

THE GROWTH CONFLICT

DEVELOPING AN APPROACH TO AUCKLAND'S INFRASTRUCTURE NEEDS

by Don Lyon BPlan, MNZPI

Director of Planning

Beca Carter Hollings & Ferner Ltd

INTRODUCTION

I have been asked to provide a practitioners perspective on infrastructural issues faced by the Auckland region. The Beca Group are involved in most spheres of infrastructural investigation, consenting and development in the region. Whilst I do not profess to have expertise in all these spheres myself, my role as Beca's Planning Manager enables me to offer a strategic birds eye view of what I consider to be the major infrastructural thresholds and priority issues which need to be addressed over the next 20 years.

As part of the background research for this paper I have taken the opportunity to talk to some of Beca's major infrastructural clients and to discuss issues within the various engineers, planners and scientists working on infrastructural projects within the Beca Group.

The single overwhelming and consistent theme which emerges from these discussions is a common concern at the apparent lack of action as far as strategic and integrated management is concerned and inadequate recognition of the significance of the major infrastructural issues both for this region and for the New Zealand economy and environment as a whole. This is despite the good endeavours of various agencies with regard to drafting various strategic and policy documents such as the Regional Growth Forum and the Draft Land Transport Strategy. Power in Auckland, water in Sydney and gas in Melbourne. These three recent failures are not coincidence. They are evidence of "stress" and infrastructure owners are aware of many other potential problems.

I make no apology therefore if rather than providing you today with specific detail on each and every infrastructure project

planned for the region I prefer to discuss this wider-strategic issue in some depth. To emphasise the importance of integrated management I also intend to take a broad view of what constitutes infrastructure in the region. I will not limit myself to the hot media issues of land transport, wastewater and stormwater. These deserve attention but in my view other infrastructural thresholds are being approached for the port, our airports, our regional parks and in our energy infrastructure. I hope I can provide you with a brief snapshot of the relevant issues emerging from the regions growth for these sectors and to close I have outlined some early ideas I have developed which I think could enhance integrated management and better address the 'Growth Conflict'.

INFRASTRUCTURE THRESHOLDS

So briefly just what is the state of play with the regions major infrastructural assets. For convenience I've grouped this in alphabetical order.

"The electrical demand across the Auckland Isthmus is predicted to exceed capacity in 2006".

Airports

Auckland International Airport is a strategic transport asset of national importance. It is most likely to remain as the only international facility in the region hence we must optimise its use and development of this asset.

Of course the current high profile project at AIAL is the proposed second runway whose length will vary dependent upon the runways function (domestic and/or interna-

tional) which is related to the noise debate. A new domestic terminal is also planned as well as further international terminal expansion.

At present Auckland's other commercial airfields (Ardmore and Dairy Flat) effectively compete for a share of the general aviation market whilst Whenuapai continues its defence focus.

Given the predicted growth in the region, a strategic approach to protecting and developing the region's airports is essential. In this regard the ARC deserves credit. They have vigorously tried to protect existing rural buffers at AIAL, Dairy Flat and Whenuapai and are actively trying to protect Ardmore through air noise boundary definition.

HV Power

Security of supply and system reliability is perhaps the key energy infrastructure issue for Auckland, particularly given the ageing nature of the existing high voltage lines. The electrical demand across the Auckland Isthmus is predicted to exceed capacity in 2006 and we have to reinforce the supply to the North Shore to meet increasing demand.

A key issue is how to effectively and efficiently complete a heavy power ring around the greater Auckland area which would then ensure under outage conditions, that power could be supplied from either end of the ring. This approach would largely avoid a repeat of the recent power crisis.

Ports

The key issue here is that, like AIAL, the Ports of Auckland are a strategic asset of national importance. The success of the port is heavily reliant upon its ability to retain efficiency and cost advantage over competitor ports in our part of the world. Auckland is the hub of New Zealand.

Currently the Port also enjoys cost advantages compared to Australian ports especially from an efficiency perspective. However we are probably too small to be a major force in global shipping strategies.

Hence we need to look at how all parties can assist with maintaining the ports competitive edge. Obviously the major current infrastructural investment at POAL is the recently approved Fergusson expansion. There are other development and re-development options within the existing port area which need to be recognised in forward planning. Studies have confirmed that there is little prospect of any new port being established on Auckland's east coast, especially from a consentability perspective. Hence we must optimise the asset we already have.

As an urban port some adverse effects from port operations are inevitable. The efficiency of the port can be maintained by discouraging further encroachment of sensitive uses (especially apartments), by kerbing increased compliance and monitoring costs and by optimising key transport linkages to and from the port including rail and motorway access.

Regional Parks

The region's population grew by 120,000 between 1991 and 1996 (the equivalent of a city the size of Dunedin). The region is expected to grow to 1.5 million by 2020 and 2 million or more by 2050. Our more popular regional parks such as Wenderholm, Maharangi, Long Bay and some gulf islands are already under visitor pressure. If we are to avoid degradation of these facilities and environments we either have to provide more parks to spread the load or introduce measures such as charging to discourage excessive usage of the parks under most pressure.

This need is not limited to parks in rural areas of the region. In fact with the Regional Growth Forum promoting intensification as the major growth mode for the region, the availability of suburban and central city parks will become critical over the next 20 years. How will the domain and central volcanic cones cope with the pressures brought about by a significantly increased urban population short on private open space?

Auckland has a proud record as far as regional parks is concerned. We need to maintain the impetus with early forward planning for both new facilities and optimisation of existing facilities. In both cases the

cost implications are significant.

Stormwater

In the Auckland context flood management is a relatively minor infrastructural issue with most problems being of a local scale.

Two stormwater issues are important however and both have major cost implications.

Firstly, chronic degradation of our stream and coastal environment through contaminant discharges. Contamination of water and sediment is inevitable due to development and growth and this tends to be an insidious problem which degrades our environment over several decades with a gradual loss of habitat quality. The dilemma we have with this problem is that growth in Auckland is inevitable and that even with the very best and most expensive technology at best we can probably barely hold contamination at its current levels. Spending money on a chronic condition like this is not glamorous and may be barely recognised by most people. This is a "hard to sell" infrastructural problem and at present there is no clear strategic direction on what fur-

t h e r

"We need to maintain the impetus with early forward planning for both new facilities and optimisation of existing facilities".

action should be taken.

The second major expenditure item for the region relates to replacement and upgrading of aged pipework. Separation of stormwater from sewers is a major ongoing cost commitment for the regions TLA's, but in time will lead to significant environmental benefits. Replacement of all aged stormwater lines would obviously be cost prohibitive. Therefore we need to focus on replacing undersized lines and rehabilitating or relining others as far as is practicable.

Land Transport

This is the growing infrastructural problem which has probably received most attention over the last decade but to date there remains little evidence of successful integration of the various land transport modes.

Without spending hours debating the

merits or otherwise of our motorway network, I think we should now accept that failure to complete this network as originally planned in the 1950's will lead to severe congestion and significant degradation of many of our residential and commercial areas which are burdened by unnecessary through traffic.

In this regard I support the draft Regional Land Transport Strategy which recognises the need to complete the strategic road network and the missing links as an early component of any integrated transport solution.

I do not accept the criticism of some commentators who claim that the draft strategy fails to go beyond the motorway network. In fact a careful review of the document confirms that it does address the need for a range of other urban transport projects and initiatives including bus priority, park and ride, kiss and ride, ferries and rail transit. The strategy promotes a multi-modal solution and in the Auckland context I see this as essential. In my view we have a 10 year window of opportunity to develop an integrated transport solution combining the best of our natural assets (such as the harbour) with the best of our existing road transport system

An integrated solution will consist of:

- Short term works to finish the strategic road- ing network, enhanced with bus and high occupan- cy vehicle priority
- Ferries to multiple destinations
- Rail feeders and a CBD LRT loop from a downtown hub
- Park and Ride and Kiss and Ride facilities
- A renewed emphasis on passive transport supporting a denser city form (cycling and walking)

Basically an "everything in moderation" approach.

Wastewater

Project Manukau at the Mangere WWTP is obviously the current major infrastructural project for the region. In addition to this major upgrade however, Watercare recognise that given the Mangere population cap of 900,000 people, there is a need to take a regional approach to meeting growth through the planning and development of satellite plants at least in the west and south and probably also for the northern (Hibiscus Coast) corridor, for the Beachlands, Maraetai area, Waiheke Island and for Pukekohe. The role and function of the North Shore WWTP (which is also undergoing multi-million dollar redevelop-

ment) also needs to be factored into regional planning.

People involved in wastewater that I have talked with feel that in recent years there has been a lack of strategic thinking and the absence of any governing agency for wastewater planning. By default Watercare, which is a utility delivery company, is being compelled to provide regional strategic planning for both wastewater and

water supply while

the region's

TLA's are

being asked

to speculate

on future

design pop-

ulations with

little wider

strategic debate.

One specific example of

the need for integrated management relates to "utility corridor" designation and protection. Rail and road corridors have traditionally been used for bulk services. However there is little co-ordination between various infrastructure providers, owners of these corridors and regulatory agencies. For satellite wastewater plants these service corridors are vital and need strategic recognition.

Water

Aside from the Waikato pipeline major future investment will probably focus on water quality enhancement and on a north-western dam source and other satellite sources for more remote growth nodes. In this regard the same issues regarding regional strategic planning apply here. The Waitakere and Hunua dams are superb examples of early integrated management and planning in Auckland. We need to ensure that we continue to take a very long term view of Auckland growth and demand when planning major infrastructure such as water supply dams or treatment plants.

INTEGRATED MANAGEMENT

Now this is the main theme of my presentation today. In my view we have lost sight of the fact that strategic planning for infrastructural investment is one of the key activities needed in any region. If the Ministry for the Environment prescribes that the Resource Management Act is limited to assessment of environmental effects and, the sustainable management of natural and physical resources then fair enough. However, infrastructure is clearly a key physical resource and there is nothing that I can see in legislation which prevents local and regional

government (or indeed private enterprise) taking a strategic and integrated approach to the planning of major infrastructural investment and development. Such a vital planning activity surely lies beyond the scope and purpose of RMA. In fact the RMA should not necessarily even enter the equation until the actual and potential effects of infrastructural development need to be assessed.

The point I make here is

that the perceived

constraints of the

RMA should

not be seen as

an excuse for

poor forward

infrastructural

strategic

planning.

Infrastructure

providers such as Transit New

Zealand, Watercare or Ports of Auckland Ltd recognise that there is a long lead time for the investigation, consenting and design of major infrastructure assets. I wonder however, whether the drafters and administrators of our current regional and district plans are coping adequately with the need to accommodate major infrastructure within their regions or districts when development of such infrastructure may be some years off. I suspect they are not coping with such strategic issues because they are caught up in the detail of the RMA and its workings. The result is that infrastructural projects such as Project Manukau or ALPURT are often being assessed against the same piecemeal policies and rules as the hugely diverse range of other developments which a local authority officer must assess during the course of their day, everything from shops, subdivision, garages and factories through to boat moorings, air discharges, farm ponds and septic tanks.

In my view treating major infrastructural investment in such a piecemeal and uncoordinated way is quite inappropriate. It fails to address the importance of such assets for the sustainable management and economic development of the region. I also suspect it fails to deliver optimum environmental outcomes.

Now various solutions might be put forward to improve integration between infrastructural investment and consenting. The Regional Growth Forum and Regional Land Transport Strategy have at least brought local government in the region together to consider the major issues in a co-ordinated manner. In isolation however these documents and the forum itself lacks teeth. These are merely starting points.

One option might be to return to the days of a National Development Act to promote major infrastructural projects and sweep them through the consent process. I personally don't support such an approach. In my view the environmental and social effects of infrastructural development do warrant careful evaluation and the communities effected by major development deserve the right to participate in the decision making process.

Another option which I think could be explored is to use the call-in powers of the Minister under Section 140 of the RMA to recognise that a project has national significance.

"Minister's power to call in applications of national significance"

(1) Where the Minister considers that a proposal is of national significance, the Minister may (whether or not an application for any resource consent has been made in respect of that proposal) direct that he or she will decide any particular application, or all applications, for resource consents in respect of that proposal in accordance with section 141.

(2) In considering whether a proposal is of national significance, the Minister may have regard to any relevant factor including whether the proposal -

(a) Has aroused widespread public concern or interest regarding its actual or likely effect on the environment (including the global environment); or

(b) Involves or is likely to involve significant use of natural and physical resources; or

(c) Affects or is likely to affect any structure, feature, place, or area of national significance; or

(d) Affects or is likely to affect more than one region; or

(e) Affects or is likely to affect or is relevant to New Zealand's international obligations to the global environment; or

(f) Involves or is likely to involve technology, processes, or methods which are new to New Zealand and which may affect the environment; or

(g) Results or is likely to result in or contribute to significant or irreversible changes to the environment (including the global environment); or

(h) Is or is likely to be significant in terms of section 8 (Treaty of Waitangi)."

To date this section of the Act has been limited in use, focusing on assessment of projects with environmental effects of potentially national significance. There is nothing in the section however that I can see which would prevent the Minister from

calling-in major infrastructural projects of national significance for specific evaluation. Such an approach might enable projects to be given a more integrated assessment at least from the consenting perspective. For example, it might be recognised that the adverse effects of a major infrastructural project simply cannot be avoided and rather than seek to achieve partial site specific mitigation by say landscaping, noise controls or such like, the Minister might be freer to consider a far more strategic approach to mitigation such as requiring the infrastructure provider to off-set his or her adverse effects by the provision of a major 'public good' type project elsewhere (perhaps a contribution to regional parks, transport infrastructure or habitat conservation in our national parks for example).

Having said this, the Minister's call-in powers as they are currently drafted would do little I suspect to aid strategic infrastructural planning which needs to take place well in advance of the consent process. Nor indeed is it the Minister's job to plan for such infrastructure.

A third option, which I admit is still in its infancy as far as my thinking is concerned, would be to develop a special approach and protocol and perhaps even a designated agency or advocate responsible for "projects of regional significance".

In my view this would give major infrastructural projects the early recognition they deserve and facilitate an integrated and staged approach to feasibility investigation, options evaluation, consenting, design and development over a number of years.

Whilst I freely admit that the implications of such an approach warrant far more detailed assessment,

I do see merit in establishing an inventory of "projects of regional significance" and establishing an integrated approach to their consenting in particular.

Why should a project like the proposed Weiti River Crossing succeed in securing a land use designation after several years of consultation, assessment and hearings only to be constrained by the need for perhaps 15-20 additional individual resource consents plus appeals on the designation itself? Could better environmental outcomes be achieved if the regional significance of this

project and others of similar scale were recognised early on and the Assessment of Effects process had regard to wider strategic mitigation options than can be recognised by the Regional Council when imposing conditions on each of these 15-20 individual consents for earthworks, sediment control and so on?

Examples of such integrated management are available from overseas legislation. Tasmania has adopted many of the principles and purposes of New Zealand's RMA but in addition has included a statute known as the "State Policies and Projects Act 1993". This Act enables the relevant Minister to declare a project to be of "State Significance" if it possesses certain key attributes:

"For the purposes of this Part, a project is eligible to be a project of State significance if it possesses at least 2 of the following attributes:

- (a) *significant capital investment;*
- (b) *significant contribution to the State's economic development;*
- (c) *significant consequential economic impacts;*
- (d) *significant potential contribution to Australia's balance of payments;*
- (e) *significant impact on the environment;*
- (f) *complex technical processes and engineering designs;*
- (g) *significant infrastructure requirements."*

Once a project has been declared of state significance the proponent can be directed to prepare an "Integrated Impact Statement" for the project in accordance with prescribed guidelines.

The consent process from here on is co-ordinated in an integrated manner with an "Advisory Council" considering submissions and recommending to the Minister whether consent should be approved declined and/or subjected to conditions.

One possible drawback I see with the Tasmania model is a lack of appeal rights, however the use of an independent, technical Advisory Council should ensure that all relevant issues and matters are fully addressed before a recommendation is issued for the Minister's consideration.

So, how could such a model be introduced to the Auckland region, or indeed other regions of New Zealand with major

infrastructural issues?

Perhaps Infrastructure Auckland or a similar body could be firstly charged with developing an inventory of projects of regional significance. This inventory could be released for public submission and local community consultation before it is finalised. The inventory would need regular review. Once on the inventory all parties would recognise that the project will be treated as a special case in terms of investigation and consenting. This does not mean that the project would be fast-tracked, but rather it would be subjected to an "Integrated Impact Statement" and a single consenting mechanism covering land use designations and all necessary regional or local resource consents.

I like the Tasmanian approach of utilising an independent Advisory Council for assessment of the project. Perhaps this Advisory Group could recommend formally to our existing TLA's and Regional Council who would release their decisions and impose conditions as appropriate. Alternatively, maybe there is justification for the decision to be made at a higher level by the Minister for the Environment or a government appointed commission. Perhaps the Environment Court could fulfil such a role.

CONCLUSIONS

Auckland's major infrastructure is either at capacity or will exceed notable thresholds over the next 10 years. Whilst a number of important projects are already underway, a significant number of other projects are needed to maintain our current levels of environmental protection, level of service and economic competitiveness.

In my view there is a need to develop a strategic integrated approach to major infrastructural planning and development. I have outlined the bones of a possible model for a more integrated approach, based on the concept of a protocol for projects of regional significance.

The merits or otherwise of such an approach warrant detailed assessment. In my view it is timely to debate the way we plan for and consent to major infrastructure projects given the thresholds which are quickly being reached and given other reform measures which are taking place such as amendments to the RMA, roading and local government reform. I commend organisations such as Winstone Aggregates and the NBR for opening debate on this vital topic and I look forward to participating further 