

IN THE MATTER of the Resource Management Act
1991

AND

IN THE MATTER of a notice of requirement issued
by **WEL NETWORKS LIMITED**
pursuant to section 168(2) of the
Act for designations (3) to authorise
the implementation of the Western
Network Upgrade Project

**SUPPLEMENTARY EVIDENCE OF RON JACKSON
RE HELICOPTOR OPERATIONS**

1. INTRODUCTION

1.1 WEL has been requested to provide some further statistical information on helicopter operation associated with the implementation of the WNUP Project. The purpose of this supplementary statement is to make some observations about the likely manner in which helicopter “crane work” associated with the project is likely to be carried out. In that regard, I note that a contractor will carry out the works so it is not possible to state precisely how the work will be undertaken. Having said that, the approach that helicopter operators are likely to adopt is obvious based on other projects and these comments are offered on that basis.

1.2 This statement addressed:

- (a) Likely loading areas (Section 2); and
- (b) Likely flying times (Section 3).

2. LIKELY LOADING AREAS

2.1 The likely lay down areas where the equipment to be used in implementing the project will be stored pending construction are as follows:

- (a) Clifford property. The flat area between the farm managers house.
- (b) Hope property. The flat area behind where the two 33kV overheads meet in Cogswell Road.

- (c) Tainui Airstrip.
- (d) McCauley property between pole 515E and Karakariki Road.
- (e) Te Kowhai Substation.

3. **FLYING PATTERNS AND HOVERING TIMES -**

3.1 WEL has accepted conditions requiring compliance with the relevant Construction Noise Standard (NZS 6903:1999) and with the guidelines of the Fly Neighbourly document. This will strongly influence the manner in which the helicopter operators undertake their operations. For example, to ensure consistent compliance, helicopter flights will normally occur between the hours of 9am and 3pm which fits in with farmers milking and is when most people are at work or school

Flight patterns

3.2 The helicopter will in all likelihood come from Taupo and will most likely fly direct to site and using these areas as fuel stations. The flying time to any pole site will obviously be a factor of distance but, given the distances involved, will only be a matter of a few minutes.

3.3 In terms of hovering times, my experience is that installing poles and dropping off concrete takes about three to four minutes at the work site and the same at the pickup loading areas.

Likely flights - concrete foundations and poles

3.4 Approximately 224 helicopter trips will be necessary to establish the concrete foundations 112 foundations for pole sites meaning 2 trips per site.

3.5 I estimate that 141 poles will be lifted to sites by helicopter and 103 will be lifted by crane meaning 141 trips by helicopter to pole sites.

Stringing conductors

3.6 The 110kv line will be broken down into 25 stringing points along the line. Based on conventional practices, I consider it likely that the contractor will string approximately 1000m of line per run between E type poles, where the conductor will be terminated.

- 3.7 My best estimate is that approximately 120 helicopter flights will be necessary to string the conductors on the overhead lines, based on the following assumptions:
- (a) Around 49 flights from the Te Uku Wind Park to SH23;
 - (b) Around 72 flights for the remainder of the line
- 3.8 At the beginning of the works taking place an initial orientation will be needed. The pilot will fly the line route to familiarise and identify pole locations. I estimate up to 10 flights could be needed.

Methodology

- 3.9 The cost of helicopter operations (costs of helicopters in the air range around \$1500 per hour) creates an incentive to minimise the time spent using helicopters. In terms of work methods, I would anticipate that the contractor will arrange to have all materials ready on site and get as much done in the time allowed, e.g., the pole holes will be pre-drilled and workers will be mobilised to install as many poles as possible in one session.
- 3.10 The closest dwelling site is located 200 metres from the line route.
- 3.11 Based on my experience of involvement with projects which have involved installing poles and string conductors, it is highly likely that the pilot will normally only fly along the route of the line over the properties that WEL has consent for the line route. The likely loading sites will be adjacent the line route on approved land owners properties where approval has been given to stock pile materials and WEL has approval.
- 3.12 It is normal practice for WEL to pre notify all landowners in the area of the times that work will take place giving affected landowners ample opportunity to relocate stock away from the activity.
- 3.13 Overall, it is my view that the helicopter operations associated with the implementation of the WNUP can be undertaken in a manner which avoids or minimises adverse effects provided these operations are undertaken in accordance with the Fly Neighbourly Guidelines and best practice.

Ron Jackson
March 2009