18.0 Land Transport

18.1 Introduction

The land transport infrastructure of Marlborough forms a significant component of the physical resources of the District. The network of roads, rail, cycleways, and pedestrian pathways and the movement of vehicles, goods, and people through that network is essential to the District's economic activity and to the convenience and wellbeing of the people of Marlborough. The resource management issues associated with land transport focus on the sustainable management of the physical infrastructure of transport networks, as a resource, rather than on the services that use them and the adverse environmental effects that arise from the network.

The Marlborough Sounds land transport infrastructure is dominated by national networks. The main north - south State Highway, with connections to Nelson and the West Coast, and the South Island main trunk railway line pass through the Marlborough Sounds. There is an extensive network of roads connecting the small outer Sounds settlements. However, the small population and distances mean that these roads carry relatively few vehicles. These networks combine to produce a hierarchy of roads within the land transport infrastructure.

Picton and Havelock are the two port entrances to the District. Picton is the principal gateway to Marlborough and the South Island. Havelock provides a key point of access to the Pelorus and Kenepuru Sounds. A key characteristic of transport in the Sounds is a reliance on water transport because of the large distances between parts of the Sounds and the main towns of Picton and Havelock, and the standard of local roading. Water transportation is addressed in Chapter 19.

Rail has a significant role in freight and passenger movement through the District.

Responsibility for the provision and maintenance of the land transport infrastructure is shared between a number of organisations including:

- Marlborough District Council (for local roads, pedestrian paths and facilities, cycle ways and facilities);
- Transit New Zealand (for the State Highways);
- Tranz Rail Limited (for the main trunk railway and rail yards); and
- Individual land developers (in creating new public and private roads and transport facilities).

Achieving an appropriate mix of land transport infrastructure requires the combined efforts of all agencies.

The safe and efficient transport of people and produce relies on appropriate interaction between land and water modes of transport.

18.2 Issue

The adverse effects from the development, maintenance and use of the transport infrastructure on the resources of the Sounds.

The construction and maintenance of transport infrastructure can cause adverse effects on the environment. The location of new road alignment is often limited by engineering factors but can scar the landscape or cause siltation of waterways. Adverse effects of transport infrastructure need to be considered in relation to community health, safety and wellbeing.

The use of transport infrastructure and transportation activities can give rise to localised adverse effects including: reduced safety; loss of amenity due to noise, dust, and vehicle exhaust emissions; and contamination of resources from surface water run-off from roads, and discharges and spills from vehicles. Effects on the environment also include the global cumulative effect of vehicle emissions on components of the atmosphere and ozone depletion.

There is considerable investment in the land transport infrastructure in the Sounds. The infrastructure includes roads, railway lines and facilities, pedestrian pathways and facilities, street lighting, vehicle parking facilities, and directional and safety signage. It is important to the wellbeing of the community that this infrastructure is able to function effectively.

It is important that extensions are compatible with the existing infrastructure and have consistent design, construction and maintenance standards. Extensions to the roading network that unnecessarily duplicate existing roads or which create intersections with difficult safety conditions will not be compatible with the sustainable management of the transport infrastructure.

Provision for vehicle parking is important to the sustainable management of the transport infrastructure. It is important to achieve a balance between parking clear of moving vehicles and the shared use of roads by moving and parked vehicles. In general, it is expected that on-site parking will accommodate the likely demand for parking resulting from activities on the site.

The use of public passenger transport is not a feature of land transport in the Sounds. Most people use private vehicles and boats. Taxis and buses are important in Picton and Havelock. It is important to ensure that the land transport infrastructure continues to accommodate public passenger transport by making provision for taxi and bus stands, and shelters.

The transport of primary products can place strain on the capacity of the local roading network and create conflicts with other users of the often narrow, metalled roads. Expansion in the forestry and shellfish industries give rise to particular needs for access, loading and storage areas close to the transport network. Changes in long-haul freight transport patterns and vehicles have also given rise to demands for new facilities in the transport infrastructure such as overnight parking areas for heavy goods vehicles, and stock effluent disposal facilities.

Accessibility is a key factor in determining whether land should be subdivided and settled. The provision of land transport, particularly roading, strongly influences the demand for residential development throughout the Sounds. Areas which are conveniently accessible by roads experience strong pressure for further subdivision and residential development. More remote areas, with no or less convenient road access, experience less pressure for development. Managing the location of new roads and road upgrading is one factor of importance in managing the location and intensity of residential development throughout the Sounds.

Roads, as public spaces, are used for a variety of purposes. The Plan recognises and provides for a variety of community uses of roads.

It is important that the transport infrastructure is able to adapt. New types of vehicles and changing social patterns may give rise to new transport facilities. The growth of cycling for recreation and transport means that there is an increasing need to provide cycle lanes on existing and new roads. The popularity of the Sounds for recreational boating creates demand for vehicle and boat trailer parking at launching areas. The Plan should ensure that such change within the transport infrastructure is able to be accommodated provided that adverse effects are avoided, remedied or mitigated.

18.2.1 Objectives and Policies

Objective 1	Development and maintenance of the land transport infrastructure in a way that avoids, remedies or mitigates adverse effects on the Sounds environment, or that reduce the health and safety, and wellbeing of the community of the Sounds.
Policy 1.1	Avoid, remedy, or mitigate adverse effects from the land transport infrastructure on the amenity values and natural and physical resources of the Sounds.
Policy 1.2	Ensure all new roads and extensions to existing roads are consistent with the District roading hierarchy in the Marlborough Regional Land Transport Strategy, and that all subdivisions and developments of land incorporate provision for the connection of future stages of development to existing roads consistent with the roading hierarchy.
Policy 1.3	Require that all new or extended roads are appropriate and necessary to provide safe and convenient access; and will avoid future inappropriate subdivision and development in the coastal environment.
Policy 1.4	Maintain amenity values by encouraging the use of national and arterial roads by high volumes of traffic and heavy vehicles; and discourage high volume and heavy traffic use of collector and distributor roads which serve rural areas, or pass through residential areas.
Policy 1.5	Require all new roads to be designed and constructed to standards to mitigate adverse environmental effects and enable safety and efficiency of vehicle movement.
Policy 1.6	Require all crossing places connecting sites to public roads to be constructed between the kerb line and the property boundary in such a way as to minimise any adverse effect on the safety or convenience of users of public footpaths.
Policy 1.7	Ensure that buildings in commercial areas, located adjacent to pedestrian footpaths, provide overhead shelter for users of those footpaths (e.g. overhead verandahs).

Policy 1.8	Enable use of public roads for a range of community activities.
Policy 1.9	Ensure that the cost of new roading, which is needed to provide access to new subdivision or development, is met by the developer, and that any necessary upgrading of existing roads is contributed to by the developer.
Policy 1.10	Provide for the discharge of non point source stormwater to land from the roading network in areas where no reticulated stormwater system is available and where such a discharge will not adversely effect the receiving environment.

These policies recognise the adverse effects that can be caused by the transport infrastructure and transport activities and intend that adverse effects be avoided, remedied or mitigated as appropriate. Construction and maintenance of the land transport network will be subject to the same procedures as similar land use activities in order to avoid, remedy, and mitigate adverse effects on the environment.

The Council has prepared a Regional Land Transport Strategy which defines the hierarchy of significant roads within the District. The roading hierarchy represents the intended status and function of roads and determines their design and speed characteristics. It would be inappropriate for new roads to be incompatible with the hierarchy. Future subdivision and development of land serviced by roads should have those roads consistent with the roading hierarchy.

Assessment of the necessity, appropriateness, and efficiency of all new roads is an important consideration in achieving sustainable management of the roading infrastructure.

Road surface and gradient are particularly important to road safety and environmental effects including discharge of water and contaminants. Where higher volumes of traffic are expected, on urban roads, road surfaces should be hard-surfaced for long-term wear and tear and ease of maintenance. Rural roads which carry lesser volumes of traffic will not always warrant the cost of hard surface finish at construction. However, maintenance of road surfaces needs to avoid, remedy or mitigate any adverse effects.

As a matter of public safety and convenience all roads, except those which are very short no-exit roads, should be capable of carrying two lanes of traffic. The design width of a road will depend on its status within the roading hierarchy but must be sufficient to accommodate the services and facilities usually expected within roads. Roads provide the servicing trenches for several essential public services. In some circumstances facilities such as footpath(s), cycle lanes, vehicle parking, and landscaped berms may be appropriate. It is important that the road's future function be fully understood at the time of its design and that it be sufficiently wide to accommodate that function.

In the interests of safety, the Council expects cul-de-sacs to have sufficient dimension to enable small vehicles and moderate sized trucks to enter and leave in a forward direction. It is considered that a larger design dimension to permit heavy vehicles to enter and leave in a forward direction would be unreasonable because heavy vehicles are expected to be less frequent users of cul-de-sacs except in industrial and commercial zones.

Roads are public spaces heavily used by pedestrians and cyclists, as well as by vehicles. Roads have different safety characteristics at night compared to the daytime. It is important that roads be designed to maximise personal safety of all users. Street lighting and separation of road users enhances safety for all users of roads.

Access along public roads is unrestricted and provides wide community benefit. That community-wide benefit is reflected in the funding of road maintenance from Council rates. Where new roads are extended specifically to connect new subdivisions or developments to the existing road network, the capital cost of that construction should be met by the principal beneficiary of the access being: the subdivider or developer.

Public roads will be designed and maintained to enable their use by public passenger transport services and the Council will continue to provide facilities where demand necessitates.

The current state of vehicle technology in New Zealand means that there are minimum levels of noise and vehicle emissions that must be expected from the operation of vehicles on roads. There is little the Plan can do to modify those conditions. The Plan can control the extent of these effects by adopting a roading hierarchy which encourages higher volumes of traffic and heavy traffic movements on certain routes and discourages them on others.

18.3 Issue

The adverse effects of activities on the sustainable management of the land transport infrastructure.

Land use activities can have adverse effects on the safe and efficient operation of the land transport network. Adverse effects on the land transport infrastructure from activities include inappropriately sited entrances that restrict site lines for traffic; road-side stalls that distract and disrupt traffic flows; buildings and trees that shade roads and contribute to ice and reduced vision; activities generating high vehicle movements that increase the chance of intersection accidents; night lighting and glare from buildings that reduce visibility of road users; vehicle loading and delivery that interferes with pedestrians' free and safe use of footpaths; advertising signs that distract motorists; and activities that demand off site vehicle parking cause congestion on adjacent roads. Maintaining safe rail crossings is an issue for the few rail crossings within Picton.

One of the issues that has not been resolved is the question of how to fund such road upgrading works and whether contributions should be sought from the industry sectors which place particular wear and tear demands on the roads. No conclusion has been reached on this issue nation-wide and research is continuing by a number of agencies into the appropriateness of such contributions.

Discharges and accidental spills from vehicles onto roads create slippery or hazardous road surface for other road users and are an environmental and safety issue. The enforcement provisions of other transport legislation are available to control these incidents.

18.3.1 Objectives and Policies

Objective 1	That any adverse effects of activities on the sustainable management of the land transport infrastructure be avoided, remedied or mitigated.
Policy 1.1	Ensure that subdivision and development of land adjacent to public roads does not compromise the safe or efficient flow of traffic on those roads through increased traffic volumes, kerb-side vehicle parking, or location of access points and intersections.
Policy 1.2	Provide for traffic safety and directional signs and road marking on or adjacent to all road and rail facilities.
Policy 1.3	Ensure that buildings, vegetation and activities do not reduce clear sight lines for trains and road vehicles at level rail crossings; or for vehicles at road intersections.
Policy 1.4	Avoid or mitigate any adverse effects from activities for any road or rail users, including glare, inappropriate direct lighting, smoke, discharges and shading onto the road, or distractions.
Policy 1.5	Ensure minimum distraction to road users by controlling the location, design, and extent of road side advertising signs, requiring the signs are located within the site to which the sign relates, and avoiding a proliferation of road-side advertising signs.
Policy 1.6	Ensure that activities that generate demand for parked vehicles and which involve loading of vehicles provide space within their site to accommodate manoeuvering, loading and parking of vehicles without creating congestion or conflicts with moving vehicles or with pedestrians on adjacent roads.
Policy 1.7	Require vehicle crossing places and vehicle entrances from public roads to be constructed and maintained to standards appropriate to the circumstances of traffic volume, pedestrian movement, and local traffic speed.
Policy 1.8	Require appropriate facilities for vehicle and boat trailer parking and loading of vehicles and storage of goods at public wharf and boat launching facilities throughout the Sounds.
Policy 1.9	Require new urban subdivisions and developments to incorporate facilities to increase the safety and efficiency of non-motorised transport users and particularly require:
	 Footpaths or access ways intended to be used by both cyclists and pedestrians, and encourage their separation for safety reasons;
	 Provision for cycle traffic within road carriageways in such a way that lane width, design, and surface finish are adequate to safely accommodate both motorised vehicles and cycles;

- Pedestrian access routes connecting residential areas, schools, shopping centres, recreation reserves, and public transport collection points and terminals where appropriate; and
- Pedestrian footpaths in urban areas:
 - Adjacent to but separated from vehicle carriageways and private property by appropriate safety structures including fences, where appropriate;
 - Constructed with permanent hard surfaces, such as asphalt or concrete;
 - Constructed to minimise any surface water flow that would be an impediment or hazard to pedestrians;
 - Pram and wheelchair crossings located at convenient positions in relation to intersections;
 - Longitudinal profile and surface finish not unduly disrupted by vehicle crossings; and
 - Gradients not exceeding 1 in 6 except in extraordinary circumstances where steps should be provided.

Policy 1.10 Where proposed allotments have access from a public road require that access to be suitable for the safe and efficient carriage of vehicles, cyclists, and pedestrians.

The Council has a responsibility to manage the adverse effects of activities including effects on the land transport infrastructure. Council seeks to ensure that activities are appropriate to the speed and function of adjoining roads. This may mean that in some locations, for reasons of transport safety and efficiency, activities that have specific effects on the transport infrastructure will need to be modified or even prevented from occurring.

It is a normal expectation, in today's society, that households will use motor vehicles. The Council considers that it is reasonable to expect that new allotments will be provided with vehicle access from public roads, except allotments adjoining the coastal marine area. That access should be provided between the road kerb line and the property boundary and should be constructed in a way that does not disrupt the safety or convenience of pedestrian use of footpaths.

The Council is committed to minimising accidents at rail crossings and road intersections. The design of all future road intersections will therefore be required to incorporate safe sight distances appropriate to the local environment and location within the roading hierarchy.

Road marking and traffic signs are an important component of the transport infrastructure. The Plan provides for essential traffic safety and directional signs and road names.

Public roads provide a certain amount of kerb-side vehicle parking. It is important to maintain vehicle carriageways for the free movement of vehicles and cyclists and to ensure that parked vehicles do not compromise pedestrian safety. Where activities give rise to demand for vehicle parking they will be expected to make provision, clear of public roads, for that parking. Public roads will continue to be available for supplementary parking for extraordinary events and, particularly in commercial areas, where kerb-side parking maximises convenience for visitors to premises without compromising road safety.

18.4 Methods of Implementation

Rules

The Plan adopts the current District roading hierarchy as the determinant of the status and function of all roads in the Sounds.

Rules are included that:

- Require all new allotments and development sites to be connected to a public road by a suitable vehicle access way formed to a standard appropriate to the rural or urban circumstances, except allotments with their only access to the coast;
- Permit essential road markings and signs subject to standards controlling their size and location;
- Control the location, size, and design of advertising signs visible from transport routes;
- Set standards for activities to avoid, remedy, or mitigate adverse effects including effects on transport routes (such as glare, night lighting, smoke and dust discharges, liquid discharges, and shading from tall vegetation);
- Control building location to maintain clear sight lines to all intersections and rail level crossings;
- Specify:
 - Standards to be applied to the design and construction of public roads, private roads and access ways; and
 - Provisions required for non-vehicle land transport including facilities for pedestrians, cyclists, and people with disabilities.
- Where an existing road is extended or upgraded to serve a subdivision the Council will require the subdivider, as a condition of subdivision consent, to pay the full cost or contribute to the cost of the extension or upgrading in accordance with the level of benefit the upgraded road provides for the subdivision compared with other road users;
- Amount of on-site vehicle parking required in association with land use activities;
- Requirements for loading and access facilities required for activities which involve loading or delivery vehicles; and
- Standards for the construction and maintenance of vehicle crossings which seek to maintain public safety.

The Plan provides for all public roads and parking areas as designated public works and will enable usual works and activities associated with roads within their boundaries. The Plan recognises designated railway lines and rail facilities. Proposed subdivisions and developments which create new roads or access ways will be assessed in terms of the objectives and policies of the Plan and will be required to comply with the specified standards. Where applications for resource consent are required, conditions may be imposed to ensure adequate provision for all forms of land transport including vehicles, pedestrians, cyclists, and persons with disabilities. All proposed extensions to the physical transport infrastructure will be assessed in terms of the Plan's policies relating to protection of the qualities of natural and physical resources (including water quality, land disturbance, landscape quality, protection of archaeological and historic sites). Transportation activities are subject to the Plan's rules relating to environmental effects, including discharges to land, water, and air. Rules make provision for point source and non point discharge of stormwater. Annual Plan The Council will continue to fund capital works and maintenance of land transport infrastructure as needs dictate throughout the Sounds. Code of The Council has developed a Code of Practice for Subdivision Practice and Land Development which serves as a practical guideline for the construction of roads and other services infrastructure. Compliance with the construction methods stated in the Code will be accepted as compliance with the standards specified in the Plan. Other The Council will continue to maintain and extend the network of pedestrian and cycle routes and facilities throughout the Sounds. The Council will continue to work with other agencies, notably Department of Conservation, in maintaining and upgrading the network of recreational walkways throughout the Sounds. The Council will continue to maintain and upgrade facilities for cyclists on existing roads and will continue to work with Transit New Zealand to upgrade facilities and safety for cyclists on the State Highways. The Council will work with New Zealand Police (Traffic Safety Service) to encourage heavy vehicles to use the national and arterial routes indicated in the roading hierarchy. The Council will seek, through appropriate road signage and road speed environment, to ensure that high volumes of traffic use the national and arterial routes indicated in the roading hierarchy in preference to collector and distributor routes.

The Council will liaise with Tranz Rail Limited in relation to issues and activities having an adverse effect on the rail network.

Liaison

The Council will continue to liaise with Central Government in terms of national initiatives to monitor and reduce overall emissions affecting the atmosphere and the Government's commitment to reduce carbon emissions by the year 2000.

The Council will forward copies of resource consents and subdivisions of land adjacent to state highways to Transit New Zealand to ensure that any adverse effects on the safe and efficient operation of the state highway network are able to be identified and avoided, remedied, or mitigated as appropriate using either the Resource Management Act 1991 or the Transit New Zealand Act 1989.

The Council will forward copies of resource consents and subdivisions of land adjacent to the Main Trunk Railway Line to Tranz Rail Limited to ensure that any adverse effects on the safe and efficient operation of the railway line are able to be identified and avoided, remedied, or mitigated as appropriate using the Resource Management Act.

The Council intends to continue to work with New Zealand Police Traffic Safety Service, transport operators and Transit New Zealand to minimise the incidence of accidental spillage onto roads.

The Council is the agency with primary responsibility for the district's road infrastructure, including facilities for pedestrians and cyclists. Changes to the road network will occur primarily through new subdivision and development. Given the importance of land transport infrastructure to the community, Plan rules and resource consent applications are considered to be the only way to ensure appropriate location and alignment of new roads and to ensure consistent high standards in the design and construction of new roads and other transport infrastructure.

Designation of public works including transport infrastructure and facilities is a method available under the Act. The Council will consider notices of proposed new designated transport works in terms of the objectives and policies of the Plan.

The Plan specifies the standards to be met and subdividers and developers can employ whatever methods are appropriate to meet those standards. The Council is able to offer the Code of Practice for Subdivision and Land Development as a means of compliance with specified standards.

The Council will continue, in association with other agencies, to improve infrastructure and facilities for pedestrians and cyclists and public transport passengers and will continue to maintain and improve the safety and efficiency of the road network.

The Plan recognises existing roads through designations. New and extended roads will be considered on their merits as new designations and be assessed in terms of the policies of the Plan relating to environmental quality.

The Plan adopts the regional roading hierarchy and accepts a certain level of effects from transportation activities along national and arterial routes. It will be the non-Plan initiatives of the Council and other agencies which will encourage traffic to use appropriate routes within the hierarchy.

The Council acknowledges the Government's commitment to reducing overall carbon emissions to the atmosphere and acknowledges the significant contribution to emissions made by vehicles. The reduction of these emissions relies on a co-ordinated national strategy, rather than piecemeal initiatives of individual authorities. The Council will therefore remain in touch with the development of any national strategy and is prepared to become involved with initiatives and programs as they are developed.

The Plan is considered to be the most appropriate and effective means of controlling the adverse effects of activities on and from the transport infrastructure and activities. In the case of district roads, the Council is able to assess the likely effects of activities. The Council will, in the case of state highways, recognise Transit New Zealand's role and interest in maintaining safe and efficient highways and will ensure that Transit New Zealand is aware of proposed activities likely to affect the highway. Transit New Zealand has powers under the Transit New Zealand Act 1989 to control the location and design of state highway crossings and remove trees shading roads. Remedies under this legislation should be used where appropriate to control adverse effects.

Transit New Zealand has produced a guideline 'Transit New Zealand Planning Policy Manual SP/Moo1, December 1989' which is a useful reference when considering the effects of land use activities adjacent to highways. The Council will continue to use this document as a reference when considering applications for resource consent which have implications for the land transport infrastructure.

18.5 Anticipated Environmental Results

Implementation of the policies and methods for land transport will result in:

- A land transport system capable of safely and efficiently moving people, goods and vehicles, where practical, throughout the Sounds;
- Minimal adverse effects on the natural and physical resources, the amenities of the environment and the landscape of the Sounds resulting from the construction and maintenance of the land transport infrastructure and operation of transport activities; and
- Minimal interference, caused by land use activities, to the safe and efficient movement of people, goods and vehicles throughout the land transport networks of the Sounds.