



Report 08.834
Date 29 October 2008
File WO/03/40/10

Committee Catchment Management
Author Dave Cameron, Manager, Land Management

Akura Nursery – Future Production Options

1. Purpose

To inform the Committee of the present pole production capacity, future demands and to seek support for the Stage I proposition.

2. Significance of the Decision

The matters for decision in this report do not trigger the significance policy of the Council or otherwise trigger section 76(3)(b) of the Local Government Act 2002.

3. Background

Greater Wellington has been involved in the supply of poplar and willow poles for the control of hill country erosion for more than fifty years. Up to 1985 these were supplied from small satellite nurseries, Mangapakeha nursery, and a network of farm based nurseries. Mangapakeha nursery, 35km from Masterton on the Castlepoint Road was purchased in 1975. It covers 16 hectares in total.

In 1985 the decision was made to centralise nursery operations and GW (then the Wairarapa Catchment Board) purchased 20 hectares of land at Akura. In 1995 the adjoining Tyler block was purchased adding a further 5 hectares. In total GW currently owns 41 hectares of nursery land of which 32 hectares are productive. The balance of land is riverbanks, headlands, shelter belts, and processing areas.

In 2008 GW made application to the government's Hill Country Erosion Fund for funds to support a new initiative in combating hill country erosion. The Wellington Regional Erosion Control Initiative (WRECI) has had government funding approved for the next four years, as part of a ten year project. This funding is subject to matched funding from GW for the first four years. The GW share is subject to consideration as part of the LTCCP process. We expect there will be a significant increase in demand for poplar and willow poles resulting from WRECI, assuming final approval.

The WRECI programme is projected to need an additional 12,750 poles by 2016/17. Staff are currently in the process of preparing a new business plan for Akura that considers options for increasing pole production

The average annual production of 3 metre poles from GW's nurseries over the last ten years is 17,000. Since 2006 the supply has been supplemented with poles from the Aokautere Nursery in Palmerston North. This agreement will expire in October 2010. Annual pole planting figures for the last three years have been 23,500 poles.

4. Options To Increase Supply

The current productive land base of 32 hectares has averaged an annual production of 17,000 poles over the last ten years. This includes the last four years when irrigation has been applied to new plantings. In the last three years poles have also been outsourced from Aokautere to meet landowner demand.

Assuming that GW wishes to meet current and likely future demand, and not allocate reduced numbers on an annual basis, the options available include:

- increase production in the Akura and Mangapakeha nurseries
- secure a new supply contract from a commercial nursery to also cover short term demand, and potentially the long term demand
- lease or purchase additional land to add to the existing Masterton based operations and cover long term demands.

While Greater Wellington owns land in many parts of the region it does not make economic sense to move the operational base far from Masterton. In fact Mangapakeha which is only 35 km from Masterton provides logistical and operational challenges.

It makes good economic sense to consider production increases from the existing land base before other options are evaluated. For the purposes of this report, production increases and the opportunity for outsourcing are favoured options in the short term. In the longer term when greater numbers of poles are expected to be required, additional land may be required either through lease or purchase.

5. Proposal

Our proposal can be summarised as follows;

- Stage I – improve irrigation at Akura, control stock ingress and plant all fallow land at Mangapakeha, and cover any shortfall through a short term outsourcing contract. Stage I will cover the first 5 – 7 years.
- Stage II – develop new irrigated nursery on lease or GW owned land near Masterton.

5.1 Stage I Proposal

The existing irrigation system at Akura was installed in 2004. This followed a period of soil moisture recording to establish water requirements of a poplar and willow crop. Little information was available at the time for this specialist crop and a number of assumptions were made regarding application rates. Managapakeha nursery relies solely on rainfall.

The existing irrigation capacity focussed on ensuring establishment of new cuttings and applying water to existing stools that had been cut the previous spring. The system does not have enough capacity to apply sufficient water across all blocks at Akura to maximise growth through the summer months.

In 2008 an investigation was carried out to assess the effect of the existing system, and develop costings for a new system that would maximise annual production.

The existing system applies 12mm/pass (0.3ha) to 20% of the nursery over 8 hours/day (6 days/week). The current single phase 3kw pump delivers 2.5mm/hr. This complies with the terms of the resource consent to take water from the current bore. The new system is planned to apply 25mm/pass (0.5ha) over 90% of the nursery and a new consent will be sought to apply for 12 hours/day. This requires a new central bore to be established on 3 phase power and two new overhead travelling irrigators and the associated connections to the existing hydrant network. This new 15kw pump should deliver 14 litres/sec allowing irrigation of 3 ha /day.

The increased application rates will shorten the rotation length of some poplar and willow clones from three years to two years. The remaining clones will have higher numbers of poles per hectare within their three year rotations.

Stock ingress at Mangapakeha has been a factor in reduced production over the last five years. Additional land is available for planting once the fencing issues have been resolved. These actions would add further production from the existing land base.

To cover any remaining shortfall of poles in the short term a new contract to supply poles from a commercial nursery is proposed. Matatoa nursery in Shannon is willing to consider such a contract.

5.2 Stage II Proposal

Any new nursery land needs to be high quality river alluvium, free from flooding and drainage issues. Class I soils generally fit the bill and good areas of this class of land are present within 10 km of Masterton.

A total of 8 hectares is needed to supply 8,000 poles per annum on a three year rotation, including the provision of irrigation.

Annual lease costs are expected to be \$800/ha, or \$6,400 per annum. It is envisaged that all pole processing will take place at Akura and the development costs will not include any buildings.

As with the lease option, any purchased land needs to be located on Class I soils and within easy reach of Masterton. Land of this quality located close to Masterton is estimated to cost \$45,000 per hectare. A block of 8 hectares would cost \$360,000 - \$400,000. Annual debt servicing to cover the cost of the purchase would be in the order of \$45,000.

Development costs of both leased or GW owned land are expected to total \$120,000 and will cover irrigation, shelter, tracks, fertiliser and stool establishment.

6. Costs and Funding of Stages

6.1 Increase Akura and Managapakeha Production

The proposed upgrade involves the establishment of a new central bore, extending the pipe network and purchasing two new travelling irrigators. This is estimated to cost \$80,000.

Mangapakeha nursery has suffered from stock ingress over the years. To control this and develop all available land an investment into new and upgraded fencing is required, plus new plantings. The total estimated cost of this is \$20,000.

In three years time (2011/12) annual production will be lifted from 17,000 to 28,000 poles. Revenue generated from increased pole sales totals \$80,000.

Loan funding would be required, culminating in increased annual interest and repayment costs of \$14,500.

6.2 Outsourcing

The existing outsourcing contract with Aokautere nursery expires in October 2010. There is little likelihood that a new contract will be available, as the block owned by HortResearch is to be sold. Preliminary discussions have been held with Matatoa nursery in Shannon to explore a short term supply arrangement.

As with most outsourcing contracts there is little opportunity to realise a profit. Costs of poles plus freight generally preclude any profit for Akura unless the catalogue price is increased across all poles.

Outsourcing has traditionally been used to fill short term deficits. There have often been difficulties with quality control and consistent supply.

7. Discussion

7.1 Timing

There are a number of key timing issues associated with Stage I:

- Maintain the existing contract with Aokautere nursery in Palmerston North until October 2010.
- Install irrigation at Akura in Autumn 2009 to be operative for the 2009/10 growing season.
- Secure all fencing at Mangapakeha and plant fallow land in September 2009.

Likewise there are a number of key timing issues associated with Stage II:

- Secure 8 hectares of suitable lease land in 2012 to enable land development to occur early 2013.
- Plant one third of lease land in September 2013, balance to be planted over next two years.
- Harvest 4,000 poles in 2016, ultimately producing 8,000 poles per annum.

The WRECI programme has secured Government funding through to 2012/13. The decision to lease land should be delayed until ongoing Government and Regional funding is secured. From a Regional funding perspective this would need to be considered when preparing the next LTCCP for 2012-2022.

Additionally by 2012 the rate of implementation of WRECI will be known and any adjustment in demand for poles can be built into the model.

Any shortfall in pole supplies through to 2015/16 could be met through outsourcing from a commercial nursery. The owner of Matatoa is currently looking to secure long term contracts for the supply of poplars and willows. On the figures presented a six to seven year contract supplying 3,000 – 4,000 poles per annum is a possibility.

7.2 Financial Implications

Attachment 1 indicates how the financial performance of the nursery operations will be affected by the Stage I and Stage II proposals.

Stage I, the upgrade of irrigation on the existing Akura land, has been allowed for in the forecast Profit (Loss) line. Except for 2011/12 all other years are showing a healthy profit. 2011/12 is showing a loss because of the high number of poles supplied from another nursery. A very small margin exists on these poles.

Stage II, the lease and development of 8 hectares, begins in 2012/13 with a lease contract. Development of irrigation, shelter, roading and cultivation will take place in early 2013. Preliminary financial modelling suggests that Akura can sustain the proposed Stage II development without a capital injection from Council. Further modelling closer to the point of decision will however be required to confirm this.

Attachment 1 indicates that from 2014/15 onwards there is a healthy financial position able to cover additional loan and lease repayments. Production of poles from GW nurseries clearly provides good returns in the long term. Outsourcing is appropriate for filling short term shortages of poles. It is not seen as a good long term investment because of issues of security of supply, reduced profit margins, and quality control.

The preparation of an updated business plan for Stage II should be completed prior to Council consideration in early 2012.

8. Communication

WRECI is due to be communicated and promoted to the hill country community when the regional component is confirmed. Communication around WRECI will be enhanced with the securing of a sustainable long term supply of poles.

Landowners throughout the region will be contacted using a number of channels including the Wairarapa Hill Country Advisory Committee, Rural Focus newsletter and local newspapers.

9. Recommendations

That the Committee::

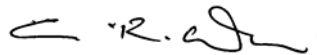
1. **Receives** the report.
2. **Supports** the Stage I development at an estimated capital cost of \$100,000 being included in the Akura business plan as part of preparing Council's 2009-19 LTCCP.
3. **Notes** the Stage II development options and that a decision is not required on this investment until the 2012-22 LTCCP.

Report prepared by:



Dave Cameron
Manager, Land Management

Report approved by:



Geoff Dick
Divisional Manager, Catchment Management

Attachment 1: Akura developments and timing