

**Supplementary
Submission
No 70a**

MANAGEMENT OF SHARKS IN NEW SOUTH WALES WATERS

Organisation: Australian Aerial Patrol

Name: Mr Duncan Leadbitter

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Supplementary submission

Australian Aerial Patrol

Recently (at about the time submissions for the Inquiry closed) the NSW State government announced a \$16million package of shark hazard mitigation measures.

The package has a number of common sense elements that are welcome. Not surprisingly, the Australian Aerial Patrol welcomes the government's endorsement of aerial patrols as a key tool in helping concerned members of the public feel safer. As per our main submission this endorsement comes despite trenchant opposition to aerial patrols (both helicopter and fixed wing) by the DPI Fisheries Research. It will be interesting to see how much of the available funds is utilised by DPI.

There are 3 areas the AAP wishes to expand upon in this supplementary submission:

1. Lack of consultation with the longest running provider of aerial patrols in NSW (longest running dedicated provider of aerial patrols in the Commonwealth)

It should be noted that the State government made no contact with the Australian Aerial Patrol prior to making its announcement. Indeed, the AAP was excluded from the recent Summit. The people of the Illawarra and Shoalhaven regions continue to support the AAP with no assistance from government despite our evidence that the AAP record is as good as existing systems in place.

2. Efficient usage of funds allocated to aerial patrols

A second concern relates to costs effectiveness. The price per hour for our main fixed wing aircraft (Cessna 182) is about \$350 per hour. The costs per hour for a helicopter range from \$1000 to **\$4,500** per hour. The former cost is for a small, commercial charter which is unrecognisable by the public (unlike the red/yellow marked AAP and some helicopter services). 'Branded' helicopters are worth in the vicinity of **\$4,500** per hour.

In the absence of any consultation and detail it is obvious that, spread over 5 years, spending \$3.5m on helicopters will not buy much patrol time. This is exactly what happened after the last Summit in 2006 where the DPI excluded the AAP from attendance and funds were expended for a short amount of air time for helicopters.

The DPI claims (Robbins et al 2012) that helicopters see 50% more sharks than fixed wing (fixed wing sees 12.5% of plywood sharks versus helicopters 17%). Even if this figure is true (see our primary submission for evidence otherwise) the high cost of helicopters negates this claimed advantage. Assuming that the \$3.5m is fully allocated to helicopters, this buys about 780 hours of flying time over five years (156 hours per year). If this amount of funds was spent on fixed wing then it would buy 2000 hours **per year**.

Based on helicopter patrol speeds (60 knots or 120km/hr) there will be 18 720km flown per year. Based on DPI figures (see Robbins et al 2012 and all Annual Reports of the Beach Meshing Program) the helicopters will see about 1 shark per 100km. So, each year the helicopter may see an estimated 187 sharks (of all species). If the funds were expended on fixed wing, and working with the DPI's own figures the shark count each year could be of the order 2640 sharks based on a cruising speed of 100

knots (200km/hr) and a sighting rate of two thirds of the helicopter and over ten times the hours in the air for the same amount of money.

The AAP is not opposed to helicopters and noted their value in its main submission. However, it questions the basis for the government's decision to allocate all funds to helicopters due to the high operating costs.

Some serious questions need to be asked about the advice given to the government and NSW Treasury needs to investigate exactly what the government funds are buying.

3. Tagging of sharks

The AAP has already raised concerns about the costs of shark tagging programs as a bather protection mechanism and the lack of coordination between operators of listening stations in its primary submission. The allocation of funds to further tagging puts further emphasis on these concerns and questions need to be asked about:

- What is the primary purpose of the tagging program? Is it to tag sharks to ascertain their movements or is it to protect bathers by providing timely warnings?
- If the latter the critical questions are how many sharks and of what species are expected to be tagged
- What proportion of the estimated population of target sharks will be expected to carry a tag?
- What is the cost per shark of tagging?
- What level of tagging mortality would be expected?
- What resources will the DPI allocate to tagging sharks?
- Based on existing programs what number of sharks could be expected to be tagged by the normal boat based crew per week?
- What number of sharks by species will be tagged each year?
- What is the expected battery life of internal tags?
- What will be the cost of installing and maintaining the satellite uplinks and downlinks?
- What areas will actually be protected? Need to have a map of where the listening stations will be.

Again, the NSW Treasury needs to know what the public funds will buy and the public needs to know the full facts so that it can make an informed choice about which mitigation mechanism is cost effective.