Oceania Regenerative Network - Site Story

# Freeman's Organic Farm

618 Tomewin Mountain Rd, Currumbin Valley, Queensland 4223, Australia









# **Preface Introduction Macro Context Demographics Traditional Custodians** Freeman's Farm Nearby Farmers' Markets **Bioregion Maps Global Bioregions Ecoregion IBRA Subregion Land Use Native Vegetation Resilience Maps Elevation and Flood Maps Nearby Airports Energy Maps** <u>Solar</u>

**Contact** 

<u>Wind</u>

**Substations** 

#### **Preface**

In response to the recent floods that devastated towns across South East Queensland and the Northern Rivers, the Oceania Regenerative Network has stepped up to an efficacy study to determine to what extent Freeman's farm in Currumbin Valley, Queensland could sustain some significant number of the 600,000 Gold Coast residents, 95% of the population, through disaster.

This is the initial site map engagement to begin the conversation on how Freeman's Farm with the right planning, strategy and investment can be a key pillar in the Gold Coast's resiliency planning.

Oceania Regenerative Network's mission is to Regenerate the Regenerators by supporting those with the capacity to lead the next stage in the regeneration of this planet. We action this via funding, consultancy and strategic alliances for projects across Oceania.

We are currently working on substantial projects across Australia and New Zealand with prospective projects in Vanuatu and Papua New Guinea.

#### Introduction

Freeman's Organic Farm, resting on <u>Kombumerri Country</u>, a <u>Yugambeh speaking</u> nation in Queensland, Australia, is over 100 acres of lush, beautiful, and bountiful greenery. The Farm is stewarded by the fifth generation farmer, veteran, and Human Rights Lawyer (<u>Barrister</u>), Colonel <u>David Gower Freeman</u>. At 107 years old, the farm began as a banana farm, and has since grown into a source of learning, community, and connection with the Earth.



What Freeman's Organic Farm does differently from commercial farms is place a phenomenal focus on a wholly organic approach, with the perspective of food as a source of medicine. For example, the farm boasts berries with 100x the vitamin C content of your average orange and David attributes the leaves of Custard Apple trees as a brew for his recovery from cancer after returning home from the war in Afghanistan.

Every Friday and Saturday, they share their produce at their own market, as well as selling organic Currumbin coffee, accompanied by some of the best views on the Gold Coast - the vistas, David calls in jest 'above average'.





Freeman's Organic Farm presents a huge opportunity for guiding future generations in the importance of an organic mindset, and the power, profitability, and positive reciprocation from working with the flow of nature and coming into coherence with the seasons.

On one warm afternoon, David was mentoring a school of indigenous boys on an infamous Freeman's Farm tour, when one of the young fellas turned to him and told David that his Uncle calls Colonel David 'white indigenous' for his care for country.

Colonel Freeman is an 'earth-based wisdom holder and is playing a vital role in the regeneration of Kombumerri country.

# **Macro Context**

# Distant Map #1:

Located in the

Currumbin Valley,

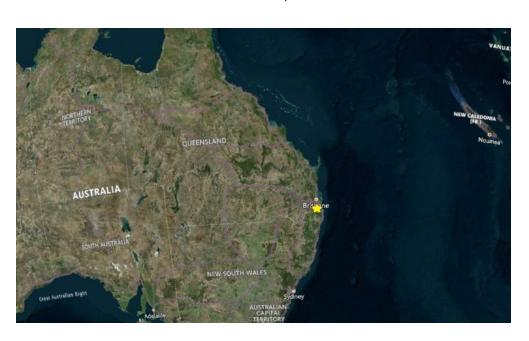
Queensland, AU,

Freeman's Organic

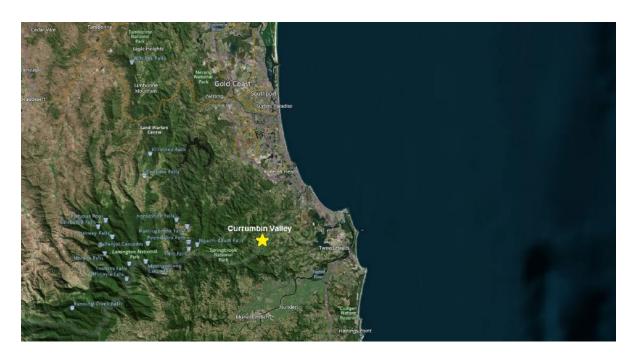
Farm is 100.1km

away from Brisbane,
and 30.6km away

from Gold Coast.



Distant Map #2:



## **Demographics**

According to a <u>recent census from 2021</u>, <u>Currumbin Valley</u> [and its northern neighbor, <u>Tallebudgera Valley</u>] contained an estimated resident population count of **7,907**.

To the northeast, the coastal suburb, <u>Currumbin</u>, [See top right of Distant Map #3] contained **2,920** people according to the <u>latest census from 2016</u>, and the greater <u>Gold Coast</u> area currently consists of a population of <u>around **720,000**</u>. Directly to east, past the state border from Queensland to northeastern New South Wales, the Tweed Shire area contains **97,767** people according to a <u>2021 consensus</u>.



#### **Traditional Custodians**

The traditional custodians of this area of Australia are the **Kombumerri People**, of the <u>Yugambeh Language</u>

group. They neighbored the

<u>Bundjalung</u> to the south, and the

<u>Quandamooka</u>, <u>Turrbal</u>, and <u>Jagera</u> to the north.

According to Norman Tindale, an Australian anthropologist, the Yugambeh held around 1,600km² of land between Cape Byron in NSW, and Southport, Old.

Their language group consisted of the far-reaching <u>Yugambeh language</u>.

#### Yugambeh Language Region:



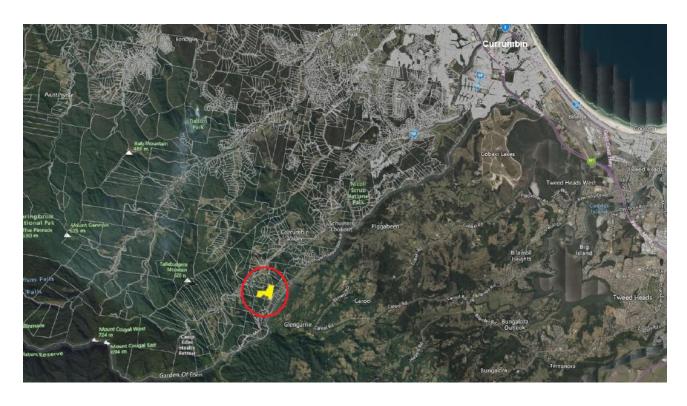
It is our place to acknowledge the traditional custodians (the elders past and present) of each place our reach extends, however, it is not our tale to tell how those who came before arrived. To learn of the creation myth of the Gold Coast area, please listen to the seven minute video <a href="story">story</a> from the posthumous Uncle Graham Dillon. The gifts that the giant 'Javreen' brings forth in the yarn are the very soils that make Freeman's Farm in the top 1% of soils in Australia.

For more information from Kombummeri Together, please visit the <a href="https://kombumerritogetherproject.com/">https://kombumerritogetherproject.com/</a>.

# Distant Map #3:



Parcel Map #1:



#### Parcel Map #2:



#### Freeman's Farm

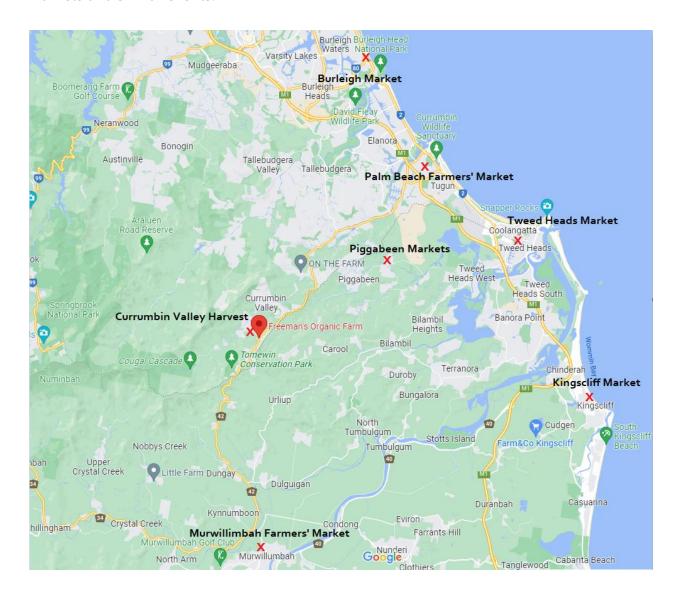
Residing on over 40 hectares (or over .4km² or around 100 acres), **Freeman's Organic Farm** has been in the Freeman family for 107 years, since 1915, and was originally used to grow bananas. At one point in the 1920s, Freeman's Farm became the largest banana farm in Australia at over 100,000 banana trees and used to ship shiploads down to the high-end banana lovers in Melbourne.

According to <a href="http://www.chemfreecom.com/">http://www.chemfreecom.com/</a>, Freeman's Organic Farm now boasts a very large variety of nutritious fruits and vegetables, such as avocado, potatoes, broccoli, and kale.



#### **Nearby Farmers' Markets**

The Currumbin Valley, as well as the towns and cities surrounding it, have plenty of opportunity for supporting local regenerators and artisans through weekly Farmers' Markets and similar events.



Nearby, and within a range of 50km, farmers' markets include the <u>Currumbin Valley</u>

<u>Harvest</u> (the closest), <u>Piggabeen's Market</u> to the northeast, <u>Murwillimbah's Farmers'</u>

<u>Markets</u> to the south, and the <u>Burleigh Market</u>, <u>Palm Beach Farmers' Market</u>, <u>Tweed Heads</u>

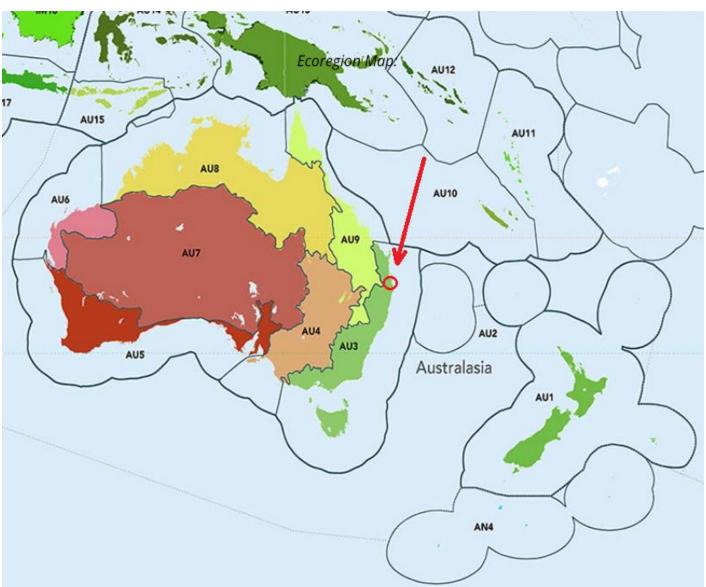
<u>Market</u>, and <u>Kingscliff Market</u> respectively, polka dotted along the eastern coast.

# **Bioregion Maps**

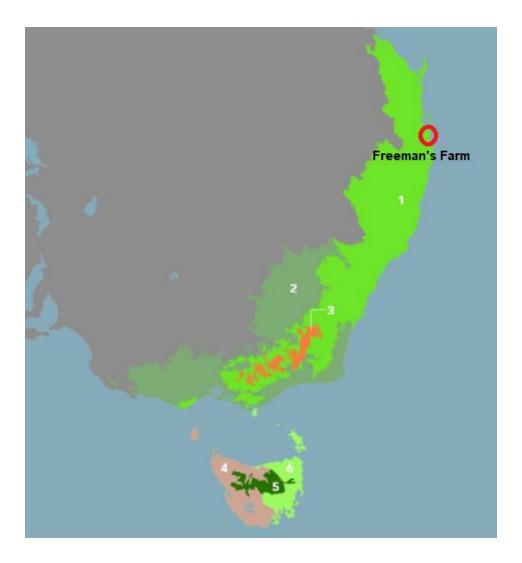
# **Global Bioregions**

On a <u>global bioregion scale</u>, this portion of Australia falls within the category of AU3, <u>Temperate Forests & Mountain Shrublands</u>. This area spans the length of Australia's east coast, and includes Tasmania.

# Oceania Bioregion Map:



# **Ecoregion**

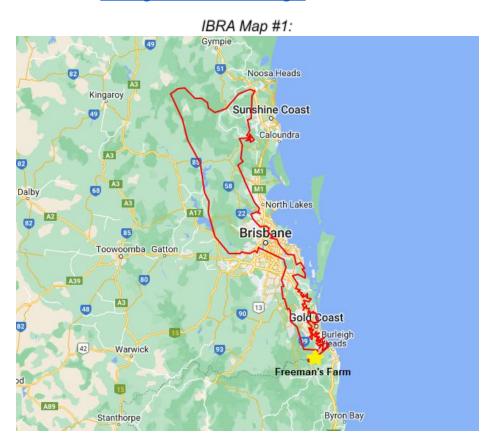


From a more specific perspective within the bioregion, Freeman's Farm is a part of the <u>Eastern Australian Temperate Forest ecoregion</u>.

This is a wetter, coastal ecoregion that has acted as a refuge for wet forest species for millions of years, while also supporting a variety of forests ranging from subtropical rainforests to both warm and cool temperate rainforests.

## **IBRA Subregion**

The Farm's IBRA (Interim Biogeographic Regionalisation for Australia) classification is SEQ3, otherwise known as the <u>Burringbar-Conondale Ranges</u>.



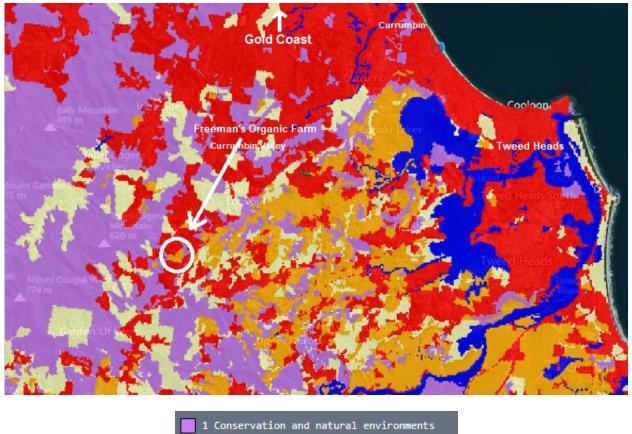
IBRA Map #2:

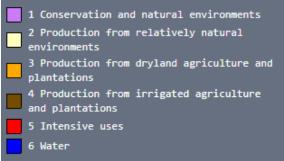
As seen in the right figure (IBRA Map #2), on a map from an official <u>Australian Government's</u> <u>Website</u>, Freeman's Farm borders SEQ10, the <u>Scenic Rim</u>.



#### **Land Use**

## Catchment Scale Land Use 2020:





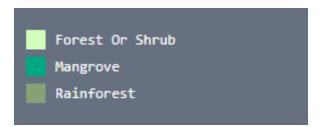
The Farm's area, according to the <u>Catchment Scale Land Use Data</u> from 2020, lies within an area of production from dryland agriculture and plantations. The surrounding area serves intensive uses (meaning land subject to extensive modification, generally in association with closer residential settlement), and conservation land. As stated, Freeman's Organic Farm is used mainly for primary production based on dryland farming systems.

# **Native Vegetation**

# Native Vegetation 2020:



Freeman's Organic Farm lies in Forest or Shrubland, near a Rainforested area to the southwest, and the mangroves of Tweed Heads to the East.

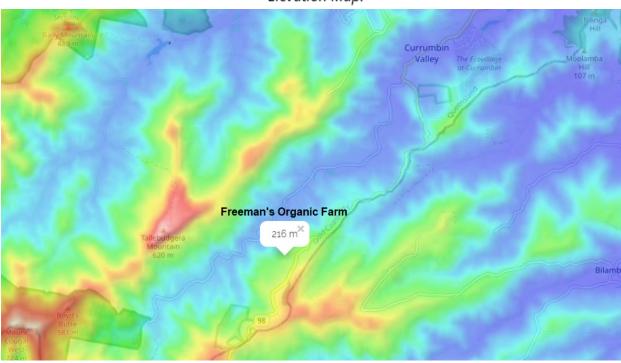




# **Resilience Maps**

# **Elevation and Flood Maps**

# Elevation Map:



The general elevation of Freeman's Organic Farm is between 200 and 240 metres above sea level. If the farm were at risk of flooding, the source would most likely be from the nearby <u>Currumbin Creek</u>.

# Country Cannes Countr

634 m 608 m 582 m 556 m 529 m 503 m 477 m 450 m 424 m 398 m 371 m 345 m 319 m 293 m 266 m 240 m 214 m 188 m

161 m 135 m 109 m 83 m

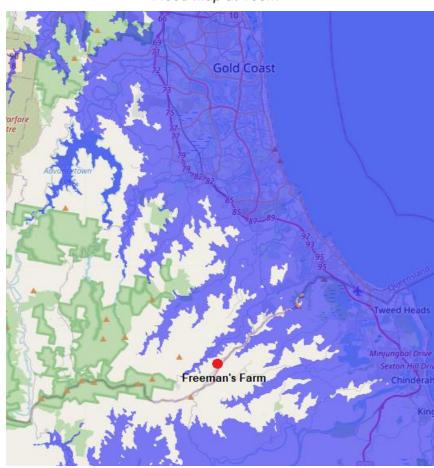
57 m

31 m

4 m

# <u>In service to seven generations and beyond, maximum worst-case sea level rise is</u> <u>100m above current levels. This is our baseline for climate resilience.</u>

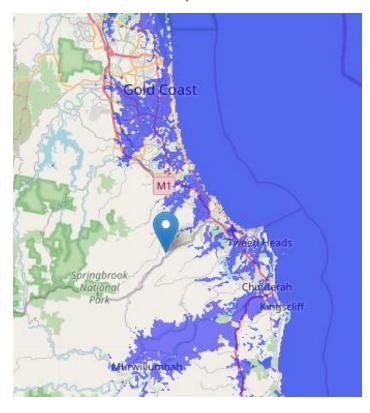
As shown in the map below, taken from <a href="https://www.floodmap.net/">https://www.floodmap.net/</a>, the general area of Freeman's Organic Farm would be at a safe elevation in the worst-case scenario of 100 metres of sea rise (300 feet).



Flood Map at 100m

Another note from this figure is that the closest risk of flood from the combination of sea-level rise and rainwater runoff would be the aforementioned <u>Currumbin Creek</u> to the north.

#### Flood Map at 5m:

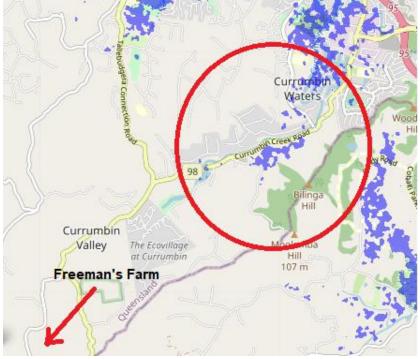


For reference at 5m sea rise, most of Gold Coast, along with Tweed Shire will experience massive flooding, as seen by the projected figure on the left.

Freeman's Organic Farm, in the case of maintaining resilience in regards to the nearest term flood risks, appears to be on a safe parcel of land.

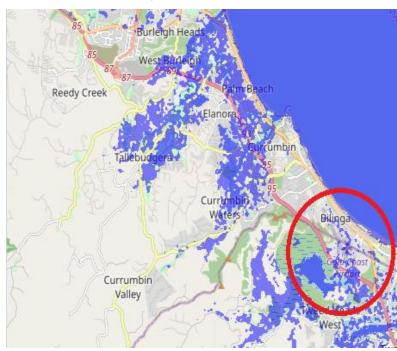
The risk for seeking refuge inland at this point would be the overtaking of roads built near the Currumbin Creek, which would rise and flood given the opportunity at even 1m sea rise. As well as the risk of landslides as seen in the major flooding through the Northern Rivers are in March- April 2022.

Flood Map at 1m:



## **Nearby Airports**

## Gold Coast Airport, 3m Sea Level:



19.3km away, the Gold Coast
Airport (Eastern Ave, Bilinga QLD
4225, Australia) would be at risk of
flooding at 2-3m sea rise as seen
on the figure on the right.

111km away North from the farm, the Brisbane Airport (Airport Dr, Brisbane Airport QLD 4008, Australia) would be at risk of flooding at any more than 1-2m sea level rise, as shown by the figure on the left.



Brisbane Airport, 2m Sea Level:

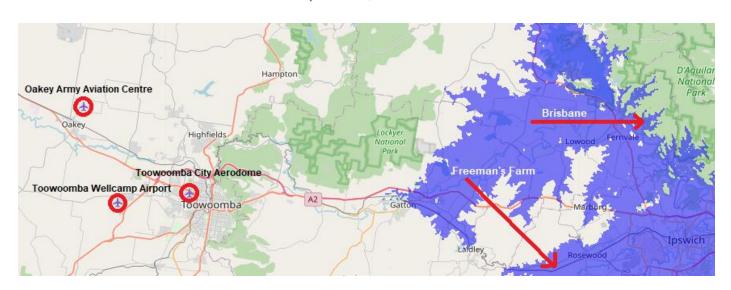
# tha Tooword Tooword Highpate Hill Taringa Kenmore Hills Indooroopilly St Lucia Stones Corner Carina Heights Chelmer Kenmore Graceville Graceville Fig Tree Pocket Brispone Jindalee Jindale

#### Archerfield Airport, 5m Sea Level:

101km away from Freeman's Farm, <u>Archerfield Airport</u> (381 Beatty Rd, Archerfield QLD 4108, Australia) would be at risk as sea level rise hits around 5m.

West and inland from Brisbane, the <u>Toowoomba City Aerodrome</u> (Mutz St, Wilsonton QLD 4350, Australia), <u>Toowoomba Wellcamp Airport</u> (1511 Toowoomba Cecil Plains Rd, Wellcamp QLD 4350, Australia), and <u>Oakey Army Aviation Centre</u> (Kelvinhaugh QLD 4401, Australia) is resilient past the max 100m sea level rise. Each respective airport in the Toowoomba area would be >200km away as the crow flies.

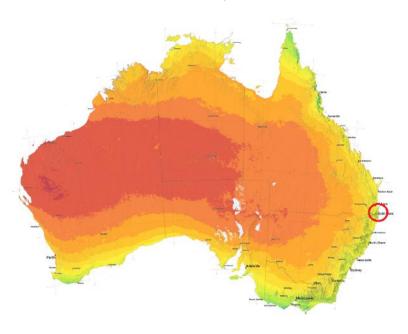
#### Toowoomba Airport area, 100m Sea Level #1:



# **Energy Maps**

Solar

Solar Map #1:



	Long-term a	verage of da	aily/yearly su	ım, period 2	007-2018		
Daily sum:	< 3.0	4.0	5.0	6.0	7.0	8.0 >	
Yearly sum:	< 1095	1461	1826	2191	2556	2922 >	kWh/m²

Solar Map #2:

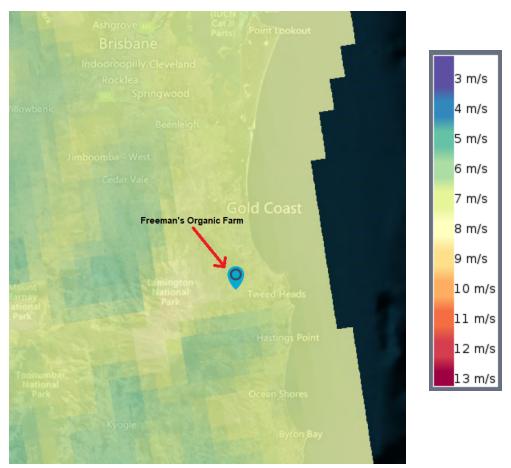


According to data from

https://solargis.com/, the area around the Currumbin Valley, as you travel west and inland from Gold Coast, receives a lower average of daily/yearly sunlight; between 3.5 and 4.5 kWh/m² a day on average.

#### Wind



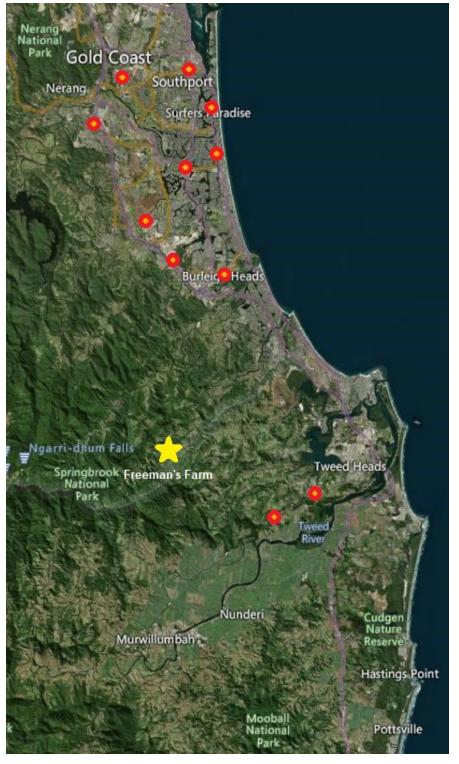


For a generic look at wind potential, this area of Australia (Freeman's Farm is >200m) is receptive to between 7 and 8 m/s of wind speed at over 150m annually.

Considering utility-scale wind turbines are effective at 5.8m/s, this area would be a viable option for renewable wind energy.

The resilience aspect of wind power would be tested by storm surges, and flooding near wherever prospective wind turbines would be stationed.

#### **Substations**



As far as nearby power substations (represented by the circled orange dots) are concerned, the closest two to Freeman's Farm, as well as the rest of the Currumbin Valley, are southeast towards the Tweed River and Bungalora >25km away, past the state border into New South Wales.

There are nine to the north towards the greater Gold Coast area, the nearest in that direction being in <u>Burleigh Heads</u>.

## Contact

# **Oceania Regenerative Network**

Oceaniaregen.net info@oceaniaregen.net

Valley Spirit 2 Eugenia Street Mullumbimby, New South Wales 2482 Australia



**Benny Wallington** *Regenerator & Strategist* 



**Ayana Levi** *Media & Design* 



**Bob Beth** *Chief Steward* 



**Warren Roberts** *First Nations Advisor*