Appellants	**Nelson Intermediate School, Victory School, Victory Kindergarten and Auckland Point School and Others; Nelson Transport Strategy Group (Nelsust Incorporated) and Bieleski, IP and JJ; Nelson City Council; Foodstuffs (South Island) Properties Limited**
Applicant	**Transit New Zealand**
Decision Number	C035/04
Court	Judge JA Smith; SJ Watson; DH Menzies
Judgment Date	26/03/2004
Counsel/Appearances	Bacon, FC; Beckett, KO; McFadden, NA; McNeill, TJ; Milne, PJ; Owen, C; Philp, JRM
Cases Cited	Auckland Volcanic Cones Soc Inc v Transit New Zealand 31/03/03, Venning and Smellie JJ, HC Auckland AP123-SW02, [2003] NZRMA 316, 8 NZED 393; Bayley v Manukau CC 22/09/98, CA115/98, [1999] 1 NZLR 568, [1998] NZRMA 513, 3 NZED 772; Beadle v Minister of Corrections A074/02, 7 NZED 394; Bungalo Holdings Ltd v North Shore CC A052/01, 6 NZED 547; McGuire v Hastings DC 01/11/01, PC43/00, 8 ELRNZ 14, [2001] NZRMA 557, 6 NZED 819; Marlborough Ridge v Marlborough DC C111/97, 3 ELRNZ 483, [1998] NZRMA 73, 2 NZED 758; New Zealand Rail Ltd v Marlborough DC C072/92, [1994] NZRMA 70, 1&2 NZPTD 362; Rangi Ruru Girls School Board of Governors v Christchurch CC C130/03, 9 NZED 58; Tumapuhiaarangi Hapu Me Ona Hapu Karanga v Carterton DC 25/06/01, Chisholm J, HC Wellington AP6/01, 6 NZED 743; Waimairi DC v Christchurch CC C030/82; Wymondley Against the Motorway Action Group Inc v Transit New Zealand 17/09/03, Williams J, HC Auckland CIV2003-404-38, 9 NZED 69; Takamore Trustees v Kapiti Coast DC 04/04/03, Ronald Young J, HC Wellington AP191/02, [2003] 10 NZRMA 433, 8 NZED 587
Statutes	Land Transport Management Act 2003; Public Works Act 1981; Resource Management Act 1991, Part II, s5, s5(2), s5(2)(a), s5(2)(b), s5(2)(c), s6, s7, s7(b), s7(c), s7(f), s7(g), s8, s20(1), s104, s104(1)(a), [s120], s166, s167, s168, s169, s171, s171(a), s171(b), s171(1)(a), s171(1)(b), s171(1)(c), s171(1)(d), s172, s174, s175, s176, s176(1), s176A; Resource Management Amendment Act 1993, s112
Full text pages:	67 + 27 pgs annexures

Keywords
designation; health effects; pedestrian safety; road; public interest; social wellbeing; state highway; sustainable management; traffic

Significant in Law, s7(b) RMA
It is necessary to examine alternatives to a proposal when examining efficiency in relation to the efficient use and development of natural and physical resources.

SYNOPSIS

This was a decision on appeals relating to Transit New Zealand's ("Transit's") application to designate an area of land for state highway purposes as part of ongoing arterial route development between Nelson and Richmond. The project, known as the Southern Link ("SL"), would involve new road development on railway reserve land and the upgrade of existing roads to create a new route for SH6 between Haven Road and Whakatu Drive.

Transit lodged a Notice of Requirement with the Nelson CC in July 2000 and the hearing before Commissioners was undertaken in November 2000 and November 2001. The Commissioners recommended that the designation be withdrawn as it failed under Part II RMA on the grounds of air quality and health risks. Transit chose not to accept this recommendation and confirmed the designation under s172 RMA.

The Court recognised in a general sense that there would be a beneficial road capacity increase to the network between Nelson and Richmond. However, the Court had major concerns about the proximity of schools to the proposed route, potential effects on pedestrian safety and issues of social severance caused by the major road intersecting Nelson communities. Air quality issues were also a concern. The Court concluded that the designation did not meet the broad purpose of sustainable management and there would be no significant benefit in switching SH6 from its existing route to the SL. The court also concluded that it was necesary to examine alternatives to the proposal when examining efficiency in relation to the efficient use and development of natural and physical resources [10 ELRNZ 388 at 13].

The Court agreed with the Commissioners' conclusion that the SL requirement should be cancelled on the basis that it was fundamentally the wrong place to put a state highway.

As this was a public interest matter, all parties accepted that costs should lie where they fell.

FULL TEXT OF C035/04

Introduction

[1] How far is the Court able to go in examining the merits of a designation for a public work?

[2] Transit New Zealand (Transit) seeks to designate an area of land by way of a Notice of Requirement (NOR) to provide for 2.8 kilometres of new road and utilise a further 2.8 kilometres of the existing road network to a total 5.6 kilometres (the Southern Link). In addition, the route is proposed to utilize part of the existing road network to total 5.6 kilometres in length. The Southern Link project is part of the planned and on-going arterial route development between Nelson and Richmond. It is expected the Southern Link would not be constructed for 10 years. While planning and preliminary design funding is agreed, the construction phase of the project has yet to be approved.

[3] The Southern Link is proposed to be designated *for State Highway purposes*. It is assumed that the existing length of State Highway 6 between Tahunanui/Whakatu Drive and Wakefield Quay (Rocks Road) would become part of the local roading network administered by the Nelson City council (the Council) as the road controlling authority once the Southern Link was operational.

[4] It is common ground that growth is occurring in both Tasman and Nelson, increasing traffic congestion. To relieve this congestion, improvement projects already undertaken include the Stoke and Richmond Bypasses. The Southern Link project would become part of State Highway 6 which is used for both long and short distance trips. State Highway 6 (which includes the Rocks Road route currently) is the primary link between Nelson and Blenheim, as well as between Nelson and the West Coast and Canterbury. State Highway 6 is of regional and district importance. Annexure "A" is a map of the Tasman/Nelson region showing the regional transportation network.

Background

[5] The Southern Link provides a third 5.6km north-south arterial route for traffic between Richmond on the Stoke Bypass and the Nelson Central Business District (CBD). The new alignment generally follows that of the former Nelson railway line (Railway Reserve) for approximately 2.8 kilometres from Whakatu Drive to St Vincent Street where it follows the existing road alignment to Haven Road. There would be some physical works on those roads. The general route is shown on the locality plan in Annexure "B".

[6] The agency taking the lead in this proposal has changed over time. Nelson City Council originally took the initiative. The Council was involved in investigation for a route between Richmond and Nelson and the Southern Arterial was selected in the 1960's. The route including the *Southern Arterial* was designated in the Nelson and Waimea District Schemes.

[7] Subsequent development has been undertaken in sections. The remainder of the Southern Arterial has been divided into two parts: the Whakatu Drive section (the Stoke Bypass) and the Southern Link.

[8] The Council undertook an assessment of alternatives in 1996 and lodged a Notice of Requirement for the Southern Link with the regulatory section of the Council in 1999.

[9] In March 2000, the Transit New Zealand Authority (the Authority) resolved to assume financial responsibility for the project. Accordingly, the earlier NOR and Assessment of Environmental Effects undertaken by the Council were consequently amended to reflect the changes of management and requiring authority. Further consultation and investigation work was also undertaken and the Transit NOR was notified on 29 July 2000.

[10] Prior to Transit assuming management responsibility for the designation process, the Council had proposed designation of only those sections of the route where new road would be constructed, and joining up with existing formed legal road. This reflected the Council's intention to form an arterial road rather than a State Highway and retain the Rocks Road route as State Highway.

[11] With the change of responsibility to Transit, it was decided to designate the route as State Highway. The State Highway designation covers the proposed purpose built road as well as existing Haven Road, St Vincent Street and Whakatu Drive to Annesbrook roundabout (Annexure A).

[12] Transit New Zealand is defined as a requiring authority under section 167 of the Resource Management Act 1991.

[13] Transit lodged a NOR with the Council in July 2000 and stated the following reasons for the designation:

> *The designation is needed in order to identify and protect a new arterial route, which will become part of State Highway 6 into Nelson, and to authorise the land uses that will be associated with it. In particular, the designation is needed to meet Transit New Zealand's objective to provide and maintain a safe and efficient State Highway and to complete the final link between Queen Elizabeth Drive and the northern end of the Whakatu Drive (Stoke*

Bypass). This is necessary as the current road network will be at capacity by 2010 with traffic congestion being significant.

[14] Transit stated that the Southern Link was incorporated within the Regional Land Transportation Strategy which was released following submission and amendment on October 2001.

[15] The Council hearing before Commissioners was undertaken in two stages which commenced in November 2000 and resumed in November 2001. The adjournment was to allow Council to carry out further air quality measurements over the winter of 2001.

[16] The Commissioners recommended that the designation be withdrawn as it failed under Part II of the Act on the grounds of air quality and health risks.

[17] In April 2002 Transit chose not to accept this recommendation and made a decision under section 172 of the Act to confirm the designation with a more restrictive condition regarding air quality mitigation.

[18] In addition, and following appeals to this Court, Transit also determined, at that time, to carry out a formal review of assessed roading network alternatives to provide revised economic and environmental assessments including ambient air quality. That report was then considered and approved by Transit.

The proposed Southern Link route

[19] The objectives of the Southern Link are to improve the functioning of the roading network (including the state highway) by linking the Stoke Bypass at Whakatu Drive with the Nelson CBD and the city's northern outlet (Annexure A) by an environmentally and economically acceptable route that would:

(a) Provide safely for the predicted increase in traffic volumes up to the year 2025;

(b) Reduce to a more acceptable level, the current and projected traffic congestion for those travelling between these areas;

(c) Reduce to an acceptable level, the impact which heavy traffic travelling into and through the City has on road users and adjacent properties.

[20] The Southern Link is to provide for a two lane two-way road with one passing lane between the Whakatu interchange and about the Bishopdale Saddle for vehicles travelling north. While the designation corridor may be wide enough to provide for additional lanes in the future, evidence presented by Transit was that widening would require significant further earthworks. We conclude that the designation is to be limited to two

lanes with one passing lane, as discussed, as that was the basis for assessment of effects.

[21] The Southern Link would provide a roughly equivalent route length to Waimea Road and Rocks Road routes depending on origin, route and destination. The route would enable a 70km/h speed zone over 3.5 kilometres (more than half the route).

[22] The road is to have chip seal surface generally with a friction course surface to reduce noise effects in certain areas.

[23] The alignment can be described in four sections as follows:

(a) Beatson Road to Whakatu Drive/Annesbrook Drive roundabout. This is a 700 metre length of road. It will have two lanes and a cycleway/walkway on both sides. The speed restriction on this section would be 70km/h. The connections to these roads are unclear but there would be a merging with Waimea Road traffic in this section and with Rocks Road route traffic at Annesbrook.

(b) Railway Reserve from Bishopdale Hill to St Vincent Street. This is 2,850 metres of new road with no intersections along the route. The design provides for a horizontal curve at the top of Bishopdale Hill where the road is cut into the hillside. The road is a two lane elevated carriageway with an uphill passing lane on an 8% gradient rising to Bishopdale saddle into the city. An underpass is proposed for Nelson Intermediate School. A cycleway/walkway is proposed below the road on the eastern side. An underpass is also proposed to enable access to the Bishopdale farm subdivision. The speed restriction on this section would be 70km/h. The Railway Reserve is in Crown ownership and Nelson City Council also owns property along the route. When the designation is beyond challenge, Transit intends to purchase required properties under the terms of the Public Works Act 1981. The largest property required is Bishopdale Potteries Ltd.

(c) From railway reserve on St Vincent Street/Halifax Street to Haven Street. This 1600 metre section again follows the existing street alignment. The existing 16 metre carriageway is not intended to be widened as widening work has already been undertaken and the York Stream culverted some years ago in anticipation of the Southern Arterial. At grade access points will remain for residential and commercial properties. In addition, four existing roads (Totara Street, North Esk Street, Beccles Lane and Hastings Street) will be closed along the route. Three intersections in this area are planned to be altered: at Toi Toi Street, Gloucester and Washington, and Halifax/Haven/St Vincent where roundabouts are

to be enlarged. A pedestrian and cycle overpass is proposed at Victory School and a footpath is proposed on both sides of St Vincent Street. Other changes such as the re-design of car parking at local service areas are also envisaged. The speed restriction on this section would remain at 50km/h. The Victory Kindergarten is on the St Vincent section of road.

(d) Haven Road/Halifax Street/St Vincent St roundabout. This 400 metre section utilises the existing four lane arterial road which has a cycle lane in each direction, and a footpath on the western side only. The proposal incorporates upgrading the roundabout at the intersection with Queen Elizabeth II Drive. The speed restriction on this section would remain at 50km/h. Auckland Point School is situated on this section of road.

Description of the Area

Topography

[24] From the northern end from Bishopdale Hill to Haven Road, the Southern Link would traverse an incised valley enclosed on either side by north/south extending hills rising up to 200 metres on the western side and 392 metres on the eastern side. Annexure "C" is a topographical map of the area indicating contours at 20 metre intervals.

[25] The enclosing hills are significant to the valley location because they, together with obstructing ridges at the northern and lower end of the valley, are barriers to air drainage from the valley to the coastline. A partially discrete area of air, such as in this valley, is termed an airshed (following the description of a watershed). The Southern Link enters the airshed from the south and travels its length. Annexure "D" is a map indicating airshed boundaries.

[26] Dr N J de C Baker, is a specialist paediatrician based at the Nelson Hospital who also works for the Nelson District Health Board as a community paediatrician. In addition to being a senior clinical lecturer in Community Child Health, he is also a Fellow of the Royal Meteorological Society. In giving evidence for Nelson Intermediate School and others, he explained the combination of factors which leads to the frequent occurrence of air pollution in this valley. In theoretical terms, local concentrations of air pollution are caused by the strength of the sources as well as the efficiency of dispersion. Day to day variations of pollutants are affected more by the prevailing meteorological, particularly wind, conditions than by changes in strength at source. In winter, the effect of temperature inversions, low wind conditions and increased domestic heating combine to result in a 'pool' of air pollutants in this valley. This local condition has been the focus of air quality monitoring studies in the past three years.

Community

[27] Population demographics are also significant for the Southern Link proposal. Some 1200 children attend the education facilities in the valley. Two primary schools, one intermediate school and one kindergarten are adjacent to the route of the Southern Link. The children generally come from families that have higher levels of socio-economic deprivation and, as a reflection of this, the schools in the area are classified in the lower decile rating group by the Education Department. Victory School, for instance, has a decile 2 rating and is the lowest decile rated school in Nelson. Again, partly as a reflection of social deprivation, 46% of the children attending Victory Kindergarten have been identified as having either health or appreciable special needs.

[28] The community of interest has been identified as both the wider Nelson/Tasman community and the directly affected local community. A number of local communities have been identified as being affected. These vary in population size, geographic extent, functions and local community focus. Annexure "E" indicates the location of residential areas adjacent to the proposed Southern Link and the Waimea and Rocks Road routes.

[29] The six local communities adjacent to the Southern Link, Waimea Road and Rocks Road can be segregated in different ways but they can be described in the following groups:

(a) Nelson Central with a relatively small population of 1380 south of Selwyn Street, is somewhat separated from the proposed route.

(b) Britannia Heights with a population of 4035 extends over three sides of the Port Hills ridge, being bounded by Rocks Road, Wakefield Street, Haven Road, St Vincent Street and Toi Toi Street. The area is steep with circuitous roads through the area and many pedestrian tracks. Sub-groups, defined by topography and access can be identified within this area. At the base of the eastern slopes there are 10 local shops on St Vincent Street, a pre-school and Victory Park. St Vincent Street is currently not a through street and is now a common cycle route with low traffic volumes.

(c) Toi Toi-Broads is the hillside area south of Toi Toi Street. The population in this area is 2739 and a number of Housing New Zealand duplex properties are noted. The Victory shopping area on St Vincent and Toi Toi Streets includes a number of retail shops and community police.

(d) The Bronte-Grampians residential area has a population of 4092 from south of Nelson Central along both sides of Waimea Road to just beyond Boundary road. The area is gently rolling and has three schools: Hampdon Primary and Nelson Boys and Girls Colleges.

There are a number of regional facilities adjacent to Waimea Road including Nelson Public Hospital.

(e) Enner Glenn has a population of 2682 and is located south of Waimea Road. It has three local shops as well as pre-schools and primary schools.

(f) Tahunanui has a population of 5403 with half the population located on the slopes east of the current SH6. This area also has substantial short term visitor accommodation, light industrial, a primary school, local retail shops (15) and community facilities.

The parties

[30] Transit New Zealand was established in 1989 as an Authority with the principle objective:

> *To operate a safe and efficient State highway system.*

State highway improvements are defined as capital projects which in turn have specific objectives. Transit assumed responsibility for this project from the Council in 2000. Transit is the respondent.

[31] The acronym Nelsust stands for Nelson Transport Strategy Group Inc who, in conjunction with I P and J J Bieleski, have submitted appeals to the NOR as well as appeals against the granting of Resource Consent applications relevant to the proposal. One of the objectives of Nelsust is:

> *The advocacy of sustainable transport solutions for Nelson, Tasman and Marlborough regions and their links.*

Mr and Mrs Bieleski are members of Nelsust and residents of the area.

[32] Nelson Intermediate School, Victory School, Victory Kindergarten and Auckland Point School are all education and early learning providers adjacent to or near the proposed route of the Southern Link. In addition, objectors Bishopdale Potteries Ltd and Kervis Holdings Ltd joined with the schools. Bishopdale Potteries Ltd is the owner of land termed the "farm park" adjoining Beatson Road, and some of its land will be required if the Southern Link proceeds. Kervis Holdings Ltd owns the Countdown/ Warehouse site between Vanguard and St Vincent Street.

This group of appellants is concerned that the requirements of Section 171 have not been met and also about the air quality safety and health effects resulting from the Southern Link proceeding.

[33] The Council has had an interest in the Southern Arterial route since the closure of the Nelson railway. The Council is involved in the project because they see the route as serving the City's needs and relieving

congestion on and around the Waimea road route. Council would be undertaking the air quality mitigation proposed for the application.

[34] Mr J R M Philp has been a resident of Nelson since 1970. He has an interest in roading matters arising from 10 years' service on the district roads council. He objects to the proposal on the basis of social and environmental effects and his view that alternatives have not received adequate consideration.

[35] Mr F C Bacon appeared for Nelson Electricity to present an agreement reached with Transit. However Mr Bacon then departed the hearing and appeared again only as an expert witness for Nelsust. As they participated no further, we conclude Nelson Electricity has abandoned its interest in these proceedings.

Existing road routes, volumes and hierarchy in Nelson

[36] Nelson City is a regional centre for an area primarily west and south west of the city. Most of the road transport activity is between Nelson CBD and the south west. This is reflected in the tidal nature of the traffic demand: northbound to Nelson in the morning peak and south bound in the evening peak period. There are currently two arterial routes from Nelson to Stoke, that of the Rocks Road being the SH6 route to Whakatu Drive and the Waimea Road to Stoke Road route. The approximate combined volume on these two routes is 46,000 to 49,000 vehicles per day, and 2900 vehicles/hour during morning or evening peaks.

[37] Waimea Road is the most direct and highest volume route to the south from the CBD although there is evidence of vehicle switching to the SH6 route. This may depend on perceived congestion on either route. Waimea Road is a dual carriage way (with one lane in each direction) carrying up to 28,000 vehicles per day (vpd) of which 3% are heavy vehicles. There is a passing lane at the southern end of this route in the southward direction. There are a number of intersections and private accessways on this route as well as major education and health facilities. Transit's evidence suggests side friction constrains the level of service, as does pedestrian and vehicular activity generated by Nelson College. We were told driving conditions are slow on this route and there are frequent capacity breakdowns from minor interruptions to flow. The route is uphill to Bishopdale Saddle in both directions.

[38] The current SH6 route, Rocks Road/Tahunanui Drive, is the most direct route between the Port and the hinterland south. This road carries some 21,000 vpd along a dual carriage way, one lane in each direction of which about 5% are heavy vehicles. Traffic capacity on this route is constrained by side friction resulting from intersections and many private accessways. The route is essentially flat.

[39] The twin roundabouts at Tahunanui on the Rocks Road route are a frequent cause of congestion and traffic backup. There are also roundabouts near the Nelson CBD which have congestion problems. We observed queuing of vehicles at Annesbrook roundabout and Whakatu Drive at peak times.

Safety and efficiency

[40] Transit evidence was that the Wakefield/Quay Roads section of SH6 has a higher accident rate than for comparable roads in other parts of New Zealand and the roundabouts on both routes are not functioning well because of traffic volume. Side friction or the interference to flow from intersections and private accesses may cause inefficiency, along with high volumes. The two existing routes would be more efficient without side friction and intersections. Whether the Southern Link would improve safety or efficiency is one of the core issues in this case. Unfortunately Transit provided little evidence on these critical issues.

[41] Level of service (LOS) is a concept adopted by the US Highway Capacity manual to compare the relative performance of road sections in terms of their ability to move traffic. It provides an assessment of efficiency by six categories of LOS, from A (primarily light traffic in free flow conditions) to F (over capacity and a breakdown of traffic flow). Transit witnesses told the Court the two alternative routes, Rocks Road and Waimea Road, both have a current LOS assessed at C for much of the day, dropping to LOS of D and E during the weekday morning peak hour period. The current LOS therefore produces some regular queuing for much of the day, with the LOS in peak periods being poor. With anticipated growth in volume of traffic, Transit expects a deterioration in the LOS so that by 2021, unless improvements are made, the routes will be operating at their design capacity limits for most of each day, and substantial delays and a high degree of variability in travel times are anticipated.

[42] The appellants did not contest that, without roading improvement, the current levels of service would fall in future years. The appellant's traffic engineering expert, Mr J Foster, was of the view that:

(1) the existing routes could be significantly improved in terms of their performance;

(2) he doubted Southern Link would achieve any great improvement that could not be achieved on current routes.

[43] In essence some of the issues that arise relate to improvements that will occur to the network peripheral to the construction of the Southern Link. If these were introduced anyway, they would have a significant effect on the traffic patterns, even if the Southern Link was not constructed. The appellant points to the constraints of Whakatu Drive/Waimea Road and

Annesbrook roundabouts and the CBD intersections as being significant constraints on the system whether the Southern Link is constructed or not. When one examines the potential for other improvements to the existing roading system it is argued by the appellants that there are no benefits either in terms of LOS efficiency or in terms of safety from the development. For example, Mr Foster points to the fact that mid-block accident levels for the existing roading network are lower than the national average. Similarly, he compares the Southern Link with other potential improvements to the roading network to conclude the LOS achieved will not be significantly different.

[44] By the time of this hearing Transit accepted that they must compare the Southern Link with realistic options available including upgrading Waimea Road, upgrading Rocks Road, or three-laning both Waimea Road and Rocks Road. This last option would have two lanes dedicated in a southerly direction for morning (AM) traffic and two lanes on the other route dedicated for afternoon (PM) traffic[1]. This was described by Transit witnesses (particularly Mr M L Crundwell, traffic engineer) as the "do minimum" option. This description is wholly unsuitable and arises from it being an enhancement of an earlier alternative of only minor upgrading of some intersections. By the conclusion of this case, however, it was a fully developed option including:

(a) three-laning both Waimea and Rocks Roads;

(b) improving the twin Tahunanui roundabouts;

(c) improving other intersections.

We shall call this option the *three lane option.*

[45] At the heart of this whole argument is the contention of Mr Foster that the provision of six lanes (three lanes inbound and three lanes outbound) can be provided without the construction of the Southern Link.

[46] Having heard all the evidence it appears to us that the prospect of four-laning Rocks Road is fanciful. The Council has permitted the construction of a number of major apartment buildings along the foreshore which make the prospect of acquiring land above the Coastal Marine Area (CMA) to widen the road virtually non-existant. Any extension of the road seaward would involve not only major works in the CMA but also significant practical issues including impacts on the operation of the Port and the channels. Although Tahunanui Road itself could be further widened, this would not significantly improve the capacity of this route.

[47] Because of the way in which calculations were done at absolute peak flow, the tidal nature of AM and PM flows was not fully accounted for in the various models that were put before the Court. This leaves four

alternatives, excluding do nothing (which was for comparative purposes only):

(a) Southern Link.

(b) The three lane option. This is an option for three-laning each of Waimea and Rocks Road, two lanes of one route for AM peak and two lanes on the other for PM peak. Mr Crundwell has only provided for a 50% increase in traffic flow by two-laning the road, rather than doubling present capacity. There is conflicting evidence on some matters of traffic engineering opinion. We prefer the evidence of Mr Foster, namely that in the three-lane option the capacity of the roads would be in the order of 4,500, namely existing capacity (intersection improvement constraints of 1,800 vehicles per hour) plus at least 2,700 from dual lane, possibly up to 3,300 to 3,400.

(c) Four-laning Waimea Road and maintaining Rocks Road as at present.

(d) Intersection and route improvements only. This would involve improving intersections, particularly the twin roundabouts on Tahunanui Road, the intermediate intersections on Waimea Road and attempting, as far as possible, to reduce side friction and improve traffic flow. On this basis we understand that there is capacity with these improvements for both roads together to handle somewhere between 3,300 and 3,800 vehicles per hour at peak. This option was not one proposed by Transit or considered in any real sense until Mr Crundwell was recalled by Transit late in the case. There was significant technical argument from Mr Crundwell against the calculations of Mr Foster, and we are left to piece together as best we can the respective position of the parties. Mr Crundwell appears to accept that with improvements the capacity of the existing two roads without any extra lanes would be (except perhaps at intersections) at least 3,600 vehicles per hour.

[48] Mr Crundwell's estimates for traffic demand volumes in 2011 are 3,700 vehicles per hour (vph) and 4,200 vph for 2021, compared to Mr Foster's 3,300 vph for 2011, and 3,600 vph for 2021. We will discuss how these figures compare with the Southern Link and overall capacities in due course.

The legal framework

[49] The statutory framework for considering issues pertaining to designations under the RMA is as follows:

(a) Sections 166, 175, 176 and 176A set out the legal effect of a designation and state the plan procedures.

(b) Section 166 provides that a designation is a device in a plan to give effect to a requirement made under section 168.

(c) Section 168 sets out the matters which are to be included in a NOR.

(d) Section 171 contains the matters to which regard and particular regard should be had by the territorial authority and the Court. Section 171 is subject to Part II.

(e) Section 174 sets out the appeal process and confirms the Court's discretion in determining the appeals.

(f) Section 175 states that the territorial local authority is to include a designation that is confirmed by the Environment Court in its district plan and any proposed plan as if it were a rule.

(g) In terms of section 176(1) the effects of a designation are to remove any requirement to obtain resource consents otherwise required under the relevant plan; to allow the requiring authority to undertake works or actions in accordance with the designation; and to prevent any other use of land which would prevent or hinder the designation, without written permission of the requiring authority.

The regime of section 171

[50] It was common ground between the parties that the Court stands in the shoes of the territorial authority in respect of its duties under section 171. The parties are also agreed that the unamended Act (that applying to 1 August 2003) is the relevant Act to apply pursuant to section 112 of the transitional provisions of the 2003 Amendment Act. The relevant section 171 reads:

> ***Recommendation by territorial authority—***
>
> *(1) Subject to Part II, when considering a requirement made under section 168, a territorial authority shall have regard to the matters set out in the notice given under section 168 (together with any further information supplied under section 169), and all submissions, and shall also have particular regard to—*
>
> *(a) Whether the designation is reasonably necessary for achieving the objectives of the public work or project or work for which the designation is sought; and*

> *(b) Whether adequate consideration has been given to alternative sites, routes, or methods of achieving the public work or project or work; and*
>
> *(c) Whether the nature of the public work or project or work means that it would be unreasonable to expect the requiring authority to use an alternative site, route, or method; and*
>
> *(d) All relevant provisions of any national policy statement, New Zealand coastal policy statement, regional policy statement, proposed regional policy statement, regional plan, proposed regional plan, district plan, or proposed district plan.*

[51] It is clear therefore that there are in fact four particular areas that must be examined in consideration of a designation under section 171. These are:

(a) Part II of the Act to which all other considerations are subject;

(b) The matters set out in the NOR;

(c) All submissions received;

(d) The matters set out in section 171(1)(a)-(d).

[52] There has been legal commentary on the preamble to subsections 171(a)-(d). Several major conclusions can be reached:

(1) That everything in section 171 is subject to Part II considerations.

[53] As the Privy Council noted in *McGuire v Hastings District Council*[2]:

> *By s 171 particular regard is to be had to various matters, including*
>
> . . .
>
> *(b) whether adequate consideration has been given to alternative routes; and*
>
> *(c) whether it would be unreasonable to expect the authority to use an alternative route.*
>
> . . .

> *Note that s 171 is expressly made subject to Part II which includes ss 6, 7 and 8. This means that the directions in the latter sections have to be considered as well as those in s 171 and indeed override them in the event of conflict.*

[54] Importantly this discussion is had within the context of the discussion in paragraph 21 by the Privy Council of Part II of the Act, particularly sections 6, 7 and 8. After discussing this the Privy Council at paragraph 21 continued:

> *. . . These are strong directions to be borne in mind at every stage of the planning process. The Treaty of Waitangi guaranteed Maori the full, exclusive and undisturbed possession of their lands and estates, forests, fisheries and other properties which they desired to retain. While, as already mentioned, this cannot exclude compulsory acquisition (with proper compensation) for necessary public purposes, it and other statutory provisions quoted do mean that special regard to Maori interests and values is required in such policy decisions as determining the routes of roads. Thus, for instance, Their Lordships think that if an alternative route not significantly affecting Maori land which the owners desire to retain were reasonably acceptable, even if not ideal, it would accord with the spirit of the legislation to prefer that route. So, too, if there were no pressing need for a new route to link with the motorway because other access was reasonably available.*

[55] It is clear to us when considering the context of the Privy Council's discussion of Part II that the Privy Council considered that the powers under sections 5, 6, 7 and 8 could extend to an evaluative consideration of the merits and alternatives for transport routes. It is in that context that the discussion we have already quoted at paragraph 22 of the decision took place.

(2) In the end, the Court must be satisfied that the proposed designation meets the single broad purpose of the Act, namely sustainable management.

[56] Questions of efficiency involving an appropriate comparison with alternatives must arise under section 7(b) of the Act, as must questions of finite characteristics of natural and physical resources 7(g); the quality of the environment 7(f); amenity values 7(c); and the various matters identified in sections 6, 7 and 8 generally.

(3) Section 171 also requires the Court to have regard to not only the matters set out in the Notice of Requirement (NOR) but all submissions.

[57] Having regard to the over-riding requirement for the designation to meet the requirements of Part II and section 5 in particular, it is difficult to accord any particular hierarchy to these requirements compared with those in subsections (a) to (d) to which there must be particular regard. We cannot read the introduction to section 171 as requiring the Court to ignore the NOR or the submissions of the parties, or the issues raised therein. As with matters under Part II generally, the application of any finding in respect of these various aspects of section 171 are matters that must be integrated into a final decision under section 5 to meet sustainable management.

(4) The application of section 171(a)-(d)

[58] It is in this context that we must examine the section 171 subsections (a) to (d). There has been significant argument before the Courts as to the meaning of section 171(a), and whether the work must be reasonably necessary or only the method of designation. This matter was discussed in some detail in the High Court decision of *Wymondley Against the Motorway Action Group Incorporated v Transit and Manukau City Council*[3]. In particular the High Court concluded[4]:

> *Accordingly the correct interpretation of s 171(1)(a) must be that it requires particular regard to be had to whether the designation is reasonably necessary to achieve the public work's objective, not whether the work for which the designation is sought is reasonably necessary.*
>
> *[30] That is what s 171(1)(a) said. Syntactically it could not be read as directing particular regard, first to whether the public work for which the designation was sought was reasonably necessary and secondly, to whether the designation sought was reasonably necessary to achieve the objective of the public work. The subsection only referred to one reasonable necessity to which particular regard was to be given. That reasonable necessity was grammatically tied to whether the designation achieved the objective of the public work. The subsection did not say that the reasonable necessity for the public work was to be considered.*

[59] The Court disagreed with the line of authority in the Environment Court in *Bungalo Holdings Ltd v North Shore City Council*[5], also adopted by this division in its decision *Rangi Ruru Girls School Board of Governors and Others v Christchurch City Council and Others*[6], but without reference to *Wymondley* which was delivered on 17 September 2003.

[60] The grounds of appeal in *Wymondley* were restricted in part to an examination of the meaning of section 171(1)(a) rather than matters that may be considered by the Court taking into account the preceding words in section 171. Although we remain concerned at an interpretation of section 171(1)(a) which would constrain the consideration to designation as a method only, we conclude that the preceding words in section 171 require an overall evaluation of the appropriateness of the application to meet the purpose of sustainable management. On the authority of *Wymondley* it must therefore be that section 171(1)(a) does not apply the evaluation under Part II. This does not mean that *Wymondley* is authority for the proposition that such an evaluation cannot take place or that section 171(1)(a) prevails over Part II. Accordingly the suggestion by the applicant that there is no evaluation of the necessity of the Southern Link under section 171(1)(a) may be correct in light of *Wymondley*. However Transit must still establish that the Southern Link meets the purpose of the Act under Part II and section 5 in particular.

[61] Underlying Transit's submission in this regard is an assumption that if the merits of designation are not to be considered under sections 171(a) to (d) they are not to be considered by the Court at all. With respect, we can see no basis for that conclusion in light of the clear wording of the Act. Nor can we see the decision in *Wymondley* as establishing that as the correct approach. We did not understand anything in *Wymondley* to contradict the Privy Council decision in *McGuire v Hastings District Council* which we have already cited.

[62] If there was any doubt as to whether the overriding applicability of Part II is relevant to the consideration of this application, then the decision of Yenning and Smellie JJ in *Auckland Volcanic Cones Society Incorporated v Transit New Zealand Limited*[7] is clear on this issue. The entire discussion in that decision is predicated upon section 171 being subject to Part II. The Court put the matter in this way[8]:

> *[59] The matter can be considered another way. The specific considerations in s 171 (alternative methods or routes in particular) are subject to Part II of the RMA. Parties involved in the administration and application of the RMA are very familiar with the requirement to have regard to other considerations subject to Part II. On an application for resource consent, consent authorities and on appeal the Environment Court must have regard to the considerations in s 104 of the RMA. The s 104 considerations are expressed to be subject to Part II. There is a well-established body of case law confirming the primacy of Part II and how that is applied in relation to the s 104 consideration. The drafting technique used in s 171 to provide the considerations in that section are subject to Part II is not unique to s 171.*

[60] In the present case the effect of ss 171 and 174 is to require Transit and the Environment Court on appeal to have particular regard to the matters at s 171(1)(a), (b), (c) and (d) but always subject to Part II of the RMA.

[61] Mr Cavanagh submitted that when having regard to s 171, at each stage of consideration of s 171, the Court ought to test each alternative against Part II. We do not read s 171 nor the comments of Lord Cooke of Thorndon in the ***McGuire*** *case as requiring the Court to adopt that approach. Lord Cooke of Thorndon's reference to the strong directions (in ss 6-8) to be borne in mind at every stage of the planning process is a reference to the obligations on a requiring authority, the Environment Court and this Court on appeal to have regard to those considerations. For the reasons given earlier we are satisfied that the Environment Court did not misdirect itself when considering the requirement to consider the alternatives under s 171(1)(b) in particular, subject to Part II.*

[63] We intend to adopt the approach of examining the matter sequentially as follows:

(a) the applicability of sections 6-8 and the various factors of section 5 without reaching an overall integrated decision as to sustainable management;

(b) considering the matters set out in the NOR and their application;

(c) considering the submissions received; and

(d) considering the four limbs of section 171(1)(a)-(d).

[64] The final step will then be to integrate all issues and facts in order to reach a decision as to sustainable management.

Approach to Part II

[65] As with many of the other issues discussed under this heading, there is considerable overlap between the various sections. We have determined that we should discuss the matters under the following Part II headings:

(a) efficiency (section 7(b));

(b) social, cultural and amenity issues (sections 5(2) and 7(c));

(c) noise (sections 5(2) and 7(c));

(d) air quality (section 5(2)(b)), quality of the environment (section 7(f)), health effect (section 5(2)), mitigation package proposing no net increase in PM_{10} emissions (section 5(2)(c));

(e) safety (section 5(2)).

Section 7(b) — Efficient use and development of natural and physical resources

[66] It is clear that the Court is not concerned with the financial viability of the project[9]. However we do not understand those decisions to mean that the Court is not concerned with the relative efficiency of the project, both in economic terms or in practical terms, ie whether it achieves its objectives. The potential to apply section 7(b) to assess methods has been recognised by the Court[10].

[67] We conclude that to examine efficiency in this case it is necessary to examine alternatives. Efficiency must bring into question the effect of the change compared with the existing situation. Because section 7(b) is concerned in part with the efficient development of resources, one assumes that it must be open to consider, in appropriate cases, a comparison with other developments. In our view the discussion of the Privy Council in *McGuire* is relevant when it stated at paragraph 21:

> *So, too, if there were no pressing need for a new route to link with the motorway because other access was reasonably available.*

[68] As we shall discuss in due course, it is conceded that a consideration of alternative routes can be undertaken under section 171(1)(b). We conclude that, in any event, such a consideration can be undertaken in examining questions of efficiency under section 7(b) of the Act.

[69] Surprisingly in this case there was little evidence given to us as to the comparative efficiency of this route with any alternative. We accept as a fact that the Southern Link would represent part of a more efficient method of moving vehicles from the Stoke/Richmond area to the CBD in addition to the existing situation. However, so would any improvement to Waimea Road or Rocks Road routes.

Network efficiency

[70] Looking at the matter in broad practical terms, it is difficult to envisage that dividing traffic into three streams, with the consequent conflicts at the points of separation and rejoining is an efficient development in this broader sense. For example, we remained concerned throughout the hearing at how three separate streams of traffic moving to the south would flow into the Stoke/Richmond area through the Waimea/Whakatu Drive and Annesbrook intersections. There would be a

necessity to merge the Waimea Road traffic with the Southern Link traffic. An immediate decision regarding lane changes would then need to be made by drivers, depending on whether or not they were taking the Whakatu Drive or the Stoke Road route. Because these roundabouts are only some 300 metres apart, there would be a significant traffic conflict. If these were introduced into a roundabout situation, southbound Waimea Road traffic would need to give way to Southern Link traffic which would be turning left or right, depending whether they were taking the Whakatu Drive or the Stoke Road route. If there was a double flyover arrangement, then there would be a merging of the Stoke bypass traffic, followed by an introduction of the Southern Link traffic to the Whakatu Drive traffic, in very close proximity to the Annesbrook roundabout. At this intersection, traffic heading south would then need to give way to the Rocks Road traffic on their right. Having regard to:

(a) the existing delays to the Waimea Road traffic at Annesbrook, which we observed at peak times; and

(b) the introduction of more traffic to the Annesbrook intersection, which must give way to the Tahunanui Road traffic

there is likely to be significant exacerbation of the delays at the Annesbrook intersection. This could lead to a traffic tail for southbound cars, both onto Waimea Road (which occurs at present) and onto the Southern Link. Even assuming those were resolved, our observation was that at peak times traffic is still constrained on the Whakatu Drive route with the traffic tail backing up onto the limited access road from the lights at Richmond.

[71] While the Court appreciates that detailed design work has still to be undertaken, we are of the view that there are existing constraints in the network beyond this section of road which would need to be addressed.

Intersection efficiency

[72] Similarly, when we examine the twin roundabouts at Tahunanui, it is clear that these significantly constrain traffic along the Rocks Road route. That is conceded by Transit who says that the intersections currently handle around 1,300 vehicles at peak hour, well below the ability of the route to handle approximately 1,800 vehicles per hour. One is therefore faced at peak time traffic (PM) with long traffic tails on Rocks Road and relatively open road beyond the roundabouts on Tahunanui to Annesbrook. A similar reverse situation is experienced in the morning.

Traffic efficiency

[73] We are not satisfied that the Southern Link route is any more efficient in terms of distance travelled, fuel use, travel time, and emissions. The routes are all roughly equivalent, depending on the point of origin and

the point of destination. One assumes that most drivers make their decision as to route, depending on their origin and destination. Although no conclusive evidence was given, the existing preference of truck drivers for the Rocks Road route is probably based on two factors:

(1) Rocks Road route is relatively level and therefore does not require significant gear changes and associated fuel use in navigating the hills on Waimea Road;

(2) It represents the most direct route for most traffic to the Port which is just off Haven Road.

Port traffic

[74] While the objectives of the NOR are intended to address traffic congestion, we were given evidence they were influenced by the current and projected increase in goods travelling by road to and from Port Nelson. Port Nelson moved 2.5 million tonnes of cargo in the 2002 financial year and expect to double this figure within the next decade. The Port regards its function as an important nodal point for transport.

[75] The Southern Link proposal is intended to integrate with a new entrance to the Port in the vicinity of Wildman Ave and Vickerman Street according to the Chief Executive Officer of the Port Company.

[76] However, it is not intended that heavy vehicle access to Port Nelson would be prevented from using the current Rocks Road route. The current access routes into Nelson would be retained to result in two parallel access roads, that of Waimea Road and the Southern Link, merging near Whakatu Drive, Waimea Road roundabout and a third route along the Rocks Road route. This is envisaged by Transit as an integrated network of three arterial roads.

[77] We can see no increased efficiencies with the Southern Link route that would attract heavy vehicles to the hill climb and longer route. It may be that the movement by the Port of its entry to a more central position (on Haven Road) may influence those decisions to some extent. That involves a future change.

Lane availability

[78] Looking at the routes directly, we prefer the evidence of Mr Foster, who concluded that six lanes, however provided, would give nearly equivalent capacity. We accept his view, which we did not understand to be seriously disputed by the Transit engineers, that performance of the network is governed by its weakest link. Thus the improvement of the Tahunanui twin roundabouts could significantly increase the capacity of that route to at least 1,800 vehicles per hour, and potentially more depending on the redesign. The Rocks Road route would then be constrained by the next most

restrictive feature, possibly Annesbrook roundabout, or the narrowing and side friction around the Rocks Road area. Similarly measures such as "no parking" clearways on both Waimea and Rocks Road may improve the efficiency of the roading network without other significant improvements.

[79] In the end Transit witnesses, particularly Mr Crundwell, acknowledged that there were a number of steps that could be undertaken to improve the efficiency of Waimea Road and Rocks Road and lead to them each being three-laned. The three lane option is the equivalent of adding the extra two lanes of the Southern Link according to Mr Foster. The argument then fell to one of the comparative efficiency of these two routes. Quite simply, we conclude that Mr Crundwell's selection of a 50% increase in the peak traffic flow for the additional lane on each of Rocks and Waimea Roads is not based upon anything more than opinion after consultation with Mr Kelly and other traffic engineers involved in the case.

[80] Mr Foster told the Court in supplementary comment on Exhibit F which (for consistency) we annex to this decision and mark "F"[11]:

> *In other words, we are going from do nothing, which is four lanes to do something, which is six lanes; we would expect a 50% gain in efficiency. If we don't get 50% gain in efficiency there is something wrong with our detail design. Now, that is what I get.*

[81] Mr Crundwell told us[12]:

> *I made a judgment of 50% and confirmed that with Tim Kelly and . . .*

[82] Mr Foster though, was discussing a different scenario from that discussed by Mr Crundwell. Mr Crundwell discussed capacity of a road in terms of 1800 vehicles per hour for one lane and 2700 (in other words an increase of 50% in traffic numbers) for two laning (rather than simply double the capacity).

[83] In cross-examination Mr Crundwell acknowledged that he had used the NAASRA (National Association of Australia and State Roads Authority) criteria and referred to Chapter 4 of the publication 'Uninterrupted Multi-lane Roads' rather than Chapter 7 'Urban Arterial Roads with Interrupted Flow'. Chapter 7 refers in its Introduction to:

> *Interrupted flow with . . . major intersections and with interruptions from cross and turning traffic at minor intersections.*

Chapter 4 relates to "*along multi lane roads*" which have two or more lanes in each direction and a median strip or physical separation. We conclude that his adoption of Chapter 4 in this case was incorrect and may have influenced his conclusions.

[84] We are left without any adequate explanation as to why a two lane road or a multi lane road in one direction (in this case two lanes in one direction) would perform worse than two separate lanes in the same direction. We are left with no explanation as to why a north bound lane on Waimea Road, the Southern Link and Rocks Road would perform differently than two north bound lanes on Waimea Road and one on Rocks Road. Although we would accept that where there is no side friction at all a single lane would perform better (ie the Railway Reserve section), that cannot be the case for the Southern Link. Southern Link will be controlled by the traffic capacity of St Vincent Street and, of course, any intersections on it.

[85] In the end we conclude that Mr Foster is correct, namely, though there may be slightly better performance from the three individual lanes in each direction compared with multi-laning one route to obtain three lanes, those differences would not be significant if there was contemporaneous intersection improvement.

[86] Our conclusion therefore on this aspect of efficiency is that while any improvement including the Southern Link would constitute an increase in efficiency, we are not satisfied that the proposed route is more efficient than other realistic and cost effective alternatives.

[87] Mr Foster also drew particular attention of the Court to Exhibit F and its volume to capacity ratio. He told us that:

> *It is also, when looked at by an economist, the ratio of supply to demand or rather the demand to supply which is very important in macro economic theory, in terms of the response of users of the facility or a service.*

He told us that the capacity will be determined by the intersection on the route that has the greatest conflict.

[88] In terms, therefore, of economic efficiency it must be that whatever the level of demand (which was in dispute before the Court), the capacity available when comparing three laning Waimea and Rocks Road and the Southern Link would be roughly equivalent. We accept that there may be a minor advantage of the Southern Link in terms of traffic efficiency but a disadvantage in terms of economic efficiency, ie higher cost for the Southern Link compared with the other options.

Sections 7(c) and 5(2) — Social, Cultural and amenity values

Severance of the community

[89] St Vincent Street is currently a relatively low volume local road in the Nelson roading hierarchy. Some stretches of the road have been formed to a significant width, in anticipation, we were told, of the southern arterial

route some years ago. It appears to have been constructed to a high standard, and it could therefore be regarded as expansive having regard to its current level of use. We accept evidence that the road is currently easily passable by young and old alike; and that the vast majority of traffic in the area is local traffic with peaks being related to transporting children attending kindergartens and schools in the area. There is a good sized community park on the eastern side with playgrounds associated with both Nelson Intermediate and Victory School further to the south. The Railway reserve currently provides a walkway and/or cycleway for members of the public and an informal route for children travelling to school. People access the lower City area via the Railway reserve from the steeper land above the Railway reserve as well as the route via upper St Vincent Street, at or around its junction with the Railway reserve and then enter Victory School or lower St Vincent Street. Shops at the corner of Toi Toi and St Vincent Streets represent a focal point (particularly with the proximity of the park) for the local community. This occurs not only as a result of its location in the lower valley but by virtue of its proximity to schools and as an access route to the CBD.

[90] Ms N Barton, a planner, gave evidence for Transit as to social severance issues. Her comparison was with the levels of existing severance for people living in Rocks Road or Waimea Road areas and examining the overall level of severance as a result of the construction of the Southern Link. Other witnesses, including several residents and Ms J M McNae, a planner called for the appellants, disagreed with her conclusions as to the level of severance that would occur as a result of the construction of the Southern Link on St Vincent Street, and said it was inappropriate to compare this with levels of severance already occurring elsewhere.

[91] Faced with this difference of opinion the Court must reach a conclusion as to how best to approach the matter. Quite simply (and for the moment putting aside permitted baseline issues) construction of the Southern Link would not in our view alter in any significant way the levels of severance already experienced on the Waimea Road and/or Rocks Road routes. It is clear that in all traffic scenarios, including the Southern Link route, these two routes would continue to carry significant amounts of traffic. We accept that with the two-laning of either the Rocks Road or Waimea route for an AM or PM peak, there would be an increased impact for a short period of the day. However, this level of severance on Waimea and Rocks Roads already exists.

[92] In comparison, we cannot conclude that there already exists social severance on St Vincent Street and the Railway reserve to the same degree. In effect there will be a fundamental change in the nature of this community as a result of introducing in excess of 20,000 vehicles a day through the centre of it. In reaching that conclusion we find:

(a) That St Vincent Street constitutes a natural focus to the local community;

(b) That both the Railway reserve and St Vincent Street currently assist in connecting the east and west portions of the community;

(c) That the natural catchment includes the Toi Toi area and the hill area above St Vincent Street and the Railway reserve;

(d) That the catchment for the schools depends on these areas and a significant number of pupils attend the school from the western side of St Vincent Street/the Railway reserve.

[93] We conclude that the Southern Link will have a significant impact upon the amenity and social cohesion of the area. We also accept the evidence on behalf of the schools that a significant number of the pupils from the west of St Vincent Street and the Railway reserve walk to school and that the school forms not only a social but a cultural focus in the local community. During our site visits we saw numbers of school aged children playing around the school grounds out of hours, and socialising in various ways around the Railway reserve and streets. We conclude that currently St Vincent Street and the Railway reserve provide connecting linkages for the local community and that these will be significantly severed by the introduction of the Southern Link.

[94] Although it is intended to install an underpass in respect of Nelson Intermediate and an overpass of Victory Street, we do not believe that these would adequately overcome the severance issues that occur. To a large extent the issues are social and psychological, relating to how people perceive their community. We conclude the Southern Link (particularly as a State Highway) will constitute a barrier, not unlike that of a river.

[95] We accept that pedestrian phasing of traffic lights for Toi Toi/St Vincent Street intersection could assist in providing connection for the local community to the shopping area. However, immediate tensions arise as to the provision for the local community versus the clear demands for peak hour traffic flow that constitute the basis for the existence of the Southern Link. To compromise pedestrian phases (ie not permitting all pedestrians to cross in all directions at the same time or allowing pedestrians to cross at the same time as turning traffic) will introduce further conflicts and restriction of the community's inter-connection. We are particularly concerned that there would be a number of students needing to cross both West Toi Toi and St Vincent Streets to get to Victory School and the potential for traffic conflict. The longer the time between pedestrian phases (to increase the traffic flow on St Vincent Street) the more the prospect there is of children avoiding the pedestrian crossing and seeking to cross St

Vincent Street at some other point. There are significant safety issues arising which we will discuss shortly.

Noise

[96] It was conceded by Mr N I Hegley, an acoustic expert called for Transit, that there were significant noise issues arising in respect of the relevant schools. In respect of Auckland Point School we accept that those noise levels are already largely encountered from the existing road traffic use. We would have expected that traffic level to increase in any event having regard to the position of Haven Road and its place in the road hierarchy. Notwithstanding the views of the school to the contrary, and of Mr N R Lloyd, an acoustic consultant called for the school, we have concluded that there will be little change in practical terms to the noise levels that might otherwise be expected from the operation of the nearby roading. We reach this conclusion because:

(a) Trucks accessing the Port are still likely to use the Rocks Road route;

(b) The designation of this route is only a consequence of movement of the State Highway from the Rocks Road route to the Southern Link and makes assumptions about the amount of through traffic that will use this link in preference to Rocks Road.

The current noise levels experienced in the Auckland Point School grounds vary between 68 dBA and 71 dBA from 10.00am to 3.00pm, giving a one hourly L_{eq} average of 70 dBA and a 24 hourly L_{eq} of 67 dBA. Mr Hegley accepted that any calculation should be based on school hours of 9.00am to 3.00pm to calculate L_{eqs} appropriate for schools.

[97] Mr Hegley accepted the Australian Standard AS2107:1987 recommends a satisfactory daytime indoor level of 40 dBA L_{eq} for classrooms with 45 dBA L_{eq} as a maximum noise level. Mr Lloyd argued that the figure should more appropriately be 35 dBA L_{eq} for internal noise levels. Whatever may be the appropriate desirable level it is clear that Auckland Point School is already receiving internal noise levels greater than this as Mr Hegley calculated a figure of 52 dBA based on open windows at the current time.

[98] Mr Hegley suggested that there be an internal level adopted for all schools rather than an external level. The criticism of this by other witnesses was that the children spend a great deal of time in the playground, both during recess and for school activities including sport.

[99] In respect of Auckland Point School, we are satisfied that with appropriate mitigation conditions noise levels comparable to the current could be achieved both internally in the school and externally. The question

of whether a level lower than that current experienced should be achieved is a matter for later assessment if necessary.

[100] When we come to examine Nelson Intermediate and Victory Schools, their situation is significantly clearer. There is no doubt in our minds that the noise levels currently received both externally in the school grounds and in the classrooms do not represent significant noise intrusion. In brief, Mr Lloyd, an acoustics consultant for the schools, accepts generally that while mitigation conditions controlling internal levels could be imposed, and the critical issue is what levels should be achieved internally. However, proposed condition 23A (conditions annexed hereto and marked "G") suggests 45 dBA L_{eq} (one hour). We were later told this was with windows open 100 millimetres. Mr Lloyd recommends 35 dBA L_{eq} one hour for classrooms, 40 dBA L_{eq} for administration buildings, and 45 dBA L_{eq} for the gymnasium next to the school route.

[101] There was some discussion as to whether there were any practical proposals to prevent noise emanating from the Southern Link reaching the school grounds. The Southern Link is to be higher than the Nelson Intermediate and Victory Schools, with a long length to the Southern Link directly adjacent to the schools. Considering the proximity of the sources we are not satisfied that there are any practical measures that would significantly reduce the amount of noise being received in the school grounds. Although it may be possible to ensure there is no rebound from the western side of the Southern Link and, possibly, install a wall along part of the length of the Southern Link, we are not satisfied that this would make any significant difference to the noise levels that are received. In particular we note that many truck exhausts would be higher than the level of a fence, and that those travelling to the south would be travelling uphill in lower gears, with correspondingly higher noise emissions.

[102] Overall we have concluded that the Southern Link proposal would have a significant noise effect on Victory School and Nelson Intermediate School in terms of the change to the noise levels received within the playgrounds of those schools. Although we accept that an appropriate mitigation condition could be imposed to reduce classroom noise we consider there would still be an amenity effect to students and teachers both in classrooms and while in the playground.

[103] Faced with a difference of opinion between Mr Hegley and Mr Lloyd as to the appropriate noise level for a classroom, we have concluded that a level of 40 dBA L_{eq} one hour for classrooms (similar to a residential sleeping environment) would be appropriate, with the higher levels of 45 dBA L_{eq} one hour for administration areas and the gymnasium. We understood any L_{eq} calculations would be based over the 9.00am to 3.00pm

period, rather than 24 hour averages, as this is the teaching period in the schools.

[104] We also note that noise impacts of the Southern Link on the gymnasium and swimming pool at Nelson Intermediate School were also discussed. Although we are satisfied that those on the gymnasium could be addressed by a suitable mitigation condition, the position in respect of the pool is not so clear. Having regard to the likely high levels of noise in the pool vicinity during periods of its operation, we do not believe that the amenity of that area itself would be significantly affected by nearby traffic.

[105] In respect of Victory Kindergarten we accept that the noise effect of this activity would be so significant on the kindergarten as to leave relocation as the only practicable alternative. Although extensive discussions have taken place, by the time of hearing no agreement had been reached between the kindergarten and Transit. We must therefore take into account the impact, particularly in terms of noise (as well as social severance), on Victory Kindergarten if this proposal were to proceed. Transit accept that relocation will be necessary.

[106] We note in particular the need to upgrade the intersection of Toi Toi and Victory Streets, and the very close proximity of the kindergarten building to the street. We take into account the evidence of Ms W M Logan, General Manager of the Nelson Free Kindergarten Association, that over 40% of the pupils on the roll have either health or other appreciable special needs. The importance of an appropriate learning environment is clear. Ms Logan told us that other than particular compulsory inside times, children participate in activities both inside and outside during kindergarten session times.

[107] We are not able to conclude that the noise levels that may be received at the kindergarten would protect the amenity of pupils or staff. In fact, we go further and conclude that there is a very real prospect of health effects from the proximity of the kindergarten to the road, including those effects contributed by noise. Thus we have concluded that there would be no alternative but for the kindergarten to relocate. As that matter had not been agreed between the parties, and this Court cannot require the kindergarten to relocate, we must take this into account as a significant impact of this proposal.

Overall conclusions on amenity

[108] Evidence which was given to us establishes that there are significant social deprivation issues in this particular valley, and in the vicinity of St Vincent Street. This is reflected in lower mobility in terms of car ownership and travel to other areas, higher health needs including susceptibility to conditions such as hearing loss and respiratory problems.

Accordingly, social elements within the community are compromised. We recognise that the schools and kindergarten represent a significant function of the community and a focus for it. We conclude that the designation will impact on the amenity of the area in terms of social impacts, noise and disruption of community facilities.

[109] We have concluded that the effect on the social coherence and amenity of the St Vincent Street area is exacerbated by the socio-economic conditions of the area.

Sections 7(c) and 5(2)(b) — Air quality and health

[110] This covers matters such as the life-supporting capacity of the air (section 5(2)(b)), health (section 5(2)) and the quality of the environment (section 7(f)). The Court must also consider the Transit proposed mitigation package under section 5(2)(c) intended to address these potential issues.

[111] A significant amount of time in this hearing was occupied with air quality issues. It appears to be accepted by all parties that the St Vincent Street air catchment is significantly polluted at present. The levels of PM_{10} particulate matter received in this area in mid-winter inversion conditions are among the highest in New Zealand. Ms J M Simpson, an air quality scientist called for the applicant, gave careful evidence in respect of this matter, which we did not understand the other parties to significantly dispute. On page 35 of her rebuttal evidence she supplied a worst case PM_{10} concentration table which we annex hereto and mark "H". In short, that shows existing figures of PM_{10} for 24 hour average at St Vincent Street of 165µg/m^3, 126µg/m^3 at Victory School and 83µg/m at Waimea Road. It also appears to be agreed that these adverse conditions are a consequence of the factors in this airshed and the ponding of air with pollutants in the valley basin. As would be expected, there are significant health issues in the valley as a consequence.

[112] Dr Baker, in addition to being a resident of Nelson, is singularly able to assist the Court in issues of risk from the current levels of pollution. Firstly, he confirmed the air ponding issues and submitted photographs which demonstrated inversion layers. We conclude this is contributed to not only by houses but also by the hospital boiler and school boilers together with several other commercial operations (ie dry cleaners and the hospital laundry). Secondly, he indicated that this air pollution was reflected directly in the levels of health care required within this area, including increased incidence of glue ear and asthma-related conditions. We did not understand any other expert to dispute this evidence.

[113] We have concluded that there is clear evidence of serious health risk within this valley from air pollutants. The simple proposition of Transit is that provided the Southern Link does not increase those levels, then the

designation should proceed. Effectively what they seek to do is reduce the contribution of wood fires PM_{10} and replace that with diesel particulate PM_{10}. It is accepted by Ms Simpson that the air quality levels would be at or around 187µg/m^3 of PM_{10} (24-hour average) without allowing for any steps taken in the meantime to reduce emission levels (ie an increase of around 22µg/m^3).

Wood and diesel smoke

[114] The question raised on which extensive evidence given was:—

Are wood fire PM_{10}'s equivalent to diesel PM_{10}'s?

[115] The Court received evidence from international experts, including Professor L H Morawska, Director of the International Laboratory for Air Quality and Health in Melbourne, and Dr J H Clemons, a research scientist specialising in environmental and particulate matter toxicology with Landcare Research. Again the Court, faced with differing opinions, must make a decision. We have concluded that the preponderance of the evidence is that diesel emissions are not equivalent to wood fire emissions and that diesel emissions produce considerably more fine and ultra-fine materials (smaller than PM_{10}) than does wood fire smoke. Fine particles can be described as particulate matter with a diameter of less than 2.5µm ($PM_{2.5}$). Ultrafine particles are described by Dr Clemons are having a diameter less than 0.1µm ($PM_{0.1}$). We also conclude as a fact that the chemical composition of the products of combustion from wood fire and diesel may vary.

[116] We also conclude that there is no evidence before this Court as to any differing health consequences from the different composition of the two materials or whether the increased production of fine and ultra-fine materials (< $PM_{2.5}$) has increased negative effects on human health. We also conclude as a fact that there is significant dispute about the effect of fine and ultra-fine materials on the human body and whether such diesel by-products are carcinogenic.

[117] Extensive research is now being conducted internationally and the Court had an unusual insight into the work being done in this area from Professor Morawska. It is not possible for us to conclude that the substitution of diesel PM_{10} for wood fire PM_{10} means that there will be no greater effect. We simply do not know. What we do know is that significantly greater quantities of ultra-fine and fine materials (< $PM_{2.5}$) will be produced from diesel combustion, and thus we cannot establish equivalency on the basis of mass weight. Accordingly, we must conclude that notwithstanding the laudable efforts of the Council and Transit to reduce the emissions of wood fire burning into the catchment by entering into agreement to replace wood fires with electric heating or air

conditioning, that cannot, on its own, justify the increased discharge of diesel particulates into this catchment.

Maintaining Current Pollutant Levels

[118] Furthermore, we cannot accept as a principle that it is appropriate to continue to pollute this environment to the same levels as currently exist when that is clearly well beyond any level that is considered acceptable in terms of either national environment standards, the Regional Council plans or the evidence of the expert witnesses before this Court. The Act has a single broad purpose of sustainable management and it would be an anathema to that principle to suggest that excessive but existing levels of pollution should continue into the future in all cases.

[119] Whether maintaining pollutant levels is appropriate or not is a matter for determination by the Court in every case. We have concluded that the Court is empowered to require an improvement in the environment if that will meet the purpose of sustainable management. In this case, the levels at which the parties appear to be agreed that there could be adverse effect on health is 100µg/m^3. This is the level at which there are known to be harmful effects and also above the Ministry for the Environment 24 hour guideline value of 50µg/m^3. It is not appropriate to exactly compare the 24 hour peak value of 165µ/m^3 with an annual or long term exposure but it is clear that current levels are excessive in the valley at times.

Transit's permitted baseline

[120] Transit's response in respect of this matter is to refer to the issue of permitted baseline in the context of this evaluation. It was the submission of Transit that the baseline does apply to notices of requirement and that it is a mandatory starting point. There is no doubt that section 104(1)(a) matters apply directly to the applications for Regional Council consent. However, these consents only relate to earthworks and not to the designation *per se*. The Council quoted *Beadle v Minister of Corrections*[13] as authority for the application of the permitted baseline to designation applications. Mr Milne, for the applicant, went further and said in opening that the permitted baseline is a mandatory consideration in considering matters under Part II of the Act. In closing, Mr Milne modified his position and advised the Court:

> *I accept that the baseline approach is not mandatory in this case. Nevertheless the* ***Beadle*** *decision suggests that it should be applied at least to the assessment of effects, albeit perhaps not to other parts of sections 5, 6, 7 and 8 . . . Here the baseline is relevant in terms of the existing environment (air quality in particular) and the permitted non fanciful future environment. It is the former which is particularly relevant. So far as the latter is concerned, that includes discharges to air from vehicles which are not controlled*

> *by the PAQP*[14] *. . . The baseline in my submission is but a tool to assist you to determine the degree of effect attributable to the Southern Link as compared to the existing or likely future environment. I accept that it is not determinative in terms of other aspects of Part II. In particular, safeguarding the life supporting capacity of air.*

[121] The case cited in support of that proposition was *Beadle and Others v Minister of Corrections*[15]. That was a case where all parties accepted that the baseline test did apply to designations and the regional consent required. The Court's actual conclusion was:

> *As there was no submission to the contrary, for the present case we accept that the obligation to apply the permitted baseline comparisons extends to the application for regional consents and to the designation requirement.*

[122] At para 999 of *Beadle* the Court noted Mr Milne as citing the case *Tumapuhiaarangi Hapu Me Ona Hapu Karanga v Carterton District Council and Glendon Trust*[16] as authority for the proposition that in the evaluation of cultural and spiritual effects of proposed activity (in terms of Part II), the Environment Court had been entitled to take into account activities that could be undertaken as of right. That case was not cited by Mr Milne in support of the equivalent contention in this Court. Although this matter was not explored before us, it may be that Mr Milne is referring to the discussion of what is permitted in terms of a plan in relation to Part II in paragraph 32 of that decision. Unfortunately, we cannot see any direct application of that case to the current matter. The Plan has not undertaken any assessment of the obligations under Part II in formulating provisions as to what is permitted. In fact, the current level of air discharge is not permitted in terms of the Plan, but merely represents an historical non-compliance, effectively an existing use. The assumption that an existing use right applies in respect of the discharges is incorrect. This is not a land use issue but a discharge to air and is therefore covered by the reverse onus that discharge is not permitted except by a resource consent. Section 20 provides in (1):

> *Any activity that formerly was a permitted activity or which otherwise could have been lawfully carried out with a resource consent as a result of a rule in a proposed plan may continue until the regional plan including that rule becomes operative, if—*
>
> *(a) The activity was lawfully established before the proposed plan was notified; and*

> *(b) The activity has not been discontinued for a continuous period of more than six months (. . .) since the proposed plan was notified; and*
>
> *(c) The effects of the activity are the same or similar in character, intensity and scale to those which existed before the proposed plan was notified.*

[123] Subclause 2 provides that unless the activity continues to be permitted under a proposed plan, application for resource consent must be made within six months of the rule in the plan becoming operative. We will discuss the Proposed Air Quality Plan (PAQP) in due course. The point for current purposes is that there is no presumption that an existing discharge to the environment will be permitted into the future as its continued existence relies upon it remaining as a permitted activity under a proposed or operative plan.

[124] The matter becomes even more complicated when we come to deal with matters under section 7 which do not, on their face, deal with matters of adverse effect. We accept, for example, that matters under section 5(2)(a) and 5(2)(c) would involve matters of effect. In those circumstances the definition of environment against which adverse effects are measured (which we understand to be the core part of the *Bayley v Manukau City Council*[17] decision and those following) is clearly an issue.

[125] However, there does not appear to be the same clear constraint in respect of issues under section 7(f). That appears to us to involve a normative decision of the Court, not only as to **maintaining** the environment (which might be argued to be the existing situation) but its **enhancement**. There is no doubt in our mind that the word ***enhancement*** contained in section 7(f) involves a consideration of whether the air quality in this environment is appropriate or should be improved. That is a decision which feeds into the issue of sustainable management under section 5. We did not understand any witness, including those for Transit, to suggest that the air quality in this environment was currently appropriate or that it should not be enhanced. Dr F Kelly, a health expert called for the applicant, accepted that the air quality in this area required improvement and that the conversion of wood burners proposed by the applicant and the Council were a positive step in improving the health of the people living in the valley.

[126] We must conclude that there is an imperative in terms of current air quality to achieve an improvement. As we will discuss, this is recognised by the Council, not only by the proposed conversion of wood burners but also in terms of the PAQP. We conclude that even if the PM_{10} replacement were equivalent (which we have accepted they are not), there is still a strong need for enhancement of the air quality in this environment to protect the health of residents, particularly children. Although worst case scenarios

may remain the same, there is no doubt that the Southern Link will result in occasional unacceptably high levels of PM_{10} close to major concentrations of children, namely Nelson Intermediate, Victory School and Victory Kindergarten. The Southern Link would also result in effects on air quality in summer when wood fires are not operating.

[127] Section 5(2) also notes as one of the enabling factors in communities the health of that community. No particular health benefits as a result of the Southern Link were proposed in evidence. The proposition was that, compared with the existing environment, the effects on human health would be no worse. Again, the provision in section 5(2) which reads:

> *. . . which enables people and communities to provide for their social, economic and cultural wellbeing and for their health and safety while—*
>
> *(a) . . . (c) . . .*

does not predicate that evaluation as being subject to the existing environment. To imply such a qualification would be to limit the single broad purpose of the Act. Mr Milne did not suggest that the discretion of the Court under section 5 was limited in this way. Part II of the Act permits and indeed contemplates (ie section 7(f) enhancement) positive changes in the environment where appropriate.

[128] Health is expressed in the Act in broad and normative terms. Having regard to the susceptibility of the St Vincent Street sector of the population to adverse health effects due to factors including diet, lack of mobility, inability to pay for doctors' fees and other care described to us, we cannot conclude that the health of the people living in this valley will be enabled by provision for the Southern Link.

[129] If the applicant had been demonstrating significant enhancement of the air quality and an expected improvement in health of the population as a result of the Southern Link, then that is a factor we would clearly have seen as a highly relevant issue. In this case there is doubt whether even a significant improvement in PM_{10} would necessarily be reflected in an improvement to the health of the valley residents. As we have already discussed, there is no evidence as to the potential health effects of ultra-fine and fine diesel particles. Thus an improved PM_{10} level will not reflect the exposure of residents to fine and ultrafine particles in the catchment.

[130] We conclude as a fact that the people living in this portion of the valley are already highly susceptible to the adverse health effects of poor air quality and will remain so with the current proposition for the Southern Link.

Section 5(2)(b) — life supporting capacity of air
Section 5(2)(c) — mitigation of adverse effects

[131] The Court must also consider whether the application adequately avoids, remedies or mitigates adverse effects on the environment from the activity. The permitted baseline effectively defines the environment as being the existing environment, any non-fanciful activities which are permitted in terms of a plan and, at the discretion of the Court, unimplemented resource consents. We accept Mr Milne's proposition that the permitted baseline must define the environment under section 5(2)(b) and (c). One would therefore assume that, at least to the extent of section 5(2)(b) and (c), the proposal will not increase adverse effects on the environment. However that proposition was in dispute for a number of reasons:

(a) that measurement of PM_{10} did not demonstrate the significant increase in ultra-fine and fine particles in diesel emissions;

(b) it did not properly represent the distribution of those emissions and the change that will occur, in particular the concentration of emissions next to the Southern Link;

(c) the change in type of emissions from wood smoke to diesel;

(d) the argument as to whether the mitigation proposal involving the removal of wood burners should be included as part of the permitted baseline in any event;

(e) that the introduction of the PAQP will in any event achieve improvement in the air quality of this air-shed within the life of the Plan; and

(f) that the constituents of emissions from vehicles are different in nature to those from wood burners, including differences in CO, NO_x, benzenes, and polycyclic aromatic hydrocarbons — Benzo[a]pyrene (PAHs).

Mitigation proposal

[132] We now describe and consider the mitigation proposal in more detail. Transit, through the agency of the Council, has entered into contracts with a number of landowners living in and around the valley whereby they will replace existing wood burners with alternative low emission systems. The majority of these are electrical heating, air conditioning and gas burners. The Council undertook a detailed inventory in 2001 to estimate the source of air contaminants which included a door to door survey of households. Over the entire Nelson catchment the contribution of heating sources to PM_{10} was:

(a) 41% pre-1990 wood burners;

(b) 15% 1991-1995 wood burners;

(c) 10% 1996-2000 wood burners;

(d) 3% post 2000 wood burners;

(e) 5% multi-fuel burners — wood;

(f) 8% multi-fuel burners — coal;

(g) 16% open fires with wood;

(h) 2% open fires with coal.

[133] We will discuss in detail the Council's response in terms of the PAQP to this in due course. However, the basic effect of the mitigation package is to reduce the net emissions of PM_{10} in this valley by some 30-34kg/day at peak. The Southern Link would then replace that with slightly less quantity from vehicle emission PM_{10} (around 28kg/day). Particularly in terms of worst case PM_{10} concentrations, the intention is to reduce the concentration of PM_{10} on St Vincent Street from the current 165µg/m^3 worst case 24 hour average so that the emissions including vehicle traffic maintain this worst case 24 hour average, ie 165µg/m^3. Without the mitigation package, the effect of the Southern Link would increase that figure from 165µg/m^3 to 187µg/m^3 one hour average.

[134] Importantly, Dr D L Jackson, a policy planner for the Council, gave evidence that peaks concentrations in the valley occurred through the winter period, with around 81 exceedances of the Ministry for the Environment's 24 hour average guideline of 50 PM_{10} µg/m^3 for the last recorded period in 2001. The distinction here is that the emissions contributed by the vehicles would continue on a 365 day basis. The annual daily average of 36 PM_{10} µg/m^3 takes into account the significantly lower emissions during the summer period. However the continuing emissions of some 30kg of PM_{10} (and other substances) per day in the summer period is likely to increase this average. Unfortunately, there was no detail given to us in terms of modelling as to the annual average figure to be achieved with the Southern Link in place.

[135] Whatever the situation, and even if this is less than the current annual average, it will still introduce constant air pollution, whereas currently PM_{10} levels drop to under 10µg/m^3 at certain times during summer. Taking into account that some of the summertime readings may be influenced by salt air, one cannot conclude that the vehicle emissions if the Southern Link is established would be avoided or remedied at least during these times.

[136] At best the applicant is proposing a mitigation package which will give equivalent emissions in winter in terms of mass weight of PM_{10} or larger. To that extent at least, we conclude that there has been a remedy or mitigation of the effects of the activity by compensatory action to reduce other emissions into the catchment. We can see no reason in principle why such compensatory action cannot be taken into account. This general principle has been accepted by the Court in many other cases as part of the remedial or mitigating steps. Because of our conclusion that the removal of wood smoke is not equivalent to diesel, we are left with the question as to whether this is an adequate mitigation, even taking into account the permitted baseline.

[137] Dr Jackson has been involved in a range of environmental work including as a research scientist and university teacher. He has worked for the Ministry for the Environment. He is a person who is adequately qualified as an expert to comment upon the mitigation package. Although the Council supported the applicant in this matter, Dr Jackson's views did not entirely coincide with those of the applicant. In cross-examination Dr Jackson did not accept that the mitigation package would achieve gains that would not otherwise occur within the period of the construction of the Southern Link route. He discussed the age of burners and concluded that by natural attrition, groups of less efficient and older burners would be replaced in the next five to ten years. He concluded this would lead to an improvement in the emissions into the air-shed in any event. Tellingly, Mr McFadden asked him (at page 1113 of the notes of evidence) the question:

> *Q.* *In those terms, and having regard to the evidence that you have heard, are you satisfied that the mitigation package as proposed does in fact offset or benefit those who are going to be most affected by the concentrations of vehicle emissions from the Southern Link, that is to say, those within 200 metres of either side of the corridor.*
>
> *A.* *No.*

[138] Dr Jackson went on to accept the proposition of Mr P E Millichamp, an air quality expert, that it is not possible by monitoring to check that the mitigation proposed does, in fact, occur. This is because of the number of variables in measurement from time to time, some of which are climatic and beyond the control or exact measurement of any party.

[139] We conclude that the remedy or mitigation proposed in this matter is entirely dependent upon modelling because of the inability to independently verify outcomes. We are therefore being asked, in essence, to rely upon an opinion of a witness and a computer model which is not verifiable in any way to maintain existing unsatisfactory levels of air quality within this air-shed.

[140] When we come to consider the numerous other products of combustion from diesel engines compared with wood fire burners, the matter becomes even more complex. We were given evidence about CO, NOx, and PAH[18]. We reproduce and accept a table produced from Dr Clemons showing distinctions between the chemical PAH profiles of wood smoke, petrol exhaust and diesel exhaust, although as we have discussed, the effect on human health of these distinctions is not so clear.

PAH	Wood Smoke µg/mg PM	Petrol Exhaust µg/mg PM	Diesel Exhaust µg/mg PM
Naphthalene	0	0	0
Acenaphthylene	0	0	0
Acenaphthene	0	0	0
Fluorene	0	0	0
Phenanthrene	4.3	13.4	5.4
Anthracene	2.1	0.5	0
Fluoranthene	3.0	13.6	22.3
Pyrene	3.0	10.4	19.0
Benzo[a]anthracene	1.1	2.8	19.4
Chrysene	0.7	3.2	42.8
Benzo[b]fluoranthene	0.4	0	37.4
Benzo[k]fluoranthene	0.6	0	17.9
Benzo[a]pyrene	0	0	0
Indenopyrene	0	0	0
Dibenzo[a,h]anthracene	0	0	0
Benzo[ghi]pyrene	0	0	0
Total	15.2	43.9	164.2

We are not able to conclude that there has been any evidence given to the Court during the course of the hearing that the effects of the increase in these chemicals have been adequately avoided, remedied or mitigated.

[141] Subsequently counsel for Transit advised the Court that the Transit New Zealand Authority considered that in terms of new legislation applying[19], they were able to offer to the Court, if it saw fit, a proposal to ban diesel vehicles from using the Southern Link for some or all of the time. This Memorandum was filed several months after the conclusion of the hearing and effectively raises a new issue which has not been subject to consideration or cross-examination of witnesses. In our view it is inappropriate for counsel to seek to advance evidence to the Court by memorandum once the case has closed. For this reason alone we would discount this proposal. What difference this would make to the emissions is also unclear. Having regard to the growing number of diesel cars and light vehicles, there is no evidence before the Court on which we can judge

whether or not such a partial or total ban would adequately avoid, remedy or mitigate the effects. Even assuming we were satisfied with a ban, it appears to us there would need to be a total ban to achieve the long-term benefits and this must have an impact upon the efficiency of the route, particularly in light of the strong evidence given that it provided an alternative access route to the port.

[142] We also have concerns as to how such a provision could be enforced in any realistic way and what the impact on traffic efficiency would be of any such enforcement course of action. In light of our primary conclusion, we do not see any justification on which the Court should reconvene the hearing to examine these matters and do not believe they would influence the eventual outcome of the Court in any event.

Safety

[143] This Court expected to hear detailed evidence from Transit as to the ways in which the Southern Link would significantly improve safety, not only for members of the public travelling on the transport network, but also for residents in the district. The evidence which we received was particularly vague. To the extent there was any evidence from Transit, we prefer that of Mr Foster who told us that the accident rate on the existing road network was lower than the national average. We did not understand there to be any evidence of significant accident rate improvement as a result of the construction of the Southern Link. We suspect that the addition of new traffic flows from Southern Link into some key intersections may create a greater prospect of conflict and accident. We are not able to conclude that the Southern Link will improve safety.

[144] We have a significant concern also about the Southern Link where it moves from the Railway Reserve onto St Vincent Street. Traffic is intended to be slowing down as it comes down a hill from the south and onto these streets. We conclude that it is inevitable that there will be speed creep as traffic takes time slowing down to 50 kilometres per hour from the south onto St Vincent Street and will tend to maintain its existing speed on the downhill slope.

[145] Our most significant concern in this regard is for the safety of people on the section of St Vincent Street between Toi Toi Street and the Railway Reserve. This is the area where a significant number of children will be travelling to school. Victory School is at the junction between St Vincent Street and the Railway Reserve. Having regard to the number of property entrances on St Vincent Street, there will be conflict between vehicles moving on to the State Highway and the existing traffic flows, particularly in the morning peak. In addition to this, there will be a significant number of children travelling from the west to the school.

[146] It is intended that there will be a pedestrian over-pass to Victory School and an underpass to Nelson Intermediate. Having regard to the necessity for the overpass to be sited on the higher Railway Reserve portion of the road, and that there will be numerous property access crossings into St Vincent Street, we consider it is inevitable that children will seek to take a short cut across St Vincent Street to reach school. During our inspections we noted that many children currently walk or cycle to school by crossing St Vincent Street south of Toi Toi Street. Even if children are driven to the school, it is inevitable that parents will be seeking to drop the children off from time to time on the Southern Link. This will create conflicts with existing traffic. Even if these matters were controlled during school hours, we have a major concern that the proximity of these children to a major traffic route presents significant risk of injury or death.

[147] We explored with witnesses many alternatives to seek to improve the safety of St Vincent Street, but in the end we are not satisfied that the Southern Link could be designed to prevent children crossing it inappropriately. We combine this with our concerns about the traffic light phasing of St Vincent/Toi Toi Streets. The lights will have to be phased so as to significantly reduce the road's effectiveness in peak hours (particularly the morning peak) and thus encourage children to use those crossings or constant vigilance will be required to ensure that children use the overbridge. Having regard to the extensive use of the school out of hours, we do not think that this type of imposition on the local community and/or the teachers is reasonable.

[148] Evidence was given that children may also seek to cross the Southern Link on the Railway Reserve land or walk along the edge of the Railway Reserve land before reaching the schools. The basis for this assertion was that children have used this route for many years and are unlikely to change their habits. Such a course of action would, of course, have devastating safety consequences but we consider is a significantly lower potential risk. It appears to us that the construction of the Railway reserve portion of the Southern Link could be designed in such a way that access on to it from the western side would be virtually impossible. As far as walking along the edge of the Southern Link, we feel this is unrealistic having regard to the proposal to construct a well-graded, open and pleasant walkway at the base of the bank rather than along the road formation itself. In that regard we consider that the Southern Link will be safe from a pedestrian point of view once it reaches the Railway Reserve.

[149] Our major concern relates to the road between Toi Toi Street and the Railway Reserve and, to a lesser extent, below the Toi Toi Street intersection. In this regard we still see a potential for conflict with kindergarten children being dropped off, particularly in the morning peak traffic. The core issue that concerns us is the failure to separate the traffic

from the local population on St Vincent Street. Nothing we have heard satisfies us that this problem has been addressed. These problems already exist for Auckland Point School and any change to that school from the Southern Link is one of degree. There are already safety issues for children and cars at Auckland Point.

[150] When we take into account the potential effects of the Southern Link on pedestrian safety, we are unable to see any basis on which this can be adequately avoided, remedied or mitigated. As we have already discussed, the underpass and overpass will not avoid all potential conflicts with pedestrians or residential traffic, particularly on St Vincent Street itself. Having regard to the inability to preclude pedestrians from crossing St Vincent Street because of the residential access points, we are unable to reach any conclusion that this concern can be adequately avoided, remedied or mitigated. Having also concluded that such social severance exists, there is nothing in the proposal which in our view adequately avoids, remedies or mitigates that effect. Our earlier discussion under Part II clearly also applies to section 5(2)(c).

[151] Having discussed these various elements of Part II, the Court could move at this point to a final evaluation under section 5. However, section 171 requires us to have regard and particular regard to the various other matters we have already identified. We now discuss those.

The Notice of Requirement

[152] The NOR is annexed hereto and marked "I", without the attachment showing the physical aspects of the route. It consists of six pages and it is not our intention to repeat it in full. We have already cited the objectives for the NOR earlier. The reasons for the designation at paragraph 1(a) are relevant for current purposes. They are:

> *The designation is needed in order to identify and protect a new arterial route, which will become part of State Highway 6 into Nelson, and to authorise the land uses that will be associated with it. In particular the designation is needed to meet Transit New Zealand's objective to provide and maintain a safe and efficient State Highway and to complete the final link between Queen Elizabeth II Drive and the northern end of the Whakatu Drive (Stoke Bypass). This is necessary as the current road network will be at capacity by 2010, with traffic congestion being significant.*

[153] We have already discussed the question of the safety and efficiency of the route under Part II and have concluded the evidence does not establish these requirements. We further note that this route is not necessary to provide a state highway to Nelson. The Rocks Road/Tahunanui route currently does provide that. There is also the availability of the

Waimea Road route for a state highway if Transit concluded the Stoke Road should constitute the state highway. As we understand it, the state highway is still intended to remain on the main Stoke Road and would deviate from the Annesbrook roundabout to the Southern Link.

[154] The NOR states that the Southern Link is necessary (final sentence of the reasons). Notwithstanding any discussion of section 171(1)(a), we are required to have regard to the wording of the NOR and in particular the assertion that the Southern Link is necessary. The sense in which that word is used in the Notice of Requirement is not clear but it may be an allusion to *reasonably necessary* as that term has been applied in the past in section 171(1)(a). Importantly, the word is linked, not with the method of designation, but with the need for additional capacity on the network. We have already examined under Part II the question as to whether or not this route is the only way in which this demand on capacity can be provided for. Although we have not utilised the word *necessary* in that consideration, it is clear that this word introduces some level of compulsion as opposed to choice. Without repeating our earlier discussion, quite simply our conclusion on this issue is that the Southern Link is not the only method by which the increased demand for capacity can be met. There are other improvements that can be undertaken which would meet need for additional capacity. To that extent we prefer the evidence of Mr Foster, as we have already discussed.

[155] Further light is shed upon this in examining 1(e) of the NOR, which discusses a series of options. It is necessary to refer to the June 2000 assessment of environment effects to understand fully these options, but the "do minimum" option mentioned there is effectively a "do nothing" option. It does not even involve upgrading of the twin roundabouts at Tahunanui and was described by Transit witnesses at the hearing as the baseline against which all alternatives can be measured. As we have already discussed, the upgrade of Rocks Road (four-laning that road) does not represent a realistic alternative. In fact, the three laning of Waimea and Rocks Roads was not considered by Transit until shortly before the hearing and issues will arise when we discuss section 171(1)(b) as to whether or not consideration can be given so late after the NOR is notified.

[156] However, for the purposes of the NOR, the alternatives which were considered were not realistic. Having listened to all of the evidence, we have reached the conclusion that they were effectively options proposed to bolster the case for Southern Link rather than to examine the realistic prospect of those alternatives proceeding in their own right. We reach this conclusion because:

(a) the options did not include basic intersection upgrades (ie Tahunanui roundabouts);

(b) three-laning the roads was not considered;

(c) options such as median barriers, single direction turning, freeways were not explored;

(d) lack of any satisfactory explanation of why these alternatives were not considered before 2003.

[157] We also note that objective 2(c) sought to reduce to an acceptable level the impact which *heavy vehicles . . . has on . . . adjacent properties.* It is unclear how the NOR would achieve this. The impact of heavy vehicles in terms of diesel emissions and noise will constitute a significant increase in the valley.

The submissions of the parties

[158] There were issues raised by the parties which Mr Milne said were not relevant to an examination of the designation or appeal or of limited relevance. These were:

(a) the relative cost of developing the Southern Link option compared to others;

(b) any increase in cost to the Council of addressing the air quality situation in Nelson;

(c) the adequacy of consultation other than with tangata whenua;

(d) the level of opposition; and

(e) the proposed national environmental standard for air quality.

[159] The reference in section 171 to the submissions is interesting and there is no equivalent provision in section 104. The only limitation upon the matters which the Court is to have regard to in this category appears to be *subject to Part II*. In our view each of the matters Mr Milne has raised would, in any event, be matters irrelevant in terms of Part II of the Act and therefore any evidence given on them would be over-ridden by the consideration under Part II. Fortuitously, it is not necessary for us to examine this in detail because we did not understand the evidence of any of the parties to go so far as to advance arguments on the basis of any of these issues with the possible exception of the proposed national environmental standard. We accept Mr Milne's proposition that the Court cannot speculate on what legislative or other documents may be generated in the future. Accordingly we must apply the documents that exist currently.

[160] There was much discussion about the proposed national environmental standard but the two drafts we were shown were so significantly different that we could not, in any event, have any view as to the final form they may take. We can see no distinction in principle between

this situation and those where a territorial authority may indicate that it intends to either withdraw a proposed plan or introduce a variation to it. The Court must, of its nature, operate with the statutory and other documents that are in existence at the time of its decision.

[161] With these exceptions, all of the submissions essentially capture matters that we have already discussed or will shortly. These were highlighted by Transit counsel in their statement of issues as:

(a) social

(b) air quality

(c) health

(d) noise

(e) traffic

(f) landscaping (which was not pursued at hearing)

(g) planning matters including:

(i) cumulative effects,

(ii) term of resource consent,

(iii) conditions,

(iv) amenity,

(v) mitigation,

(vi) matters under the designation sections 171(a), (b) and (c).

[162] We have had regard to all of those matters which are discussed elsewhere in the decision.

Section 171(a) — Necessity of designation

[163] We have already discussed the meaning of section 171(a) and that we consider that we are bound by the decision of the High Court in *Wymondley*[20] to limiting our consideration to designation as a technique. In *Rangi Ruru Girls' School Board of Governors and Others v Christchurch City Council*[21] we set out in some detail our concerns with that approach, which we will not repeat. The Court is concerned with section 5 and the sustainable management of the environment. It is difficult to see on what basis the Court would have a particular interest in whether designation or resource consent was used as the method. It may be that that question turns on the less participatory process of designation compared with resource consent at the time the eventual design is settled upon. However, both processes are public and participatory and have rights of appeal to the

Environment Court, and on questions of law beyond that to the High Court and Court of Appeal.

[164] However it is clear that if we are examining the benefits of designation as a method in this case, there are a number of benefits to designation as a method:

(a) it signals potential for future changes on the site, particularly in the District Plan;

(b) it has clear methodology for the changes to occur (the outline plan procedure);

(c) it enables a uniform approach to state highways throughout New Zealand.

Section 171(1)(b) — Adequate consideration given to alternative sites, routes or methods

[165] Mr Milne for Transit submits that section 171(b) is concerned with the consideration of alternatives rather than the merit of alternatives. Again the Court has already considered relative efficiency in terms of Part II and therefore strictly speaking this argument is not of material concern in this case. However, it was clear to the Court that a realistic consideration of alternatives, (particularly the three lane option, which would involve upgrading roundabouts and intersection improvements on Waimea and Rocks Roads and the three-laning of Waimea and Rocks Roads) was not undertaken by Transit until just prior to their August 2003 report. Evidence was given that after the report was produced in August it was considered by the Board who had concluded they should proceed with the current application.

[166] Mr Milne's argument was that there was no limit on the time by which the consideration needed to be undertaken. Therefore consideration of alternatives could occur at any time prior to the commencement of the hearing and possibly later, although the point was not specifically argued.

[167] We conclude as a fact that adequate consideration of alternative routes and methods of achieving this work were not made until just prior to August 2003. It follows therefore that at the time of the notification of the NOR and at the time the appeals were filed, adequate consideration had not been given. This matter was only rectified after the matter was set down for hearing and when the Board considered a more detailed report in August 2003.

[168] In *Waimairi District Council v Christchurch City Council*[22] the Tribunal considered similar wording and said:

> *We think the purpose of that part of the subsection is to enable the Tribunal to be satisfied that a requiring authority has not acted arbitrarily in selecting its site, its route or its method of achieving its objective.*

[169] In *Bungalo Holdings v North Shore City Council*[23] the Court stated:

> *We understand that section 171(1)(b) calls for a decision-maker to have particular regard to whether the proponent has made sufficient investigations of alternatives to satisfy itself of the alternative proposed, rather than acting arbitrarily or giving only cursory consideration to alternatives. The proponent is not required to eliminate speculative or suppositious options.*

[170] Earlier at paragraph [49] the Court noted:

> . . .
>
> *Paragraph (b) calls for particular regard to the adequacy of the consideration given to alternative sites, routes and methods of achieving the work or project. By confining the question to the adequacy of the consideration given, this paragraph implies that the territorial authority (and the Environment Court on appeal) are not expected to substitute their own judgments about which of the alternatives should be adopted, beyond the extent called for by paragraph (c). Even so, paragraphs (b), and (c) call for a territorial authority (and the Court when invoked) to have regard (to the limited extents defined) to the substantive content of the proposed work or project and alternative sites, routes and methods. The comparison of the direct use of words in those paragraphs to that effect with the words of paragraph (a) "Whether the designation is reasonably necessary . . ." may be an indication that paragraph (a) was intended to be focused on the designation, not on the work or project.*

[171] In *Beadle and Ors v Minister of Corrections and Anor*[24] the Court noted:

> *[860] We accept that the focus of paragraph (b) is whether adequate consideration has been given to alternative sites, routes and methods, not whether adequate consideration has been given to the subject site. . . .*

> *[864] In this respect Mr Brand seems to have misunderstood the Court's role. The Court does not have the executive function of deciding the most suitable site. Although the proceedings include an appeal against the Minister's requirement for a designation, the executive responsibility for selecting the site, and for deciding to proceed with the project on it, remains that of the Minister, for which he may be accountable to Parliament or the electorate.*
>
> *[865] In addition, as Mr Warren observed, there may be many possible sites for the public work. However many sites have been considered, it may always be possible for another to be identified. It has long been established that having regard to whether adequate consideration has been given to alternative sites does not require the appellate body to eliminate speculative alternatives or suppositious options.*

[172] We accept that at the hearing there were two realistic alternatives put before the Court, namely the do minimum upgrading of intersections and three-laning option for Waimea and Rocks Roads. In our view, the four-laning Waimea Road proposal, examined in the assessment of options, was not realistic in light of the extensive earthworks required on an existing busy road with major public institutions on route (schools and hospital). We have already noted that we also regard the option of four laning Rocks Road, with a 15 metre incursion into the CMA, as unrealistic.

[173] Having regard to the very late consideration of these first two alternatives, the question we must ask ourselves is whether that consideration is adequate. In our view that must be a broad consideration involving questions largely of fact rather than law. We remain concerned during the course of this hearing that a number of the critical witnesses for Transit did not clearly have in their mind issues relating to:

(a) The constraints of the existing intersections, particularly Annesbrook and the twin roundabouts;

(b) The potential for improvement of intersections both on Waimea Road and Rocks Roads and generally, ie insertion of median strip, parking restrictions on the road, restricting turning from side streets.

[174] We were left with the impression that when Transit was faced with Mr Foster's analysis, they then began to re-assess the situation. This led essentially to the production of Exhibit F to this Court. This exhibit was not contained in the rebuttal evidence of Mr Crundwell or Mr Kelly. This then led to the recall of Mr Crundwell to deal with some of the issues raised by Mr Foster, including the Tahunanui roundabout upgrade; the performance

of the three laning of Waimea and Rocks Roads; and issues relating to peak demand and peak capacities of the road.

[175] It was an accepted principle of all the traffic engineers before us that the performance of the network is controlled by the weakest link. The witnesses were still addressing this issue during the course of the hearing. In light of the late development of realistic alternatives, we have real doubts as to whether Transit have taken a completely fresh look at the alternatives and not acted arbitrarily having regard to the advanced state of the NOR and the appeal before this Court.

[176] We conclude the application does not meet section 171(b) in the circumstances of this case. In the alternative, if the consideration at this late stage is adequate, we are satisfied that the other options do represent realistic alternatives and we have discussed these already under Part II. Whether the issue arises under section 171(b) or under Part II is of no particular moment.

[177] We accept it is not for this Court to substitute its opinion as to the route for that of Transit. The Court is limited to confirming, modifying or withdrawing the requirement. It is clear in our view that there are no modifications of this requirement which would enable us to adopt any of the alternatives and therefore the Court only has before it the current requirement and not the option of selecting another. To that extent our consideration of alternatives is limited, even if it goes beyond only the adequacy of consideration. In our view it would add no more to the examination of them than has already been conducted under Part II of the Act.

Section 171(1)(c)

[178] We accept Mr Milne's submission that this provision is only relevant if the Court concludes that the consideration of alternatives was inadequate. As was noted by the Court in *Beadle*:

> *[873] . . . Counsel also submitted that paragraph (c) only becomes relevant if consideration of alternative sites had been inadequate.*
>
> *[874] We accept the Ministers submissions in both respects. We have found that adequate consideration was given to alternative sites and methods; and that implementing the designation on the subject site would not have the serious adverse effects alleged. In those circumstances it would be unreasonable to expect the requiring authority to use an alternative site or method.*

[179] In light of our primary conclusion that the consideration of the alternatives was inadequate in the factual circumstances of this case, it follows that we should examine whether it is unreasonable to expect the

requiring authority to use an alternative site, route or method. Based on our earlier factual conclusions it is clear that the Court considers there are other practical and viable alternatives. In fact Mr Foster, the traffic engineer for the appellants, accepted that upgrading the intersections and/or three-laning Waimea and Rocks Roads would meet the requirements of the NOR. However, as we have already discussed, we do not consider it is for this Court to establish an alternative and decide the merits of that. The question of unreasonableness turns on whether there is anything in the nature of the work which means it would be unreasonable to expect the territorial authority to use an alternative[25]. The High Court in the *Takamore Trustees* case also noted:

> *The unreasonableness relates not to the process that may have to be gone through to gain approval for an alternative route, but to the expectation of an alternative route because of the nature of the public work. I therefore reject the Environment Court's conclusion that there must be a viable alternative route before subsection (c) can effectively be considered.*

[180] In light of our primary conclusion we cannot conclude that it is unreasonable to expect the requiring authority to utilise an alternative site, route or method. They currently utilise such an alternative in terms of Rocks Road/Tahunanui Road. There was no evidence advanced that the Rocks Road route was unavailable or unsuitable into the future. The issue is simply one of additional capacity. To that extent Transit witnesses accepted that roading and intersection improvements would increase the capacity of Rocks Road. In the event that we are wrong in our application of section 171(b), then we accept that section 171(1)(c) would not apply.

Section 171(1)(d) — Provisions of any national policy statement, regional policy statement, proposed regional plan, district plan

[181] Although there was reference from time to time to the Ministry for the Environment Air Quality Guidelines and to the draft National Environmental Standard for Air Quality, there is at this stage no document that has statutory effect in respect of this application. Although issues might arise as to the relevance of the Air Quality Guidelines, in this particular case nothing turns on the issue because of the PAQP which we will discuss shortly.

[182] The starting point for documents relevant under section 171(1)(d) appears to be the Nelson Regional Policy Statement (RPS). This is an operative document. Chapter 7 deals with natural and amenity values. The objective here is the preservation or enhancement of amenity and conservation values. Policy NA1.3.3 seeks to avoid and, as far as possible, remedy or mitigate the conflicts between adjoining land uses including the provision of services and/or facilities. Chapter 11 of the RPS sets out the

objectives and policies in relation to air quality. The relevant objective under this section is the improvement in Nelson's ambient air quality. The most relevant policy is the setting of minimum ambient air quality standards. A key method, the preparation of a regional air quality plan, includes standards and rules relating to discharges to air. Policy DA1.3.7 states:

> *To seek to minimise vehicle emissions from motor vehicles while acknowledging the effects of primary transport corridors on air quality and the resultant incompatibility between some land use activities and those primary transport corridors.*

The RPS also deals with noise under the heading of 'Discharges to Air'. The objective here is an environment in which unreasonable noise is avoided, remedied or mitigated.

[183] Chapter 14 deals with infrastructure objectives and policies. The objective is:

> *A safe and efficient land transport system that promotes the use of sustainable resources, whilst avoiding, remedying or mitigating its adverse effects on human health and safety, and on natural and physical resources.*

[184] The following policies also require consistency with the provisions of Part II of the Act.

[185] The next document of relevance is the Proposed Nelson Resource Management Plan which is not operative but has few remaining references, none of which impact on this designation application. The Resource Management Plan includes a proposed principal road overlay on the current proposed alignment. This Plan envisages the Southern Link as a local principal road, rather than a state highway.

[186] There is also a landscape overlay relating to the Bishopdale Saddle indicating that this is an important visual gateway and transition between Stoke and Nelson. The areas surrounding the St Vincent Street route are zoned Residential, with the exception of the schools. This has particular impact for the possibility of relocating Victory Kindergarten to Totara Street which is zoned Residential. As Residential zoning, such an application would require a resource consent under the district plan as a discretionary activity land use. Residential policies and objectives are relevant, particularly to the relocation of the kindergarten, but generally indicate expectations in respect of residential community and educational sites. For example, there is a policy on community dislocation, RE 2.7 which states:

> *Activities should avoid breaking up community and neighbourhood coherence, having particular regard to the cumulative effect of activities.*

The Proposed Air Quality Plan (PAQP)

[187] The PAQP was notified on 23 August 2003 shortly before the commencement of this hearing. In terms of the Act the plan has effect from the date of public notification unless the rules state to the contrary. We have had regard to the entire plan which is of course of direct relevance in its entirety to this application. We must also take into account that the PAQP has only commenced public consultation, and therefore real issues arise as to the weight which can be given to that plan.

[188] However, many of the policies and objectives are ones that appear to be desirable in terms of the description of the issues we have touched upon in this decision. This is reflected in the fact that by the date of hearing we were advised that many of the essential policies were not in dispute in a way that may minimise them. Many of the policies had submissions seeking firmer provisions than those already stated. There is still potential for a different point of view to be expressed in the cross-submission process which is yet to be undertaken.

[189] The single objective of the PAQP is set out in A5-1 Ambient Air Quality:

> *The maintenance, and the enhancement where it is degraded, of Nelson's ambient and localised air quality.*

Policy A5-1.3 sets out ambient air quality targets and incorporates the Ministry for the Environment Ambient Air Quality Guidelines into the PAQP. Table A5-1 sets out the guidelines and Table A5-2 notes the air quality categories. We annex hereto and mark "J" and "K" both of these tables. We note firstly that the PAQP incorporates not only the maintenance of air quality but its enhancement where degraded.

[190] Without dealing with each of the matters in the table it can be immediately seen at $50\mu g/m^3$ 24 hour average PM_{10} and $20\mu g/m^3$ annual average PM_{10} the air quality in the St Vincent Street air shed is well below that sought in terms of the PAQP. Table 5-2 indicates where there is an exceedance of the guideline value that:

> *Exceedances of the guideline are a cause for concern and warrant action if they occur on a regular basis.*

[191] We then note Policy A5-1.4 defines particular particle pollution which notes:

> *(a) A mid-term target for ambient PM_{10} levels will be, at a minimum, compliance with the Ministry for the Environment 'Alert' Air Quality Category by no later than 2020, or sooner if practicable, towards ultimate compliance or better with the 'Acceptable' air quality category as in Policy A5-1.3.*
>
> *(b) Discharges to air from all sectors producing fine suspended particles (domestic, transport, industrial or trade) shall be managed to support the achievement of these ambient targets, and the implementation of Policy A5-1.3.*
>
> *(c) In order to achieve the mid-term target in (a), the following reductions in PM_{10} emissions (relative to 2001 levels) are required across the Urban Area:*
>
> > *(i) At least 70% from domestic heating, and*
> >
> > *(ii) At least 98% from outdoor burning, and*
> >
> > *(iii) At least 10% from industrial and trade sources, except in any area with a high concentration of industrial and trade discharges where higher percentage reductions may be required to achieve the target, and*
> >
> > *(iv) A reduction in emissions from the transport sector.*
>
> *(d) Greater or lesser reductions may be required in certain parts of the city to achieve the mid-term target, . . .*

[192] We annex hereto and mark "L" pages ChA5-2 to A5-10. We note Policy A5-1.3 Ambient Air Quality targets which notes in (b) and (c):

> *(b) Where for any contaminant, ambient air quality is worse than the 'Acceptable' category in Table A5-2, it will be a priority to enhance that air quality to an 'Acceptable' level or better as soon as practicable (or to any amended levels referred to under (a)), and*
>
> *(c) Where for any contaminant, ambient air quality is 'Acceptable' or better, no further appreciable degradation of the existing ambient air quality will be allowed (or to any amended levels referred to under (a)).*

[193] Policy A5-1.7 deals with adverse effects from the discharge to air of contaminants and notes issues in relation to human health and cumulative effects of discharge.

[194] Policy A5-1.8 deals with location factors, meteorology, topography and sensitive receptors or sites.

Discussion of planning provisions

[195] It is clear that the PAQP envisages significant improvements to the air quality of the St Vincent Street air shed. It is difficult in those terms to see that an application envisaging the maintenance only of those air quality standards meets or advances the plan provisions. In fact having regard to the relatively strong words that we have discussed we conclude that such an application may be contrary to the policies and objectives of this plan. We recognise that there is a spectrum of compliance, and for the purposes of this case it is not necessary for this Court to reach any conclusion as to whether the application is contrary to them. However, whatever interpretation is taken of the PAQP it is clear to us that the application does not advance the objective of enhancement of degraded airsheds.

[196] In the end the issue of what weight needs to be given to the plan is relatively academic. Having regard to the fact that we have reached roughly equivalent determinations under Part II of the Act, it is not critical to the determination of this case whether or not particular strength is to be given to the provisions of the PAQP. What they do for this Court is introduce a degree of confidence in our primary evaluation under Part II. Our conclusions under Part II reflect the very determinations that the Council has independently reached in its preparation of the PAQP. That is not to say that those provisions will not change, but it does show to us that our conclusions in this regard are practical and robust in a general sense.

Sustainable management under section 5

[197] Having regard to the NOR and the submissions, and having particular regard to the matters in section 171(1)(a) to (d), we must now make a decision under Part II as to whether or not to confirm, modify or withdraw the requirement.

[198] Once the Court conducted its analysis under Part II the result appeared inevitable. We recognise in a general sense that there will be a benefit of road capacity increase to the network between Nelson and Richmond. Assuming that the Southern Link did achieve this benefit, we see significant disabling of various portions of the community without any counter-veiling increases in safety and efficiency anticipated.

[199] We are unable to ignore the existing health impacts and the probable continuation of those into the future without the respite anticipated in terms of the PAQP. We see the social severance and pedestrian safety issues as significant issues not only to the local community but to the wider district. We see the proximity of two major schools and kindergarten to such a State Highway as undesirable and disabling to both the pupils and the teachers. We are unable to see the significant benefits from switching State Highway 6 from its existing route to the Southern Link, especially if heavy diesel vehicles were to be banned.

[200] In the end we are unable to conclude that this designation would meet the single broad purpose of the Act of sustainable management as that term is defined in section 5. Our key concerns relate to the proximity of the schools to the route, potential effects on pedestrian safety, and issues of social coherence. We recognise that the air quality issue predominated the consideration of the evidence in this case. However, we are, at best, left with the conclusion that there is going to be a continuation of the existing air degradation into the future in terms of PM_{10} concentrations but with a change and an increase in concentrations of certain substances and smaller particles for those living within 200 metres of either side of the route.

[201] The existing air quality situation in this air shed is unusual if not unique in New Zealand. In many other cases the level of these effects would be such that mitigation would achieve an acceptable outcome. In this particular case however when we combine this situation with the other concerns we have mentioned we are left with a compelling case that this designation would not meet the purpose of the Act.

Conclusion

[202] We reach the same conclusion as the Commissioners in this matter, namely that the Southern Link requirement should be cancelled. Fundamentally this is the wrong place to put a State Highway.

[203] This is a public interest matter. All parties sensibly accepted at the end of the hearing that costs should lie where they fall. Accordingly, there is no order as to costs.

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1 Thus for example there may be two lanes going north into the City in the AM and one lane going south on Waimea Road. On Rocks Road Tahunanui there would be two lanes south PM and one lane north]

2 [2001] NZRMA 557 at para 22

3 CIV2003, 404,000038, Justice Williams. 17 September 2003

4 Above at Para 29

5 A052/01, 7 June 2001

6 C130/2003, 19 September 2003

[7] [2003] NZRMA 316
[8] Paragraphs 59 to 61
[9] *New Zealand Rail Limited v Marlborough District Council* [1994] NZRMA 70 and also *Beadle v Minister of Corrections* A074/02
[10] *Marlborough Ridge v Marlborough District Council* [1998] NZRMA 73 at 88-89
[11] See page 396 of Notes of Evidence
[12] Page 1028 of Notes of Evidence
[13] A74/02
[14] *Nelson City Council Proposed Air Quality Plan (PAQP)*
[15] A074/2002 paras 988-1002
[16] High Court Wellington AP6/01 25 June 2001, Chisholm J
[17] [1998] NZRMA 513
[18] PAH in this case included phenanthrene, anthracene, fluoranthene, pyrene, benzo[a]anthracene, chrysene, benzo[b]fluoranthene, benzo[k]fluoranthene
[19] Land Transport Management Act 2003
[20] Cited earlier
[21] C130/2003 paragraphs 40-44
[22] C30/82 (Planning Tribunal under previous legislation)
[23] A052/01 (Environment Court) para [111]
[24] A74/2002
[25] *Takamore Trustees v Kapiti Coast District Council* AP191/02 paras [101] to [104]