

Update on clearing for renewables in Queensland

Jeanette Kemp, former Queensland Government Principal Botanist, 31 July 2022

This document should be read in conjunction with a previous document titled “Effects of proposed windfarms on vegetation and plants in north Queensland, Jeanette Kemp, former Queensland Government Principal Botanist, 20/04/2022”.

A new (July 2022) comprehensive analysis of all renewable footprints in Queensland is summarised below. Regional Ecosystem figures are derived from Version 12 Queensland Regional Ecosystem data downloadable from the Queensland Herbarium Website. The footprint has been gathered from a variety of accurate sources.

1. All of Queensland analysis by Vegetation Management Act Class

The VMA Class is legislated in QLD but is based primarily on percent of each Regional Ecosystem remaining uncleared, taking no account of condition of remaining vegetation. Therefore, only the most severely threatened ecosystems have any threatened status.

Table 1. Area of Endangered, Of Concern and Least Concern, according to the **Queensland Vegetation Management Act**, which is within the renewables clearing footprint. Includes area with 200 m buffer (i.e., the area likely to undergo secondary impacts).

Vegetation Management Act Class	Area of Clearing (Ha)	Area of Clearing with 200 m buffer (Ha)
Endangered	69.0	328.5
Of concern	1688.5	7942.5
Least concern	18174.0	63057.5
Grand Total Clearing of Remnant Vegetation	19931.6	71328.5

2. All of Queensland analysis by Biodiversity Status

Biodiversity Status is not legislated in QLD but is a more accurate assessment (than VMA Class) of threatened status because it takes into account the condition of vegetation. The Biodiversity Status is used for a range of planning and management applications including the Biodiversity Planning Assessments and to determine environmentally sensitive areas that are used for regulation of the mining industry through provisions in the Environmental Protection Act 1994.

Table 2. Area of Endangered, Of Concern and Least Concern, according to the **Queensland Biodiversity Status**, which is within the renewables clearing footprint. Includes area with 200 m buffer (i.e. the area likely to undergo secondary impacts).

Biodiversity Status	Area of Clearing (Ha)	Area of Clearing with 200 m buffer (Ha)
Endangered	374.6	1879.6
Of concern	2245.9	9959.0
No concern at present	17311.0	59489.9
Grand Total Clearing of Remnant Vegetation	19931.6	71328.5

Note that the use of a 200 m buffer helps to provide a more accurate assessment of likely impact, because the effects of erosion and weed invasion will spread at least to this zone and beyond.

3. All of Queensland analysis by Regional Ecosystem

Appendix 1 illustrates Regional Ecosystems which have 5% or more of their total area in Queensland under the renewables footprint when a 200 m buffer is included. Figures without the buffer are also shown.

Renewables in far North Queensland appear to have the greatest impact (Table 3, Figs. 1-4.). This may be because they involve more clearing of Remnant vegetation than renewables in other parts of the State. However, it is likely to also to reflect the scale of mapping. The North Queensland Regional Ecosystems (the Wet Tropics in particular) have been mapped at a finer scale than most of the rest of Queensland, therefore there are more sub-units or vegetation types (a,b,c's) defined. This makes it more likely that a large proportion of some sub-units (since they are often restricted to specific ecological zones) may be affected by renewable projects.

Therefore, it is highly likely that, if the rest of the State were to be mapped at a finer scale, it would also show that there are many more finer scale vegetation sub-units in other parts of Queensland that will be substantially affected by renewables.

4. Conclusion

These figures along with previous information about species and ecosystems in “Effects of proposed windfarms on vegetation and plants in north Queensland, Jeanette Kemp, former Queensland Government Principal Botanist, 20/04/2022” demonstrate that a very large area of quality vegetation, flora and fauna will be impacted by the renewable footprint.

The cumulative impact on our environment by this rapid roll-out of renewable energy projects being fast-tracked Australia-wide is being over-looked. Although some consider this to be a “compromise”, the process is inexplicable given the very high price that the community will pay through species loss and environmental degradation, ***especially when there are alternative locations in cleared or degraded areas that could be pursued with minimal additional cost when compared to the entire project expenditure.*** Worst of all, most people are completely unaware of the scale of imminent loss of high-quality natural vegetation and habitat. If the general public were fully aware of the impact of these proposals on our natural environment there would be considerable backlash.

Many of these projects are proposed in these locations due to proximity to high transmission powerlines. There has apparently been no strategic assessment in terms of location, and the trade-off between massive environmental impact, and costs of locating further from the line. Conservation groups should be called on the Queensland and Federal Governments for this information, whilst at the same time refusing to accept the legitimacy of several imminent highly destructive projects such as Chalumbin, Mount Fox and Upper Burdekin windfarms.

Appendix 1. Regional Ecosystems which have 5% or more of their total area in Queensland under the renewables footprint when a 200 m buffer is included. Figures without the buffer are also shown.

Regional Ecosystem	VMA Class	Biodiversity Status	Total QLD area	Total QLD area under footprint	Percent of total QLD area under footprint	Total QLD area under footprint with 200 m buffer	Percent of total QLD area under footprint with 200 m buffer	Comments
7.8.18c	Of concern	Of concern	207.7	14.2	6.9	116.4	56	Mostly at the Mt Fox proposed windfarm, some on Upper Burdekin proposed windfarm.
7.12.57c	Of concern	Of concern	840.0	12.8	1.5	229.4	27	All at the Mt Emerald Windfarm (already constructed).
7.12.27c	Least concern	No concern at present	4067.1	203.3	5.0	1060.0	26	All at the Chalumbin proposed windfarm, some on the Kaban Windfarm (under construction)
7.5.4b	Of concern	Of concern	1812.8	55.6	3.1	440.3	24	Mostly at the Mt Fox proposed windfarm, some on Upper Burdekin proposed windfarm.
7.8.18a	Of concern	Of concern	721.0	17.2	2.4	167.0	23	Mostly at the Mt Fox proposed windfarm, some on Upper Burdekin proposed windfarm.
7.12.61b	Least concern	Of concern	840.4	9.0	1.1	120.2	14	Mostly at the Mt Fox proposed windfarm, some on High Road proposed windfarm.
7.3.19g	Of concern	Of concern	19.1	1.9	9.9	2.5	13	All at the Chalumbin proposed windfarm
7.5.4f	Of concern	Of concern	1224.3	25.1	2.0	148.8	12	Mostly at the Mt Fox proposed windfarm, some on Upper Burdekin proposed windfarm.
11.11.4c	Least concern	No concern at present	4920.4	116.5	2.4	535.1	11	Mostly at the Boulder Creek proposed windfarm, some on Mount Hopeful proposed windfarm.
7.5.2d	Of concern	Of concern	1230.2	52.0	4.2	120.2	10	All at the Upper Burdekin proposed windfarm.
7.12.52	Of concern	Of concern	9924.1	216.2	2.2	961.4	10	All at the Chalumbin proposed windfarm
7.5.2a	Of concern	Of concern	3354.9	85.7	2.6	306.9	9	All at the Upper Burdekin proposed windfarm.
13.11.6	Least concern	No concern at present	13115.7	185.2	1.4	1115.3	9	All at the McIntyre proposed windfarm - this is especially significant because it is a stand-alone RE with no a,b,cs (no sub-units) and a large area of clearing is involved.

Regional Ecosystem	VMA Class	Biodiversity Status	Total QLD area	Total QLD area under footprint	Percent of total QLD area under footprint	Total QLD area under footprint with 200 m buffer	Percent of total QLD area under footprint with 200 m buffer	Comments
11.10.4b	Least concern	No concern at present	1997.0	61.5	3.1	160.9	8	All at Boulder Creek proposed windfarm
11.11.5a	Least concern	No concern at present	4906.2	71.6	1.5	393.6	8	Mostly on Calide proposed windfarm, some on Specimen Hill proposed windfarm
9.5.12	Least concern	No concern at present	28616.5	1092.1	3.8	2090.8	7	All at Desaily proposed solar farm (adjacent to Brooklyn Wildlife Sanctuary) - this is especially significant because it is a stand-alone RE with no a,b,cs (no sub-units) and a large area of clearing is involved.
7.12.57a	Of concern	Of concern	3045.2	62.8	2.1	217.5	7	Mostly at the Chalumbin proposed windfarm, some on the High Road proposed Windfarm
9.3.2	Least concern	No concern at present	19887.2	645.7	3.2	1316.8	7	All at the Desaily proposed solar farm (adjacent to Brooklyn Wildlife Sanctuary) - this is especially significant because it is a stand-alone RE with no a,b,cs (no sub-units) and a large area of clearing is involved.
7.12.30c	Least concern	No concern at present	357.7	6.3	1.8	23.0	6	About half at the Chalumbin proposed windfarm and half at the High Road proposed windfarm
7.12.58	Of concern	Of concern	957.8	1.8	0.2	54.6	6	All at the Mt Emerald Windfarm (already constructed).
7.5.2c	Of concern	Of concern	1349.0	22.3	1.7	73.6	5	All at the Upper Burdekin proposed windfarm.
7.5.4a	Of concern	Of concern	1014.0	7.6	0.7	54.9	5	About 2/3 on the Mount Fox proposed Wind Farm and 1/3 on the Upper Burdekin proposed windfarm
11.12.17	Endangered	Endangered	2152.0	44.9	2.1	108.2	5	All at the Wooderson proposed solar farm, this RE is Endangered.
7.12.30a	Least concern	No concern at present	38146.3	345.1	0.9	1888.1	5	Spread across Chalumbin, Upper Burdekin proposed windfarms, Kaban and High Road
9.12.30a	Least concern	No concern at present	34649.0	302.2	0.9	1606.6	5	Spread across Chalumbin and Kaban proposed windfarms, and Mount Emerald (already constructed)



Figure 1. Rugged remote wilderness (Remnant Vegetation) to be cleared and fragmented for the massive 34 km long, 7 km wide Upper Burdekin wind farm complex. Photo Steven Nowakowski.



Figure 2. Very small section of the Kaban windfarm (under construction). Photo Steven Nowakowski.



Figure 3. Fragmentation at the Mount Emerald Windfarm. Note that the proposed Chalumbin, Upper Burdekin and Mount Fox windfarms will have much taller turbines and therefore much larger pads and considerably wider roads. Photo Steven Nowakowski.

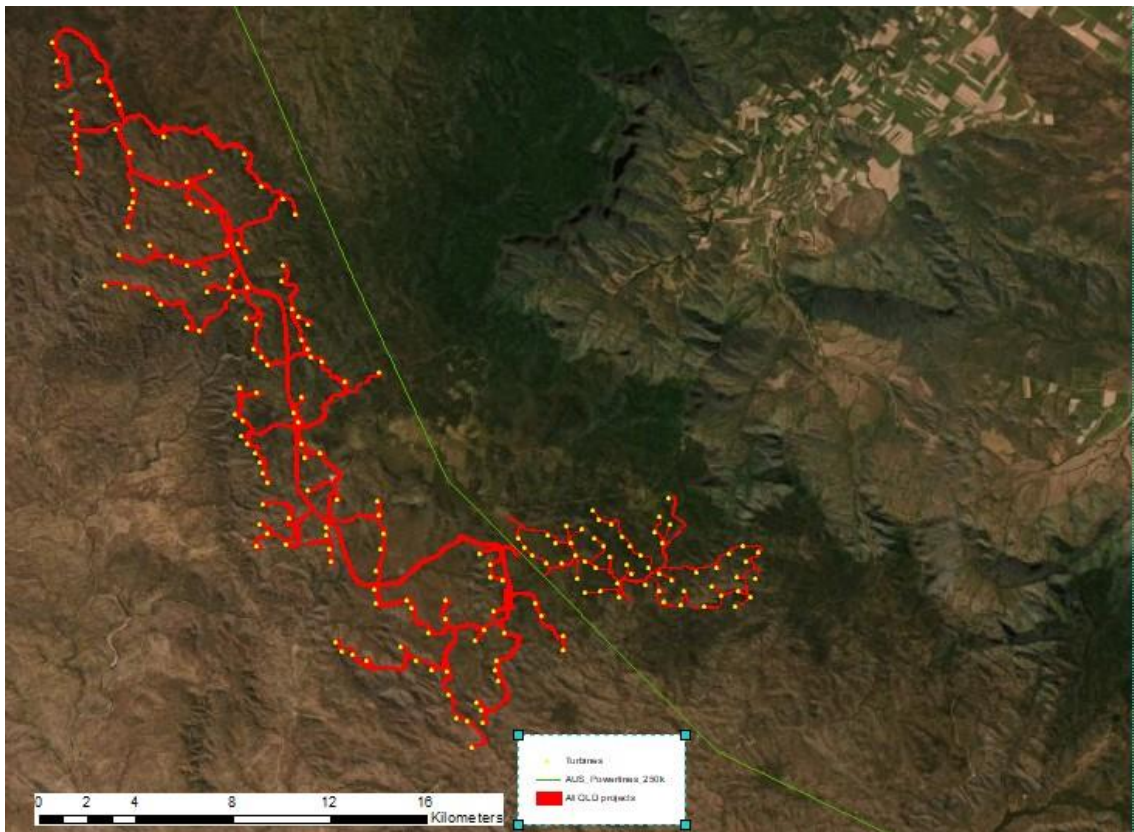


Figure 4. Image showing the scale of the Upper Burdekin and Mount Fox proposed windfarms. These are just examples of many similar projects.