18 November 2014

The Chairman,
The Redistribution Committee,
The ACT Assembly,
Canberra.

Dear Sir/Madam,

I enclose my submission for the public enquiry into the proposed boundaries of the new ACT Electorates.

I can be contacted if necessary at the above address and telephone number.

Yours faithfully,

TIM WALSHAW

PS. Extending the Gungahlin electorate down the east side of Northbourne Avenue to include the suburb of Campbell is a blatant gerrymander, and is likely not be sustained on a High Court challenge. The High Court is more likely to support the concept of compact electorates.

GERRYMANDERS

The electorate of Molonglo is a Gerrymander. If you look at the map, it is clear. The electorate boundary starts in Weston Creek, heads North, cuts around Belconnen. and then heads North again to Gungahlin, with extensions out to the East. The Molonglo electorate is so designed that it returns three left wing or Labor members, three Liberal Members, and the last Assembly seat is left leaning but marginal.

Gungahlin is the electorally marginal part of the Molonglo electorate. The rest of the Molonglo electorate pretty solidly votes one way or the other. In order to secure the last Assembly seat Gungahlin has been showered with goodies – a library, a swimming pool, an expensive community and health centre, and now the very expensive light rail. This is at the expense of other parts of Canberra, including the longer established equal-population Weston Creek, which has received nothing since the Molonglo electorate was instituted.

Why, in the last drawing of the electoral boundaries was not the seven member electorate concentrated North of the lake, and there being two compact five member electorates South of the lake? The reason was party political advantage. The design of the Molonglo electorate as a gerrymander gave Labor a slight but necessary advantage. As subsequent government behavior demonstrated, they were well aware of this fact.

In passing, I should mention that the light rail is a very expensive distortion in decision-making caused by this gerrymander. The billion dollars could more efficiently be spent on a much-needed new hospital for the ACT. The ideal place for this hospital would be in Tuggeranong. There is free land available beside Lake Tuggeranong at Greenway. But at the moment there is no electoral advantage to build a hospital there. However if the electorate boundaries are not gerrymandered, there will be (and to cancel the light rail project).

Gerrymanders distort the decision making by government. Because of the existence of the Molonglo Gerrymander, excessive resources have headed North.

In the upcoming electorate re-division, gerrymanders of any type must be avoided at all cost.

But how can you detect gerrymanders?

Gerrymanders are when the electorate boundaries excessively wriggle about, the boundaries are too long, with the design that they include or exclude pockets of voters to the advantage of the ruling party. In every case the so-called independent boundary commissioners are little more than rubber stamps or covers for boundaries that have already been decided by the ruling party. In the long history of

electorate boundary drawing some pretty egregious electorate shapes have been drawn. It won't happen this time? Who are you kidding!

Is there a way to stop gerrymanders? Yes there is. Though shouting and moaning does not work. A rule has to be agreed between the parties that the electorates should be "compact as possible". This rule should take priority over such other considerations such as natural geographic boundaries, or similar community interests, or just plain silly horse-trading.

There is a mathematical rule to measure the compactness of interlocked areas.

Now, if everything else is equal, any area can divided into a set of equal sized hexagons. Each of the six sides of each hexagon touches one of the sides of another hexagon. Unlike with other shapes, there are no gaps left between the shapes.

Even if the hexagons vary in shape, become elongated or have different length sides, all the sides can touch other hexagons. There need be no gaps.

So hexagonal shapes are the ideal way to divide up an area. However in the real world humans prefer non-angular smooth shapes to do this. It probably gives some appearance of decision-making and the appearance that consideration has been made of all the factors that should be taken into account. Nevertheless hexagonal shapes are the most efficient way to divide up a surface.

So what? It follows that the minimum ratio of an area being touched on all its sides to its circumference is that ratio of the area to its circumference of an equal sided hexagon. If A is the size of the electorate in square kilometers, and C is the length of the boundary in kilometers, then the optimal ratio is

$C = \sqrt{(13.86\ A)}$

(If you don't believe me work it out for yourself).

So, what do you do?

1. From the map, work out the area of the electorate in question.
2. Measure the length of the boundary on the map. There are little wheeled devices which will do it for you called "opisometers" or "chartometers".
3. If the measured C is over twice the 'optimal' calculated from the area using the above formula, you are in gerrymander territory.

So the aim of the exercise is to keep the electorate boundaries as short as possible; in order to prevent distorted and expensive government decisions made to preserve electoral advantage in the gerrymander which has been created.

TIM WALSHAW 18 November 2014