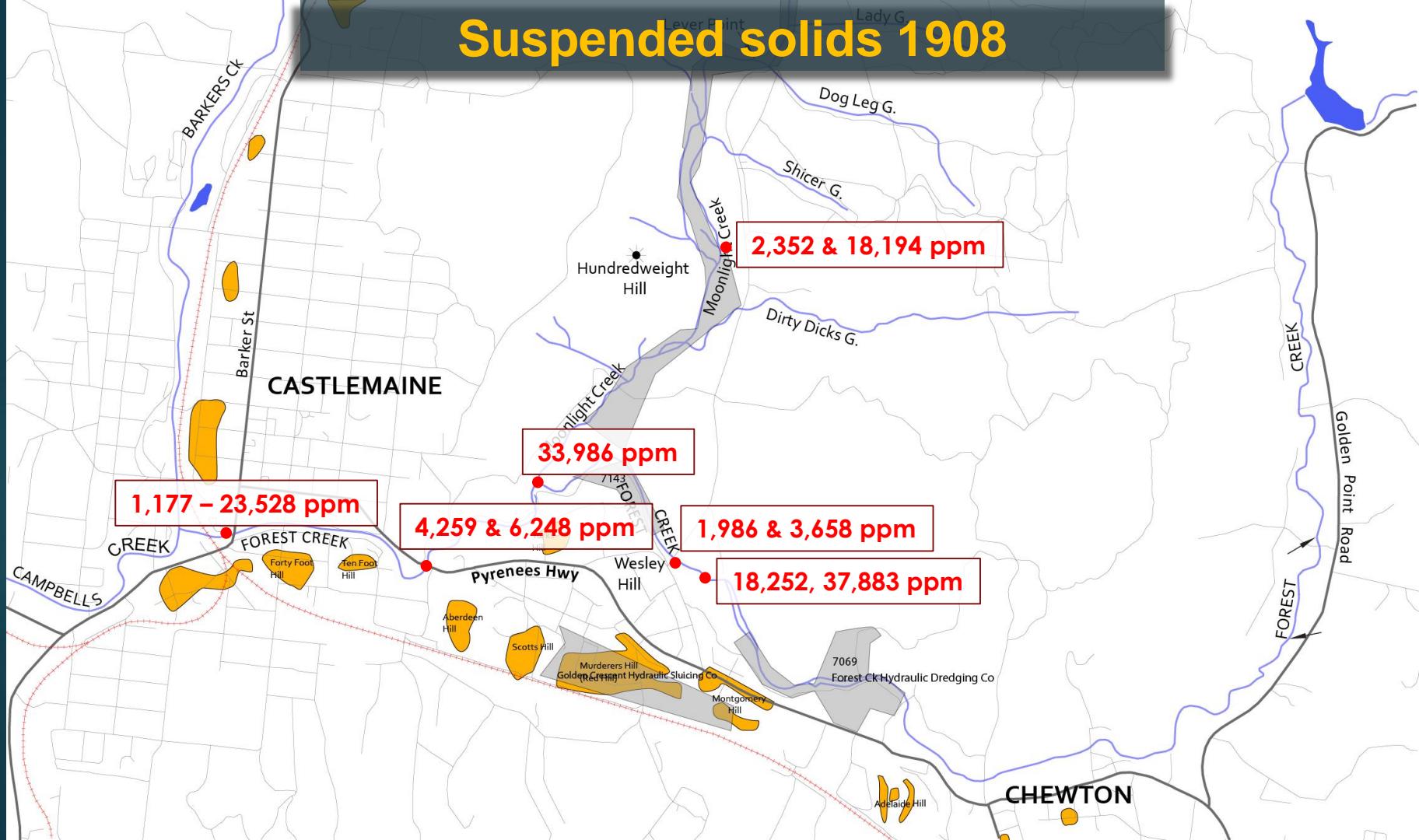


<https://www.911metallurgist.com>

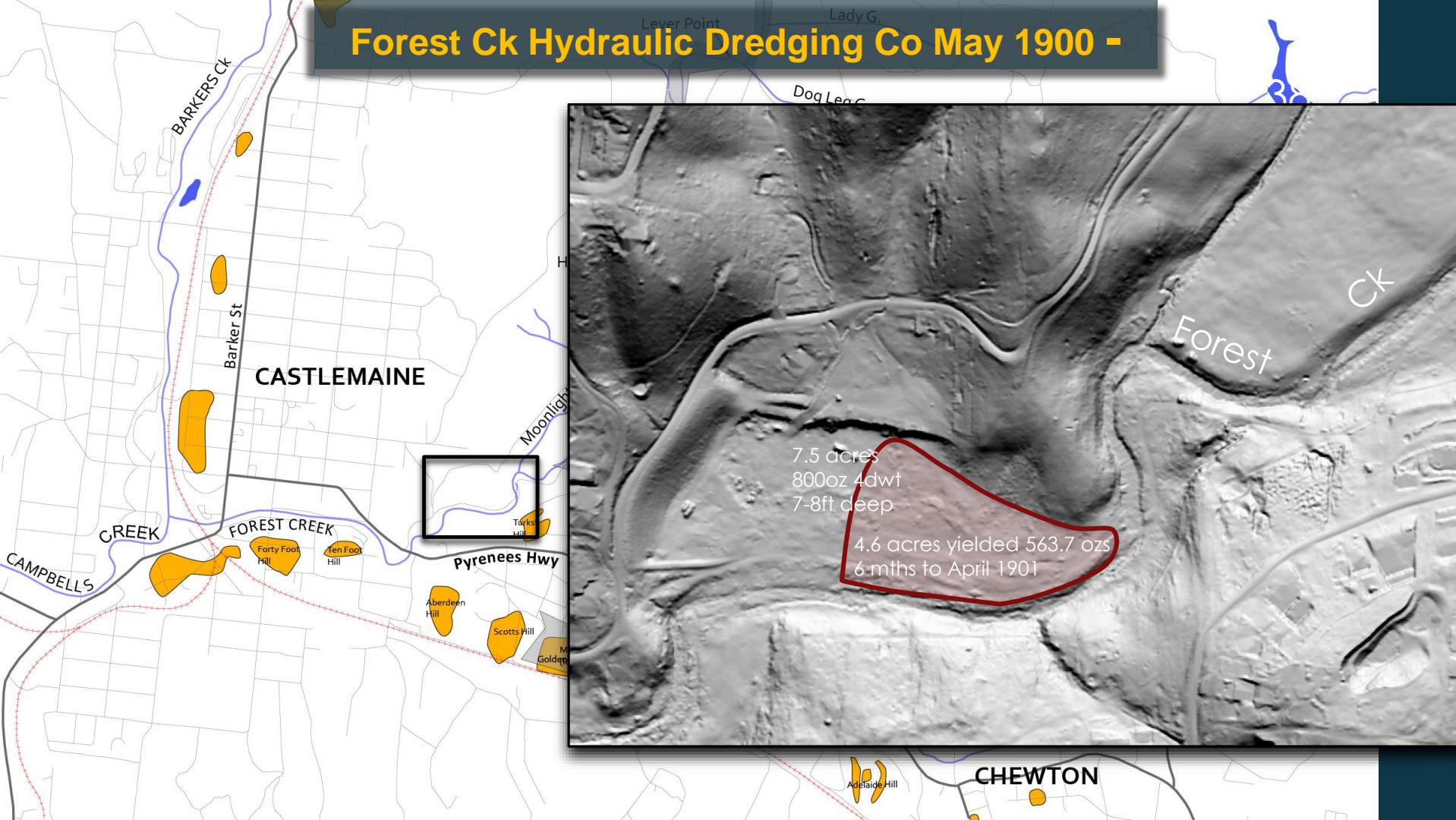


Dredge buckets

# Suspended solids 1908



# Forest Ck Hydraulic Dredging Co May 1900 -



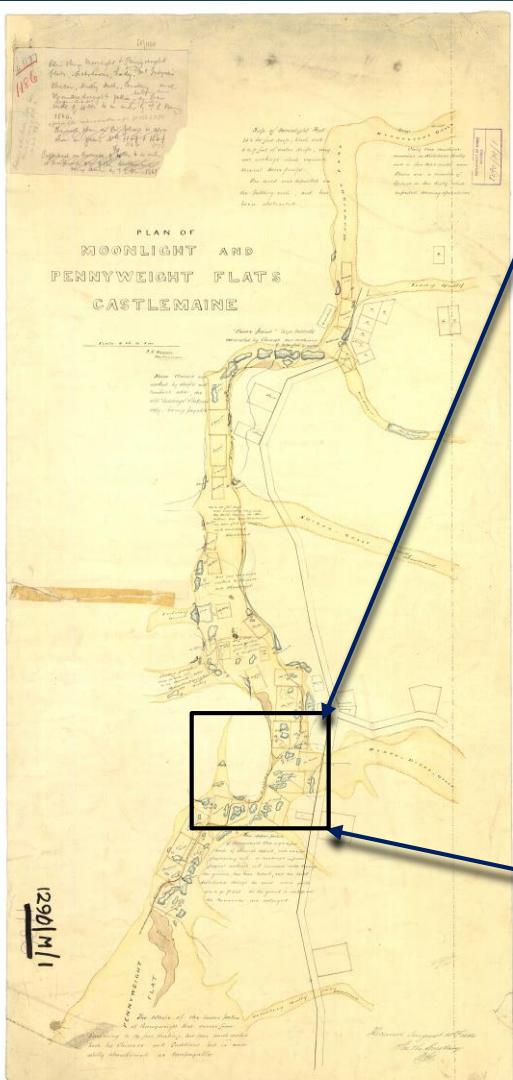


Weekly Times Sat 20 May 1905 page 9

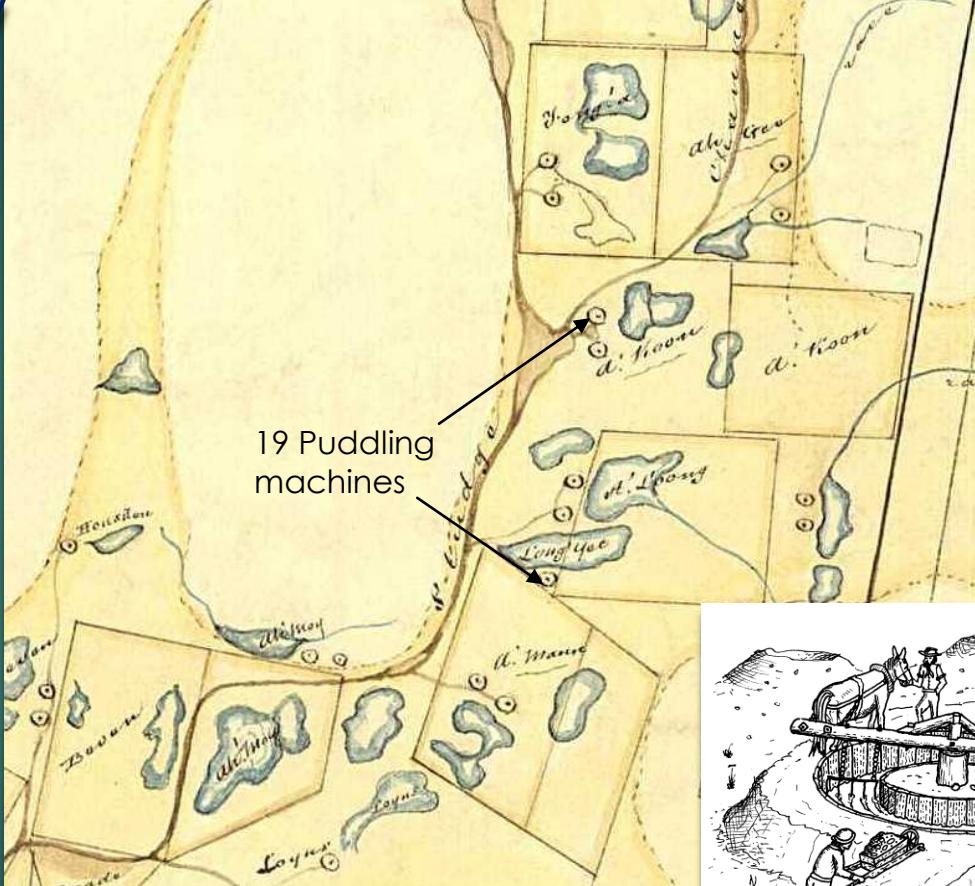


Castlemaine Historical Society Inc

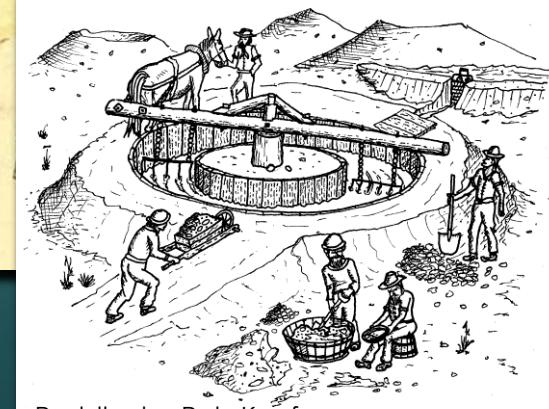
Timber lacework retaining wall



T.L. Brown 1860



T.L. Brown 1860



Puddler by Rob Kaufman

