Resource Management Act 1991

Dunedin City Council

Privately Requested Proposed Plan Change

Part II: Section 32 Report

Plan Change Request to Rezone Land from Rural to Residential 5

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	Resource Management Act **DUNEDIN CITY COUNCIL** **DUNEDIN CITY DISTRICT PLAN** **Section 32 Report** **Part II**	Plan Change
Plan Change for Rezoning Land from Rural to Residential 5		

This report assesses the Plan Change under Section 32 of the Resource Management Act 1991. This report should be read in conjunction with the Plan Change report.

1. INTRODUCTION

1.1 **Two Note Limited** has sought a privately requested plan change to allow 7.4ha of land currently zoned Rural to be rezoned for a Residential 5 zoning.

1.2 The site is located in the Rural Zone and no special notations affect the site. Given the surrounding land uses and topography, the site represents a sustainable opportunity for an integrated extension and consolidation of the Outram urban area.

2. RESOURCE MANAGEMENT ACT 1991 (RMA)

2.1 Section 32(1)(d) of the Act requires that before a plan change is publicly notified, the applicant is required to carry out an evaluation of the extent to which each objective is the most appropriate way to achieve the purposes of the Act. The Section 32 evaluation should not necessarily be considered full and final. The RMA anticipates the evaluation under s32 as an evolving process with a further evaluation required by the Council before making any decision on a plan change (s32 (2)(a)). Additional evaluations may be required if the Council

considers amendments to the provisions are required before the plan change is formally presented to the Council for adoption.

2.2 This plan change application does not propose any amendments to the current objectives and policies of the Dunedin City District Plan. The analysis to which these provisions have been put avoids the need for further evaluation as part of this plan change. There is a need however, to examine the extent to which the methods chosen, (proposed rezoning including the Outline Development Plan - ODP) are the most appropriate means of achieving the objectives and policies of the District Plan.

2.3 The proposed use of the land for Residential purposes can readily comply with all of the performance standards for this zone or area. Furthermore, the existing provisions will be supplemented by the inclusion of a comprehensive ODP which will reinforce the importance of an integrated outcome for development on the site reflecting the outcomes sought for new urban environments in the District Plan.

2.4 A number of detailed investigations and environmental assessments were undertaken in support of the s32 analysis and these are set out in the annexures which form part of this Plan Change documentation.

3. STATUTORY REQUIREMENTS

3.1 Section 73(2) of the Resource Management Act 1991 ("the Act") states that:

"Any person may request a territorial authority to change a District Plan, and the Plan may be changed in the manner set out in the First Schedule."

3.2 The requirements of a Section 32 Analysis under "the Act" are as follows:

32. Consideration of alternatives, benefits and costs:

(1) In achieving the purpose of this Act, before a proposed plan, proposed policy statement, change or variation is publicly notified, a national policy statement or

New Zealand Coastal Policy Statement is notified under section 48, or a regulation is made, an evaluation must be carried out by (including)

(d) the person who made the request for plan changes that have been requested and the request accepted under clause 25(2)(b) of Part 2 of Schedule 1.

(2) A further evaluation must also be made by:

(a) Local authority before making a decision under clause 10 or clause 29(4) of Schedule 1.

3.3 An evaluation, carried out under Section 32 of the Resource Management Act, must examine:

(a) the extent to which each objective is the most appropriate way to achieve the purpose of the Act; and

(b) whether, having regard to their efficiency and effectiveness, the policies, rules or other methods are the most appropriate for achieving the objectives.

This evaluation is required to take into account:

- *The benefits and costs of policies, rules, or other methods; and*
- *The risk of acting or not acting if there is uncertain or insufficient information about the subject matter of the policies, rules, or other methods.*

The Guidance Note on Section 32 analysis on the Quality Planning website makes the following statement:

Appropriateness – means the suitability of any particular option in achieving the purpose of the RMA. To assist in determining whether the option (whether a policy, rule or other method) is appropriate the **effectiveness** and **efficiency** of the option should be considered:

- **Effectiveness** – means how successful a particular option is in addressing the issues in terms of achieving the desired environmental outcome.

- **Efficiency** – means the measuring by comparison of the benefits to costs (environmental benefits minus environmental costs compared to social and economic costs minus their benefits).

In this case it is the appropriateness of rezoning land from the Rural Zone to the existing Residential 5 zone that needs to be examined.

3.4 In addition to the above, the Act identifies a number of other matters relevant to a plan change. These include:

(i) the requirement to have regard to any Proposed Regional Plan for any matters of regional significance; and any relevant entries in the Historic Places Register (section 74(2))

(ii) the required content of district plans, including a statement of *"methods (including rules if any) to implement the policies"* (Section 75(1)(c))

(iii) the requirement that the District Plan must give effect to the Canterbury Regional Policy Statement (Section 75(3)(c) and

(iv) the requirement that rules must be for the purpose of the Council carrying out its functions under the Act and achieving the objectives and policies of the Plan (section 76(1)).

3.5 The objectives and policies of the District Plan are taken as giving effect to the Otago Regional Policy Statement. Accordingly, any methods that implement and achieve those objectives and policies will give effect to the Otago Regional Policy Statement.

3.6 A number of consents will be required in relation to the development of this land. These will include subdivision and (possible) land use consents from the Council, and consents from the Otago Regional Council (i.e. discharge consents).

4. REPORTS FORMING PART OF THE PLAN CHANGE REQUEST

4.1 A number of reports and investigations were undertaken as part of this request. These are attached as Annexures to the Plan Change Application and address the following:

Report	Purpose
Annexure 4 Stormwater Management Assessment	Describes the system for managing stormwater, geotechnical considerations and the necessary mitigation measures for addressing stormwater.
Annexure 4 Servicing Infrastructure	Addresses considerations relevant to sewerage disposal, water, power, telecommunications and construction.
Annexure 8 Transport Impact Assessment	Reviews the impact of the proposed plan change on the road and transport network.

5. ASSESSMENT OF THE ENVIRONMENTAL EFFECTS OF THE PLAN CHANGE

5.1 An assessment of the environmental effects or impacts of the proposed plan change is set out in Part I. This assessment deals with:

- effects on ground conditions and infrastructure;
- the impact on the transport network;
- compatability of the proposal with the existing Outram Township and surrounds;
- the visual impact of the proposal; and
- the ability to address stormwater.

6. EVALUATION OF THE EFFECTIVENESS OF THE PLAN CHANGE APPROACH AGAINST THE RELEVANT OBJECTIVES AND POLICIES OF THE DISTRICT PLAN

6.1 In terms of the s32 report the key objectives and policies identified as being necessary to this assessment are included in Appendix 1 to this s32 report. The most critical provisions are further addressed below.

6.2 **Objective 8.2.1**

Ensure that the adverse effects of activities on amenity values and the character of residential areas are avoided, remedied or mitigated.

Policies

Policy 8.3.1

Maintain or enhance the amenity values and character of residential

areas.

Policy 8.3.2

Encourage the maintenance of the residential amenity in neighbourhoods and areas by managing the coordination of the subdivision of land.

Policy 8.3.7

Ensure that all development in un-serviced residential areas makes adequate provision for the disposal of effluent on-site without having any adverse effects on the environment.

Policy 8.3.9

Recognise and retain views of rural surroundings from the urban areas, rural townships and settlements.

Objective 8.2.1 and Policy 8.3.1 seek to ensure amenity and character of the residential area is maintained or enhanced. The proposed plan change will provide for subdivision which will provide additional housing land and options for housing development on what is the fringe of the town. Extending the urban boundary as proposed will provide for the reasonable foreseeable needs of future generations in a sustainable manner. No infrastructure is compromised by way of the proposed plan change.

Provision has been made and allowed for with regards to the disposal of all effluent, including sewage and stormwater, to ensure that there is no adverse effect on the environment beyond the site boundaries. This will help protect the quality of the environment for future generations and maintain amenity. Therefore the proposal is in accord with Policy 8.3.7.

Given the proximity of the subject site to the existing residential area, access to Outram village, the site topography and the well designed plans proposed this is not considered to generate any adverse effects on the environment, or surrounding amenity values. Method 8.4.7 of the City Plan states that Structure Plans be the guide for the development of a particular area and define the layout of the area and location of infrastructure. As such the proposal is in accord with Policy 8.3.2. As explained in the application details the proposal is for an Outline Development Plan due to, generally, it's smaller scale which has some similarities to a Structure Plan. The site, through the ODP, has been designed to take into

account the movement of the sun and the expansive views towards the hills. Therefore the proposal is in accord with Policy 8.3.9.

Objective 8.2.2

Ensure that activities do not adversely affect the special amenity values of rural townships and settlements.

Objective 8.2.4

Ensure that the existing urban service infrastructure servicing residential areas is sustained for the use of future generations.

Policy 8.3.6

Ensure that development in rural townships and settlements does not exceed the limitations of the urban service infrastructure.

Policy 8.3.8

Within the urban/rural fence, provide for urban settlement in those areas where the urban service infrastructure can absorb additional development.

The development proposed has considered all the available infrastructure and the additions to this. For this proposal connections to existing water supply are proposed and the creation of roading to Councils standards to provide access to all future allotments within the site. We appreciate the limited potential of this rural community to provide services for wastewater and therefore engineered design of on site wastewater treatment is proposed. Likewise the development will utilize the existing stormwater detention area on the site boundary.

The applicant understands that this level of servicing is required by the development so as to not place pressure on the existing Council infrastructural facilities and that this development can be absorbed and be developed and managed to sustain it for future generations to be in accord with policy 8.3.8.

The applicant will meet all the reasonable costs to service the site for urban activity and as such will satisfy Policy 8.3.6. The Traffic Impact Assessment attached as Annexure 5 to the

application confirms that development in accord with the plan change will promote the safe and efficient use and development of the transportation network.

6.3 ***Objective 17.2.1***

Ensure the effects on the environment of natural and technological hazards are avoided, remedied or mitigated.

Policy 17.3.3

Control development in areas prone to the effects of flooding.

The site is not identified on the District Plan maps as being subject to flooding or ponding. Stop banking to address flood mitigation exists on the true right bank of the Taieri River as it passes Outram Township to the east of this site. As such no additional mitigation is currently proposed within the boundaries of the plan change site.

6.4 **Objective 18.2.1**

Ensure that subdivision activity takes place in a coordinated and sustainable manner throughout the City.

Policy 18.3.1

Avoid subdivisions that inhibit further subdivision activity and development.

Policy 18.3.2

Require any application for subdivision consent for land with the potential for 20 allotments or more to be accompanied by a concept plan.

Policy 18.3.5

Require subdividers to provide information to satisfy the Council that the land to be subdivided is suitable for subdivision and that the physical limitations are identified and will be managed in a sustainable manner.

Policy 18.3.7

Require the provision of all necessary access, infrastructure and services to every allotment to meet the reasonably foreseeable needs of both current and future development.

This Plan Change proposal will ultimately lead to a subdivision development in excess of 20 allotments. As part of this Plan Change proposal the site has been developed to be co - ordinated or attach to existing urban areas. It is noted in the explanation of Policy 18.3.1 that the Council requires subdivider's to make provision for orderly future development of land within the same Certificate of Title. We have included an indicative subdivision scheme plan in the annexures that shows a potential lot layout. This potential lot layout was designed such that infrastructure services could be designed and factored for a future development.

It is important to note that in the methods to achieve the implementation of the objectives and policies the use of an Outline Development Plan as proposed would be deemed an appropriate method. This states;

Method 18.4.4 Structure Plans *[Inserted by C17/2008, 12/02/08]*
Structure plans will be used to guide the development or redevelopment of a particular area and may include defining the future development and land use patterns, areas of open space, the layout and nature of infrastructure (including transportation networks), and other key features for managing the effects of development.

As part of this proposal we have looked at the potential design of any subdivision that consider's and allows for the potential connectivity or development of the adjoining land. We consider that as there is a physical separation of this parcel of land with adjoining land through the stormwater area and the scale of this land there is not necessity to provide a roading linkage (or otherwise) between this and adjoining land. This would accord with Policy 18.3.1 and 18.3.2.

Council has a duty to control the subdivision of land. It is the developer's responsibility to demonstrate that the land is suitable for subdivision. The investigations and assessments that have been undertaken for the rezoning of this site are included within the engineering

assessment included as Annexure 4 to the Plan Change Application. This determines that the land is suitable for subdivision. There appear to be no physical limitations such as instability or subsidence that would make this land unsuitable for future development.

The policies contained within the subdivision chapter of the District Plan consider that the subdivision of allotments essentially keep within the amenity for that zone. In this case we are creating an extention to the Residential 5 zone in Outram and therefore the expectation by subsequent purchasers that every allotment created by subdivision in this zone is suitable for its reasonably foreseeable uses and in keeping with the amenity of that zone.

The services that this proposed development will connect to are available at the boundary of the site now namely water and transportation services. Wastewater treatment is specialized on-site treatment and likewise stormwater disposal from the development utilizes existing disposal area with some additional on site treatments included as part of the development. Therefore in accordance with policy 18.3.7 this development is designed in an integrated fashion to cope with this development however because of the location of this land on the urban fringe of Outram and its scale relative to the size of Outram township, this proposal is not providing services that would result in the ad hoc development of access, infrastructure and services. This is not sustainable management of the natural and physical resources and makes their efficient use unattainable.

For the reasons identified above, the proposed plan change is considered to be consistent with the existing policy framework of the Operative District Plan.

7. EVALUATION OF THE BENEFITS AND COSTS OF THE PRINCIPAL METHODS

7.1 As part of this assessment, consideration must be given to whether the policies, rules or methods, are the most appropriate to achieve the objectives in the District Plan. The proposed plan change does not seek to change the policies, nor does it propose to amend the critical rules of the relevant zones already established in the District Plan. It does, however, propose to include an ODP. To assess whether the rezoning from Rural to

Residential 5 best achieves the objectives of the Plan, an examination of three options was undertaken.

7.2 The evaluation assesses three alternative options against the tests of efficiency, effectiveness, costs and benefits. These are:

- Rezone the site for the residential activities as proposed.
- Develop the site by way of resource consent procedures; or
- Retain the existing district plan provisions.

7.3 Option 1 - Proposed Plan Change rules, policies and methods

Benefits	Costs
General ▪ Provides additional land for residential development on the fringe of the Outram urban area; ▪ Land can be serviced for all but wastewater which is consistent with the current zoning; ▪ Land is within the natural boundary of the township; ▪ Provides for certainty in terms of environmental outcomes; ▪ Recognises existing density of housing environments in the vicinity; ▪ Protects existing adjacent environments; ▪ Expands walkable connections within the town; ▪ Development is managed and integrated with all activities; ▪ An efficient use of land; ▪ Proposed section sizes more effective in meeting a range of affordable community housing needs.	▪ Limited cost to Council recognising that the greater cost of preparation and process will be met by the development. ▪ Reduction in an area of rural land which could be used for rural purposes. ▪ Short term development impacts on neighbouring zones until development is completed. ▪ Future deviations or variations to the Outline Development Plan will require resource consents placing pressure on both Council and landowners to work through a consent process. ▪ Some changes in the character or outlook of the site.

The proposed plan change represents an efficient use of the site's resources. There is sufficient capacity in the water supply and ability to treat wastewater on site through an

engineered designed system to meet additional demand and no inefficient extensions of these services is required. The costs of connecting to these services will be met by the applicant.

The plan change proposes a form and density of residential activity that is already established in the area. The site is adjacent to an area zoned Residential 5 and is identified as a logical extension to the Outram Urban Area. This is seen as optimal for development of the land as the site has limited capacity for infill subdivision development due to ability to service dwellings with wastewater disposal options. The retention of the minimum Residential 5 zone density provides consistent section sizes in keeping with the existing environment and on site effluent disposal that uses best practise wastewater disposal options.

Resource consents for discharge of effluent to land have been sought and approved to protect the site's natural resources, including groundwater quality while appropriate stormwater retention systems will be implemented. Residential activities will be developed on site in accordance with the current District Plan Rules and a new ODP, will protect the amenity values of the adjacent properties and the wider Outram/West Taieri area.

The proposed plan change provides certainty as to how growth will occur and the circumstances (rules) under which that growth will occur. This will allow a more efficient context for decisions on future development costs to be made, as well as for more effective integration between District Plan and other Council plans and strategies for Outram. The conclusion is that this option is effective, provides for the efficient use of the land and infrastructure and there are no significant costs to the community.

7.4 Option 2 – Resource Consents

In addition to the plan change, two principal alternative means or methods have been considered to address the resource management issues and achieve the purpose of the Act. The first alternative option is to apply for non-complying subdivision and land use consents which would allow for the subdivision of the site into residential lots and for buildings to be constructed on those lots.

Benefits/Advantages	Costs/Disadvantages
▪ Applications for non-complying activities do not find favour with a District/City Plan and would be considered on their merits against the relevant District Plan objectives and policies and/or their potential effects on the environment.	▪ Administration would be costly and time consuming. ▪ Potential for the property to be under utilised. ▪ Developed on an ad hoc basis. ▪ Minimal integration of activities infrastructure or amenity.

Development of the site will take a number of years and may occur in a series of stages. Consequently, there is a risk of development occurring in a piecemeal and ad-hoc manner. Under these conditions it is unlikely that any resource consent granted will provide the necessary mix of certainty and flexibility to enable appropriate development in an integrated manner over the entire site. This outcome is inefficient in terms of process, and the likely outcome would likely result in significant ongoing costs, both financially and in terms of time.

7.5 Option 3 – Status Quo

A further alternative is to do nothing and retain the current District Plan provisions which zone the site Rural and as such restrict development on the site. The advantages and disadvantages of doing nothing are set out below.

Benefits/Advantages	Costs/Disadvantages
▪ No requirement to notify plan change. ▪ No costs associated with the plan change process.	▪ Limitations on the types of development. ▪ Pressure on other "less appropriate" land to meet the demand for urban growth. ▪ Potential benefits of integrated development are lost. ▪ Retention of the land in its current format will negate the opportunity for future integrated urban growth in this location.

The current zoning does not reflect a long term urban growth option for Outram or recognise the opportunities and efficiencies in terms of access to infrastructure, services or proximity to the town.

Even though there may not necessarily be a well established growth requirement for Outram (albeit the Willowfields development opposite is well established) , it would be less efficient for new development on the site to go through an ad-hoc release of land without any well defined approach to an integrated and sustainable urban growth outcome. This approach would not respond in an effective manner to potential future growth issues and options for Outram or achieve an effective means of ensuring a coordinated and consistent outcome for administering the District Plan. As such, the risk of not acting in the context of a growth opportunity could result in a sub-optimal urban growth outcome for the community.

7.6 Summary of Options

The provisions of the Outram residential zone is the preferred option for the land. Furthermore, this zone does not require any significant amendment to accommodate the desired urban outcomes for the land, while sustainable solutions exist for stormwater management, the treatment of wastewater and transport infrastructure. The location of the site provides the opportunity to create an efficient and integrated extension to the Outram urban area which will not threaten the viability or amenity of nearby activities.

Only minor additions are necessary to the existing district plan zone rules, being principally the inclusion of an Outline Development Plan. This is designed to consolidate and deliver higher and better infrastructure and amenity outcomes with some certainty for both the developer and future land purchasers.

All costs in respect of development undertaken in accordance with the proposed zoning outcome will be met by the developer. However, the zoning will deliver benefits to the wider community including:

- It will provide a major contribution to the District's economy by safeguarding the opportunity for future residential growth and activity;
- It provides for a growth area well contained by the landscape;
- It will provide the opportunity to achieve urban design enhancement;
- It provides for a degree of certainty for service providers; and
- It recognises the location of the land and the contribution that it can make to the visual setting of Outram.

7.7 Summary - Efficiency and Effectiveness

The provisions that are the most efficient are those that achieve the desired objectives or outcomes at the least overall cost when compared to other provisions. For the purpose of this Section 32 evaluation, this is limited to those objectives, policies, and methods relevant to the change. The objectives and policies of the residential zones have been compared to the outcomes sought by the Rural Zone. Rezoning as sought has the highest level of effectiveness and efficiency and the lowest level of uncertainty. It is concluded that the proposed rezoning better achieves the objectives and policies of the District Plan than do the existing Rural zone provisions.

8. CONSISTENCY WITH OTHER RELEVANT PLANS

8.1 Section 74 of the RMA requires that an application for a plan change address other relevant planning documents that apply to the area. In addition to the District Plan, the other relevant plans to which regard has been had are set out below:

- Otago Regional Policy Statement (RPS)
- Natural Resources Regional Plan
- Long-term Council Community Plan (2006-2016)
- Regional Land Transport Strategy

8.2 Otago Regional Policy Statement

8.2.1 The Otago Regional Policy Statement ("RPS") has been operative since 1 October 1998. The RPS provides an overview of the resource management issues of the region. It sets out how natural and physical resources are to be managed in an integrated manner to promote sustainable management. District Plans have been prepared in accordance with the RPS and the Resource Management Act directs the Council to have particular regard to RPS.

8.2.2 The objectives and policies of the Dunedin City District Plan are taken as giving effect to the provisions of the RPS and therefore any methods that implements the objectives and policies if the District Plan will give effect to the RPS.

8.2.3 The proposed plan change has been assessed as being consistent with the relevant zone purpose, objectives, policies and performance standards of the District Plan, and any actual or potential cumulative adverse effects have been assessed as likely to be no more than minor. It is therefore concluded that the proposed plan change will not render the District Plan inconsistent with the RPS.

8.2.4 However, it is appropriate to address a number of particular policy provisions within the RPS given that the RPS contains objectives and policies that may be relevant to the plan change. These are set out below.

- Chapter 6 of the RPS deals with water. Objectives and policies in this section deal with Issues of concern to Kai Tahu and managing discharges and water quality and in particular Objectives 6.4.1 - 6.4.3 and Policies 6.5.1 – 6.5.3 which relate to essential relationships that Iwi and Runanga have with Otago's water resources and managing the effects of discharges on water quality, effective allocation of water and its consumption. The overall intent and purpose is for the sustainable management of the resource for future generations. Provision for stormwater management has been addressed in the plan change.
- Chapter 9 of the RPS deals with the built environment. Objectives and policies in this section address the effects of development on the environment and on the natural and physical resources. Relevant objectives and policies in Chapter 12 include Objective 9.4.1 and Policies 9.5.2-9.5.5, which deal with managing the effects of urban development and settlement expansion on amenity values, infrastructure and any adverse effects of subdivision. Outram is part of an important landscape in the Taieri foothills being one gateway to the rugged Strath Taieri and Central Otago areas. As such, the plan change has been assessed as not adversely affecting amenity values safeguarded by the existing comprehensive set of rules applicable to the Residential 5 zone and the proposed ODP.

  Objective 5.4.1 and 5.4.2 and Policy 5.5.2 in Chapter 5 relate to managing the effects of development on the land resource, in particular soils. This site is within an area of high class soils (refer map 75 DCC District Plan). The purpose of this provision is to ensure that any alternatives are fully considered before

high class soils are selected for a use that will result in their loss. The policy is intended to enable the benefits of development but also to retain the primary productive and life-supporting capacity of the high class soil resource for future generations. An assessment within the Plan Change application detailed the matter of high class or versatile use of soils.

There may be other objectives and policies within the Regional Policy Statement that may outweigh the importance of retaining the high class soil resource in a particular circumstance. In these situations, the loss of the high class soils may be unavoidable and it needs to be balanced as to the needs of future generations are taken into account by the loss of this area to urban development.

8.2.5 In summary, there will be no adverse effects which result in environmental outcomes inconsistent with the above objectives and policies.

8.3 Otago Regional Plan: Water

8.3.1 The relevant provisions of this plan relate to:

- water quality and quantity;
- reducing the adverse effects on the environment of the disposal of wastes; and

8.3.2 Water

The engineering servicing report confirms that the future dwellings will be provided with a reticulated water supply and there will be no adverse effect on groundwater quality.

8.3.3 Sanitary Sewer

The engineering servicing report confirms the ability for future dwellings to have a connection to community wastewater scheme for this development. The Otago Regional Council has advised that there are no specific issues of groundwater contamination based on the methods of disposal proposed and the capability of the wastewater system to deal with effluent disposal at this level. As such there will be no adverse impact on groundwater quality.

8.3.4 Stormwater

A stormwater discharge consent will be required from the Otago Regional Council for discharge of stormwater and contaminants to ground. This discharge will be subject to the relevant rules of the Regional Plan: Water. Discharge to ground is a discretionary activity under the NRRP. An infiltration system will be required to store and treat stormwater prior to discharge and roof water from individual properties will be discharged directly to ground.

8.5 Long-Term Council Community Plan

8.5.1 The LTCCP contains seven community outcomes. All of these have some relevance to the consideration of the plan change. In particular:

Economic Well-being

Outcome 1 : Wealthy Community: a city that enables strong local business growth and employment growth, and attracts increasing numbers of new businesses and tourists.

This will be achieved by having:

Dunedin will be regarded as a 'world-class' city to live and work in. This will be achieved through encouraging well-planned investment in people and sustainable businesses, building economic growth focused upon top quality products from all sectors. The Council will ensure the city's most valued assets, structural and natural, are protected.

Dunedin has long been a fertile place for high achievers. To remain so, the city will aspire to offer high quality education and employment opportunities for all its citizens. Its infrastructure will provide a strong support base for entrepreneurs assisting them to 'box above their weight'. Dunedin's first-rate reputation as a city and as a place to do business will be upheld by active promotion, attracting further investment and motivated residents.

Outcome 2: Accessible City: a city with a transport system that supports economic development and where people move about easily and safely.

This will be achieved by having:

Dunedin's people will interact freely with each other and the world through the city's reliable and professional transport and telecommunications systems. Their requirements for recreation, business and education will be met, taking advantage of new, proven technologies.

The city's transport network will integrate environmental, urban design and land-use considerations. A high standard of footpaths, roads and public transport will cater for the majority of users, supporting and enhancing the lifestyles of all residents. The movement of people and goods throughout the city will flow smoothly. Quality options for world-wide transport by air and sea will be supported, and, along with land transport, provide for all the community's needs.

Environmental Well-being

Outcome 3: Safe and healthy people: a city where residents feel safe and enjoy a healthy lifestyle.

This will be achieved by having:

Clean air, water and consideration for the environment all featured strongly in the picture of the future which the community gave the Council. They want Dunedin to be a safe and healthy city. They want a city with clean drinking water, that's smart about recycling its rubbish, and responsible about treating our wastewater. It is also important for people to feel safe in their homes and on the streets.

The community told the Council that it was very important to continue the upgrade programme for water and wastewater treatment. A strong commitment to other public health functions also needs to be maintained. There is general acceptance that the Council may have to increase spending in this area. Safety on the streets is another area where the Council has been asked to do more.

Outcome 4: Sustainable City and Environment: a city that makes the most of its natural and built environment and which meets the needs of today's community, without jeopardising the ability of future generations to meet their needs.

This will be achieved by having:

Dunedin is unique in the way it is surrounded and permeated with natural and rural landscapes. Results of the Council's public consultation strongly support valuing and protecting our unique natural biodiversity while enhancing the city and its surroundings with quality development. Our city's outstanding design features, both natural and built, will be reflected in future emphasis on
quality in all forms of development.

Dunedin is our place and all of us have an impact on it. Council will promote development that withstands the test of time without detriment to the environment.

Social and Cultural Well-being

Outcome 5: A city that celebrates and supports culture and excellence in the arts and education.

This will be achieved by having:

Dunedin has an international reputation as a centre for learning excellence, upon which the city relies for a significant percentage of its employment. This education resource is a boon for Dunedin's resident population, offering learning opportunities second to none. Support for the growth and development of the city's education institutions is a high priority for the Council. It can directly support the attraction of students to the city by ensuring Dunedin offers a vibrant, unique lifestyle abundant with leisure and entertainment opportunities.

The large student population adds to the diversity of our cultural identity and assists the development of our celebrated arts community. The arts and our rich historical heritage, including that associated with tangata whenua, are treasured as adding depth to our sense of place and belonging. The Council will continue its active role in preserving, adding to and profiling these cultural assets for the benefit of all.

Outcome 6: Supportive Community: A city where residents feel included and connected with their wider community.

This will be achieved by:

Supportive neighbourhoods are great contributors to people's sense of well being and belonging. Tolerance and acceptance of ethnic, age and other differences helps build or maintain communities that are civilised, positive in outlook and resilient in times of need. The Council helps by providing the bedrock of local governance, services and public consultation from which strong communities can grow. Maintaining a healthy democratic process is essential for the community's sense of ownership and involvement in the city.

Many vital community services could not function without the not-for-profit sector and volunteer assistance. The Council envisages a future where this sector and volunteers are valued and recognised for their achievements.

Outcome 7: Active City: a city that provides and encourages participation in a broad range of sporting, recreational and leisure activities.

This will be achieved by:

It is generally understood that an active lifestyle is advantageous to our health and well-being. From swimming pools to bush tracks, Dunedin has a wealth of recreation and leisure facilities enabling its people to lead active lives in an enormous variety of ways. The Council is dedicated to promoting the use of these facilities while maintaining and enhancing their quality and variety, recognising they are a major attraction for both visitors and residents.

The importance of activity to the city's young people, their health and development is also recognised. As such, the Council invests in dedicated sport and leisure services, encouraging children and families to be active together.

8.5.2 The plan change has had particular regard to the above community outcomes. The use of land as proposed will consolidate the urban area of Outram with a site layout that accentuates access to sunlight, open space and integration with the surrounding areas. It also provides for the effective planning for future development by ensuring that land identified for future urban growth is utilised for that purpose.

Infrastructure is available and development of the land as proposed will be an efficient and effective use of that resource.

8.6 Regional Land Transport Strategy

8.6.1 The Regional Land Transport Safety contains policies and methods which address all modes of transport. Of particular relevance is that these provisions seek to create an effective and efficient transport network that accommodates vehicles, as well as cycles and walkways.

8.6.2 The plan change request has regard to the provisions of the Regional Land Transport Strategy by creating clear and safe footpath and roading links within the site and to adjacent areas.

8.7 Summary

The proposed Plan Change will assist in implementing the Council's strategies in relation to urban growth within the Outram area. It will provide for additional urban growth at Outram in a way that will not compromise the quality of this rural servicing town or the characteristics of Outram, while fulfilling the objectives and policies of the Dunedin City District Plan.

Extending the urban boundary to encompass the land south of Formby Street and Outram Settlement and enabling its development predominantly in terms of the existing Residential rules is a more effective and efficient method of achieving the Plan's objectives than the current resource management regime which applies to the land.

9. INSUFFICIENT INFORMATION

9.1 The Resource Management Act requires the Council to evaluate the risk of acting or not acting if there is uncertain or insufficient information. There is no reason for not acting on the basis of insufficient information. Retaining the existing zoning will continue to implement many of the objectives and policies of the District Plan. However, given the information provided and the direction the District Plan takes in respect of new urban growth, then the proposed change to the Dunedin City District Plan is consistent with those outcomes including an integrated and compact approach to urban growth, maintaining residential variety and ensuring a choice of living environments.

10. PURPOSE OF THE ACT

10.1 This purpose has two components, one enabling and one regulatory. The enabling component allows for people and communities to use, develop, and protect resources in any way they desire in their pursuit of wellbeing provided this satisfies the terms of the regulatory component.

10.2 In terms of the enabling component, it is clear that the development of the land in the manner proposed will allow for urban development that provides for a scale and form of housing development consistent with the principles directing urban growth set out in the District Plan and the Long Term Council Community Plan (LTCCP).

10.3 The first regulatory matter addresses the potential needs as they relate to the subject land, which is to ensure development can take place in a manner that will not adversely affect natural and physical resources. This has been addressed in detail in the assessment reports part of the plan change and no adverse effects on the site's resources or the surrounding environment are anticipated.

10.4 The second regulatory matter is the life supporting capacity of air, water, soil and ecosystems. It is considered that the proposed plan change will not threaten any of those matters.

10.5 The final regulatory matter is to avoid, remedy and mitigate adverse effects. Existing standards within the District Plan will effectively control the scale and overall density of future development in a manner consistent with urban activity in the area.

10.6 The District Plan rules provide an appropriate and accepted means to control the scale of development. In addition, a comprehensive and integrated approach, defining the development form by way of an Outline Development Plan, will ensure the integration of all resource management outcomes including stormwater, infrastructure and integration with local and district wide transportation networks. The surrounding roading structure can accommodate the development and locating the development as an adjunct to Outram is an efficient use of the site and its resources.

10.7 Overall, it is considered that the proposed change is in general accordance with the purpose of the Act.

11. CONCLUSION

11.1 Based on the assessment undertaken, the overall conclusion is that the proposed rezoning will achieve the objectives of the District Plan providing an integrated and sustainable option for urban growth at Outram. It is further concluded that the benefits of the proposed rezoning significantly outweigh the costs.

ANNEXURE 8:TRAFFIC IMPACT ASSESSMENT

Urbis
Group of Companies

Traffic Impact Assessment

Private Plan Change Application

Formby Street, Outram

November 2011

Dunedin City Council

Reference: 478002

Status: Final

Revision: 0

Unit 10/211 Ferry Road, Waltham 8011, PO Box 10318 8145
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QUALITY ASSURANCE

Project Reference:	478002	
Title:	Traffic Impact Assessment – Private Plan Change Application	
Client:	Mockford Investments Ltd	
Filename:	478002 111117 Traffic Impact Assessment FINAL.doc	
Version:	Draft	
Prepared By:	Wayne Gallot	Transport Planner

1.0 INTRODUCTION

1.1 Background

The following traffic impact assessment (TIA) relates to a privately requested plan change application for a 7.74 ha area of rural land on the western fringe of Outram village. The purpose of the plan change is to allow the development of 36 residential allotments. It is intended that this TIA will accompany and be included as part of the plan change application to be lodged with the Dunedin City Council.

1.2 Purpose of Report

The TIA will:

- Briefly describe the site and surrounding traffic environment;
- Briefly describe the traffic related components of the proposal;
- Provide a traffic generation estimate for the proposed development;
- Confirm any traffic related District Plan non-compliances;
- Comment on the suitability of the internal private road network and access location, and;
- Comment on the ability of the road network to accommodate site generated vehicular traffic, and the effects of this traffic on residential amenity.

1.3 Site Information

The proposed plan change site is located behind existing residential properties along the southwest side of Formby Street, Outram, generally opposite Beaumaris Street and the Outram School. The rear site has two access legs to Formby Street, one located opposite and slightly south of Lyndas Street and the other located approximately 200m south of Beaumaris Street.

The proposed plan change site occupies an area of approximately 7.74 ha, and is legally described as Pt Section 1 Block V West Tairei. The site is presently used predominantly for pastoral grazing, however there is an existing house located in the southern corner of the site and a shed that is currently used as the base for a spraying contractor but was also previously used (along with some of the surrounding land) as part of a plant nursery activity.

2.0 THE TRAFFIC ENVIRONMENT

2.1 Overview

The road network in the vicinity of the site is shown in Figure 1 below:

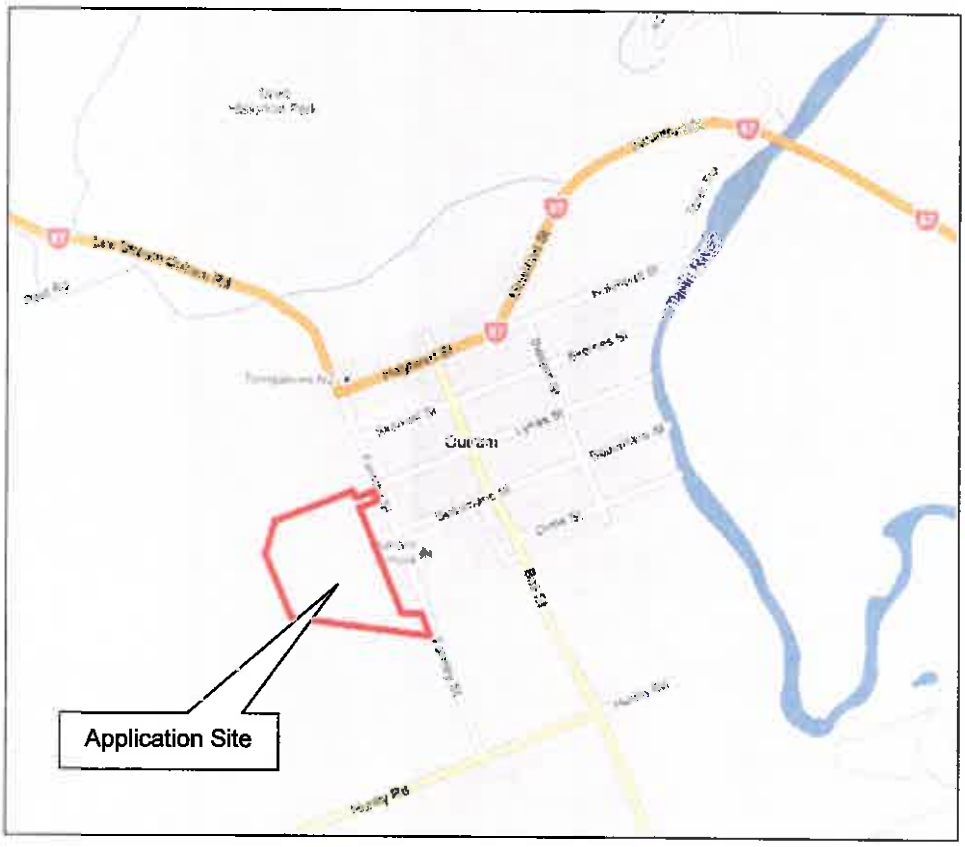


Figure 1: The existing road network in the vicinity of the application site.

2.2 Formby Street

Formby Street is classified as a local road in the Council's roading hierarchy and, as such, fulfils a predominant property access function.

The construction standard and formation of Formby Street varies along its length between Huntly Road and Holyhead Street (SH 87). South of the site, Formby Street has a sealed carriageway of approximately 6-7m providing a single traffic lane in each direction separated by a marked centreline. In this location, there are no kerbs or sealed footpaths. Between Beaumaris Street and the southern corner of the site, Formby Street is formed with a 10m sealed carriageway with kerb and a footpath on the west side of the road only. The marked centreline is off-set from the kerb by approximately 6m to allow for on-street parking on the

west side of the road, leaving around 4m each for the northbound and southbound traffic lanes. No Stopping lines have also been installed on the east side of Formby Street along the majority of the Outram School frontage. North of Beaumaris Street, Formby Street is provided with kerbs and footpaths on both sides of the road.

Figures 2 and 3 below show the general formation of Formby Street in the vicinity of the site.

Figure 2: Formby Street (view looking southeast from Beaumaris Street)

Figure 3: Formby Street (view looking northwest from Beaumaris Street)

The NZTA Crash Analysis System (CAS) database indicates an estimated volume of around 500-600 vehicles per day on Formby Street in the vicinity of the site, increasing to around 700-750 at the northern end of the road. While the Outram School main entrance and parking area is on Beaumaris Street, the school contributes to the Formby Street traffic environment, especially during the before and after school periods. There is also evidence of all day parking on Formby Street in the vicinity of the school (as shown in Figure 2) that is most likely associated with teachers and staff.

Formby Street has a posted speed limit of 50 kph, increasing to 70 kph just north of Huntly Road.

2.3 Holyhead Street (SH 87)

Between Formby Street and Mountfort Street, Holyhead Street is classified as a National Road in the Council's roading hierarchy and forms part of the SH 87 route.

This section of Holyhead Street is formed with a 14m sealed carriageway within a 20m road reserve, providing a single 3.5m wide traffic lane in each direction delineated by a marked centreline and edge lines and generous parking lanes on each of the road. Footpaths are

provided on both sides of the road. Figure 4 below shows the general formation of Holyhead Street (SH 87).

Figure 4: Holyhead Street (view looking southwest from Hoylake Street)

The nearest NZTA traffic count stations to Outram are located at West Taieri (approximately 3km northwest of Outram) and Wylies Crossing (approximately 4km east of Outram). The West Taieri count station is a continuous count site, and data supplied by NZTA for the 3 month period July-September 2010 indicates an average daily volume of around 680 vehicles per day during the week and 600 vehicles per day on weekends. The Wylies Crossing count station is a sample site which was last recorded by NZTA in mid July 2010. data collected at this time indicates an average daily volume of around 2540 vehicles per day during the week, with slightly higher volumes of around 2600 vehicles per day on the weekend. The state highway volumes recorded at the Wylies Crossing count station are likely to be more representative of the volumes carried on Holyhead Street due to Outram residents commuting to/from employment areas to the east (Mosgiel and Dunedin) and weekend recreational traffic from residential catchment areas to the east.

Further analysis of the NZTA count data from the Wylies Crossing site reveals distinct AM and PM commuter peaks of around 200-300 vehicles per hour, with a notable westbound bias in the AM peak and the reverse in the PM peak. This supports the theory that there would be a reasonable number of Outram residents that commute to places such as Mosgiel

and Dunedin for work. Peak flows of around 270-290 vehicles per hour occur in the mid to late afternoon periods on the weekend. These traffic patterns are illustrated in Figures 5 and 6 below.

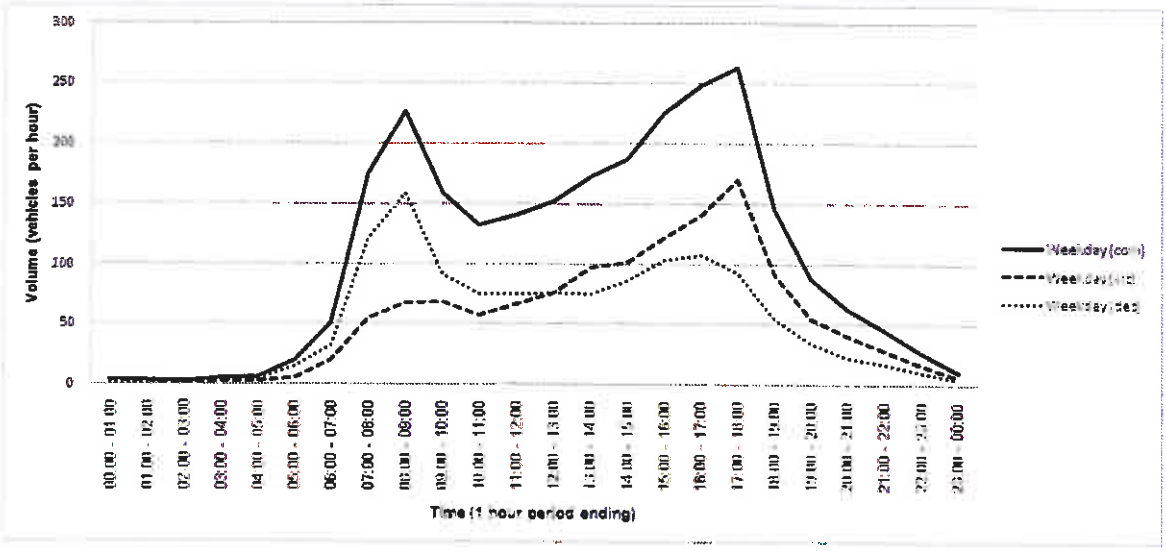


Figure 5: Average Weekday SH 87 Traffic Volumes @ Wylies Crossing (July 2010)

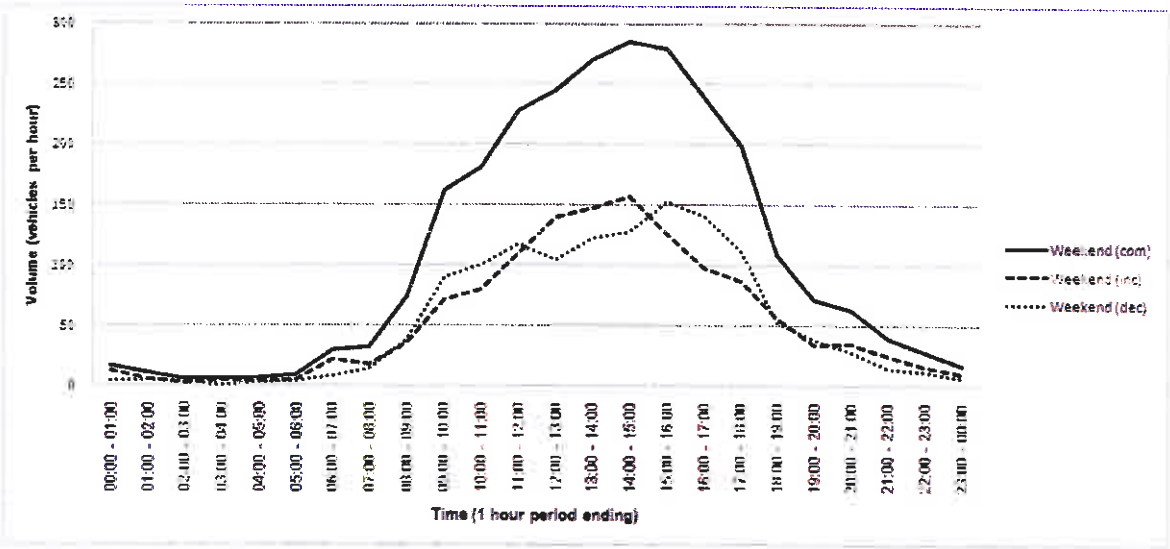


Figure 6: Average Weekend SH 87 Traffic Volumes @ Wylies Crossing (July 2010)

While Holyhead Street forms a T-junction with Formby Street, the priority follows the SH 87 route between Holyhead Street and Formby Street north of Holyhead Street. This priority flow is emphasized with the appropriate centerline and edge line markings, with Give Way signs and markings controlling the southern leg of Formby Street. A short right turn bay is provided on the northern Formby Street approach for vehicles continuing south on Formby

Street. Sight distances from Formby Street are excellent and exceed all relevant design guidelines. Figure 7 below shows an aerial view of the intersection layout.

Figure 7: Formby/Holyhead Intersection Aerial View

2.4 Beaumaris Street

Beaumaris Street, which is classified as a local road in the Council's roading hierarchy, is located opposite and mid-way along the Formby Street frontage of the application site. Beaumaris Street typically has a 14m sealed carriageway with no centre line marked except on intersection approaches. Kerb and channel is provided along the north side of Beaumaris Street, but no footpath is provided. A footpath is provided on the south side of the road at the same grade as the roadway and separated by a marked edgeline.

Unrestricted on-street parking is provided along both sides of Beaumaris Street, with angle car parking and a bus stop marked on the south side of the street in front of the school. Parking demand on Beaumaris Street is obviously greatest in the before and after school periods, however all-day is still evident as shown in Figure 8 on the following page.

Figure 8: Beaumaris Street (view looking west towards Formby Street)

The NZTA Crash Analysis System (CAS) database indicates an estimated volume of around 300 vehicles per day on Beaumaris Street.

The intersection of Beaumaris Street with Formby Street is controlled with Give way signs and markings against Beaumaris Street.

2.5 Lynas Street

Lynas Street, which is classified as a local road in the Council's roading hierarchy, is located opposite the northern corner of the application site. Lynas Street has a sealed carriageway width of around 8m, with no kerbs or footpaths on either side of the road.

The NZTA Crash Analysis System (CAS) database indicates an estimated volume of only around 80 vehicles per day on Lynas Street.

As with Beaumaris Street, the intersection of Lynas Street with Formby Street is controlled with Give way signs and markings against Lynas Street.

2.6 Road Safety

A search of the NZTA Crash Analysis System (CAS) database reveals that there has only been one reported crash on Formby Street in the five year period 2006-2010 (including available data for 2011). This crash involved a parked car on Formby Street just south of Lynas Street that was hit by another vehicle travelling south on Formby Street late on a Friday night. The vehicle that hit the car did not stop, but someone reported seeing a truck leave the area around the time of the crash.

A wider search of the CAS database for the whole Outram village area revealed a further six reported crashes for the same period. These crashes included the following;

- A parked vehicle on Hoylake Street that was hit by another vehicle just after midnight on a Friday night. As with which the Formby Street crash, the vehicle that hit the car did not stop.
- A car on Huntly Road that lost control in icy conditions just west of Allanton Road.
- An inexperienced/restricted licence driver that parked behind another car on Mountfort Street, but had left the car in gear and when they took their foot off the clutch the car lurched forward and hit the vehicle parked in front.
- A car reversing out of a private driveway on Mountfort Street hit a postie riding their motorcycle on the footpath across the driveway. This crash resulted in minor injury.
- A car turning right out of Holyhead Street into Mountfort Street, hit a cyclist travelling south on Mountfort Street. The driver did not notice the cyclist at first, stopped, but then pulled forward thinking the cyclist was going to pass behind the car. The driver's actions confused the cyclist and they hit the side of the car, sustaining serious injury as a result.
- A tractor travelling east on Holyhead street just east of Hoylake Street hit some overhead power lines with a pole driver that was attached to the tractor.

The crashes summarised above are illustrated in Figure 9 on the following page.

Figure 9: Reported Crashes 2006-2011

The relatively low number of reported crashes is a reflection of the low traffic volumes in the area as well as the simple road layout. The nature of the reported crashes, along with the contributing factors, also indicates that most of the crashes were a result of driver error and/or environmental factors rather than inherent design deficiencies in the surrounding road network. Of particular relevance to this application is that there have been no reported crashes at the intersection of Formby Street and Holyhead Street, which is the intersection that is likely to receive the majority of additional traffic generated by development of the application site.

3.0 THE PROPOSAL

3.1 General Description

It is proposed to re-zone the 7.74 ha application site from Rural to Residential 5. The purpose of the proposed plan change is to provide for future development of the site for residential dwellings.

3.2 Outline Development Plan (ODP) and Indicative Subdivision Plan

It is proposed that the development of the application site will be in general accordance with the Outline Development Plan (ODP) and indicative subdivision layout as shown in Figures 10 and 11 below.

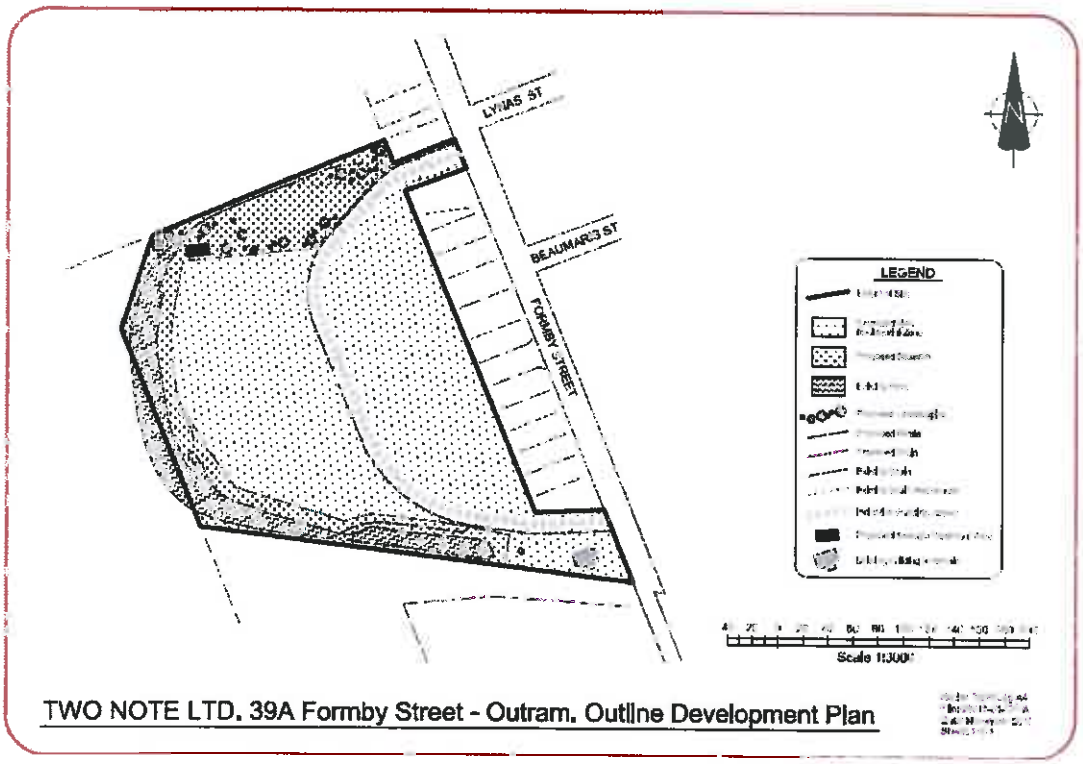


Figure 10: Outline Development Plan

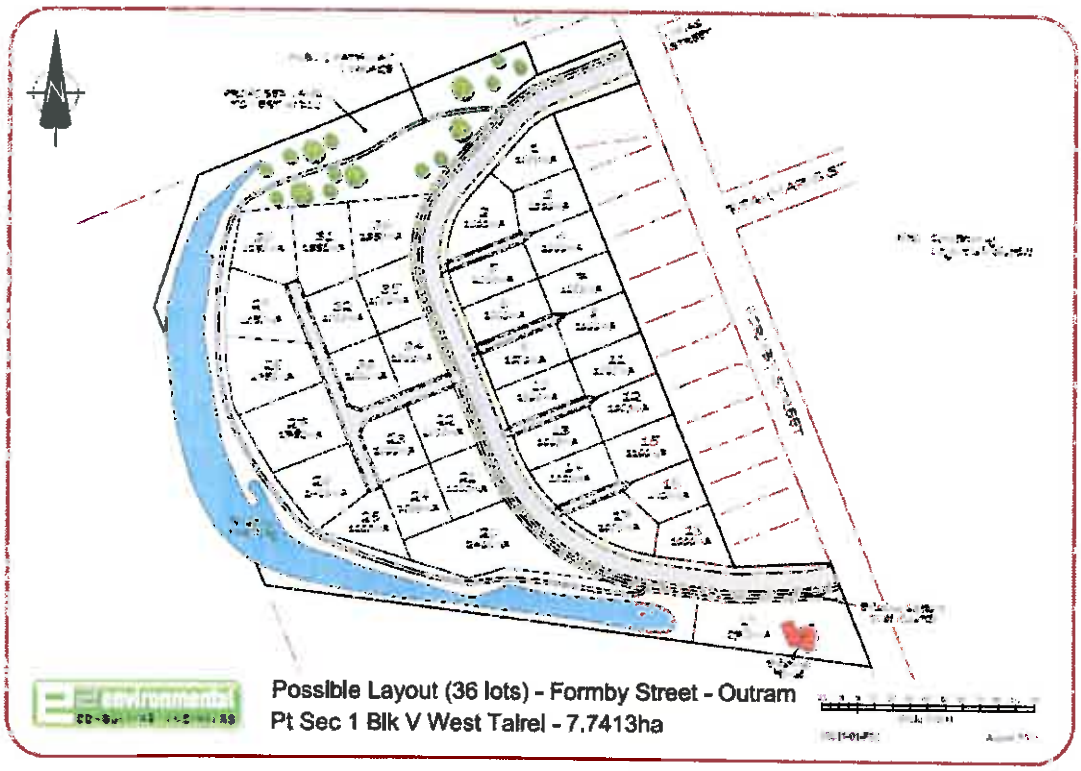


Figure 11: Indicative Subdivision Layout

The key traffic related features of the indicative subdivision layout can be summarised as;

- Development of 36 residential allotments, including proposed lot 19 which contains the existing dwelling. The proposed allotments range in size from 1000m² to 2700m².
- The residential lots will be served by a new crescent road to be constructed through the site and vested with the Council. The proposed road will have a sealed carriageway width of approximately 10m within a 20m road reserve and will be provided with a 1.5m wide footpath on one side only.
- Rear lots to the west of the proposed road (lots 23-33) will be accessed via a single shared 6m wide ROW, while rear lots to the east of the proposed road (lots 3-4, 7-8, 11-12 and 15-16) will be accessed in pairs via four shared 4m wide ROWs.
- The proposed new road will result in the construction of two new intersections on the western side of Formby Street, one immediately south of Lynas Street and the other approximately 200m south of Beaumaris Street.

3.3 Site Generated Traffic

Site Generated Traffic - Estimated Volume

Traffic generation rates of 10-12 vehicle trips per dwelling per day are commonly adopted by traffic engineers to derive generation estimates for residential developments in urban areas. This is consistent with the rate of 10.4 vehicle trips per dwelling per day suggested in both the NZTA Planning Policy Manual and the Transfund research Report TR209 (Trips and Parking Related to Land Use).

TR209 notes however that increased distance from a major urban centre can lead to increased trip linking, resulting in lower residential generation rates. This is consistent with Urbis survey data of residential settlements in Takamatua, Hanmer Springs and Wanaka and of rural-residential traffic generation which indicated generation rates as low as 4 vehicle trips per dwelling per day.

Based on the size of Outram and its location relative to Mosgiel and Dunedin, it is considered that the actual generation rate for residential activities in Outram would be around 6-8 vehicle trips per dwelling per day. For the purpose of this assessment however, a conservatively high rate of 10 vehicle trips per dwelling per day will be adopted.

As noted earlier, the indicative subdivision layout shows the development of 36 new lots, one of which will contain the existing dwelling on the site. Based on development of the remaining 35 allotments for residential purposes, the proposal is estimated to result in an additional 350 vehicle trips per day on the surrounding road network.

In terms of peak generation, TR209 and the NZTA Planning Policy Manual suggest residential activities in urban areas have an average generation of 1.2 vehicle trips per dwelling per hour. For the purpose of this assessment, a rate of 1 vehicle trip per dwelling per hour will be adopted. On this basis, development of the proposed 35 vacant lots will result in an additional 35 vehicle trips per hour on the surrounding road network during peak periods.

Site Generated Traffic - Distribution Scenario

Given the location of the site relative to the local commercial areas, and the location of Outram relative to Mosgiel and Dunedin, it is assumed that the majority (say 80%) of site generated traffic will travel to and from destinations to the north and east of the site via Formby Street and Holyhead Street. Site generated traffic travelling to and from destinations to the south (eg Allanton, the airport and SH 1) are likely to use Formby

Street to access Huntly Road and Allanton Road. It is possible that some people may use Beaumaris Street or Lynas Street to cut across to Hoylake Street, however these volumes will be negligible.

In urban residential environments, an 80/20 flow bias is typically assumed during the peak hours. In this situation however, the influence of commuter traffic is expected to be even more obvious and the likelihood of increased trip linking is such that it will be assumed for the purpose of this assessment that there will be a 90/10 outbound bias in the AM peak and a 90/10 inward bias in the PM peak.

Figure 12 below shows the assumed distribution of site generated traffic (excluding traffic generated from the existing dwelling on proposed lot 19).

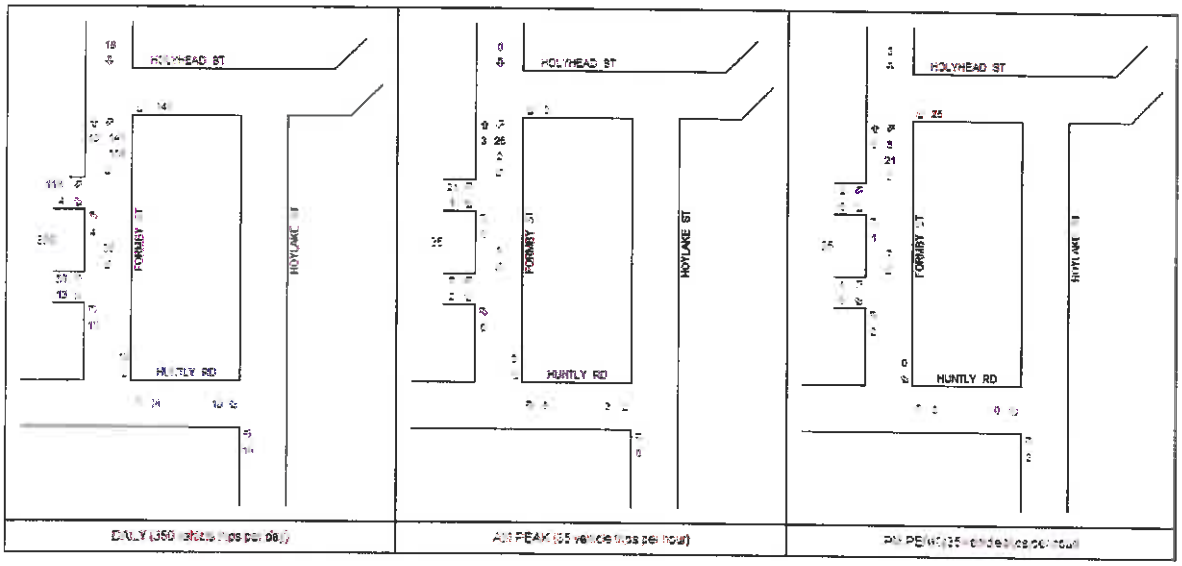


Figure 12: Site Generated Traffic Distribution

4.0 INDICATIVE SUBDIVISION LAYOUT DESIGN COMPLIANCE

The indicative subdivision layout has been assessed against the traffic related rules in the Dunedin City Council District Plan, as well as the Councils engineering development standards.

4.1 Dunedin City Council District Plan

The indicative subdivision design fully complies with all traffic related rules in the District Plan including Rule 18.5.3 (Access) which requires every allotment to have legal and physical access to a formed road and Rule 20.5.7 (Vehicle Access Performance Standards) which specifies the minimum legal and formed widths of ROWs.

In terms of individual vehicle access to the proposed residential allotments, it is expected that these will be designed in accordance with District Plan standards at the time the individual allotments are developed.

4.2 Proposed Dunedin Code of Subdivision Development 2010

Part 3 (Roads and Transportation) of the Proposed Dunedin Code of Subdivision Development 2010 requires the design and construction of roading and transportation infrastructure to be in accordance with Part 3 (Roads) of NZS 4404:2004 except where that document has been amended by the Council's Code of Subdivision Development.

In terms of road design standards, Table 3.1 in NZS4404:2004 is over-ridden by Table 3.1R in the Council's Code of Subdivision Development which requires local residential roads serving less than 100 dwelling units to have a minimum sealed carriageway width of 6m within a 16m wide road reserve. Indented on-street parking is required at the rate of 1 space per 4 dwelling units, and footpaths are required on both sides of the road.

The 10m sealed carriageway width of the proposed crescent road through the site provides the minimum 6m sealed width required, and the additional 4m width allows for on-street parking on both sides along the entire length of the road. The only departure from the Council's Code of Subdivision Development design standards for the proposed crescent road therefore only relates to the provision of one footpath whereas two are required.

The ROW widths indicated on the indicative subdivision layout fully comply with the Council's Code of Subdivision Development design standards.

5.0 ASSESSMENT OF EFFECTS

5.1 Mid-Block Effects

Based on the earlier traffic generation estimates and distribution assumptions, the proposal will result in increased traffic volumes on the surrounding road network as shown in Table 1 below. Note that the existing traffic volumes are based on estimated volumes indicated in the NZTA CAS database, except for the SH 87 volumes which are the average weekday volumes recorded by the NZTA at the Wylies Crossing and West Taieri count stations.

Location	Existing	Proposed	Future
Formby Street (south of Holyhead Street)	744	316	1060
Formby Street (north of Huntly Road)	519	36	555
Formby Street SH 87 (north of Holyhead Street)	680	36	716
Holyhead Street SH 87 (east of Formby Street)	2540	280	2820
Huntly Road (east of Formby Street)	545	36	581
Allanton Road (south of Huntly Road)	801	36	837

Table 1: Existing and Future Mid Block Traffic Volumes

Table 1 shows that, despite noticeable increases on Formby Street and Holyhead Street (due to the low ambient volumes), resultant traffic volumes on all roads surrounding the site will remain relatively low and entirely within the geometric capacity of those roads.

While the increased traffic volumes will be noticeable along Formby Street, the resultant traffic volumes will still remain below the threshold of 2000 vehicles per day for which anecdotal evidence suggests is the level where traffic flows begin to affect the amenity of residential properties along the road.

5.2 Intersection Effects

Based on the earlier traffic generation estimates and distribution assumptions, the critical intersection to assess in terms of potential effects of additional site generated traffic is the intersection of Formby Street with Holyhead Street SH 87.

While turning movements at this intersection have not been surveyed, the NZTA count data and CAS estimates suggest that turning volumes at the intersection will be quite modest such that the intersection is likely to operate currently with an excellent level of service (ie. negligible delays and queues). Figure 11 earlier showed that the proposal is

estimated to result in an additional 31 vehicle movements per hour through the Formby/Holyhead intersection during peak periods. During the AM peak period it is estimated that development of the application site will result in an additional 25 vehicles per hour turning right out of Formby Street into Holyhead Street. This volume represents an average of less than 1 vehicle every 2 minutes and, as such, is unlikely to have any measurable effect on the existing level of service that the intersection operates at.

In terms of safety, the earlier CAS review revealed that the intersection does not have any obvious safety issues. This is likely to be a reflection of the excellent sight distances available at the intersection as well as the relatively low ambient traffic volumes and the low speed environment in the vicinity of the intersection. The addition of 31 vehicles movements per hour through the intersection during peak periods will have no effect on the continued safe operation of this intersection.

5.3 Connectivity

The location of the site relative to the surrounding road network, as well as the simple internal road/access design proposed, provides for excellent connectivity for all transport modes. For vehicular traffic, the site is well situated to access the both SH 87 and SH 1 (via Allanton Road). The site is also within convenient walking distance to attractions in Outram such as the school, reserve/sports grounds and commercial activities on Holyhead Street, with the proposed footpath along the crescent road connecting to established paths along Formby Street and other roads in the vicinity.

6.0 OBJECTIVES AND POLICIES

The Transportation section of the District Plan contains a number of objectives and policies that are relevant to this proposal as summarised in Table 2 below.

Objective 20.2.2	Ensure that land use activities are undertaken in a manner which avoids, remedies or mitigates adverse effects on the transportation network.	Additional site generated on the surrounding road network resulting from development of the application site will have a negligible effect on safety or efficiency.
Objective 20.2.3	Achieve integrated management of the roading network, including pedestrian and cycle use, with rail, air and sea networks.	The proposed ODP layout includes provision for pedestrians, and the low traffic volumes within and adjacent to the application site are such that cyclists can safely share the road with vehicular traffic.
Objective 20.2.4	Maintain and enhance a safe, efficient and effective transportation network.	The proposed crescent road is designed in accordance with the Council's engineering standards. The intersections of the new crescent road with Formby Street provide excellent visibility and will carry very modest volumes. Similarly, visibility at the Formby/Holyhead intersection is excellent and the modest volumes of additional site generated traffic will have a negligible effect on the continued safe and efficient operation of the surrounding road network.
Policy 20.3.4	Ensure traffic generating activities do not adversely affect the safe, efficient and effective operation of the roading network.	The proposed crescent road is designed in accordance with the Council's engineering standards. The intersections of the new crescent road with Formby Street provide excellent visibility and will carry very modest volumes. Similarly, visibility at the Formby/Holyhead intersection is excellent and the modest volumes of additional site generated traffic will have a negligible effect on the continued safe and efficient operation of the surrounding road network.
Policy 20.3.5	Ensure safe standards for vehicle access.	The proposed ODP layout will allow each allotment to be provided with safe vehicle accesses in accordance with the District Plan design standards.
Policy 20.3.8	Provide for the safe interaction of pedestrians and vehicles.	The proposed ODP layout includes provision for pedestrians, and the low traffic volumes within and adjacent to the application site are such that cyclists can safely share the road with vehicular traffic.

Table 2: District Plan Transportation Objectives and Policies

Overall, it is considered that the proposal is consistent will all relevant transportation objectives and policies of the District Plan.

7.0 SUMMARY & CONCLUSION

The proposed rezoning of the application site from Rural to Residential 5 will allow for the development of 36 residential allotments, potentially resulting in the construction of 35 new residential dwellings in addition to the existing dwelling on the site.

Even adopting a conservatively high generation rate of 10 vehicle trips per day, the development of 35 additional residential dwellings will generate a relatively modest 350 vehicle trips per day. Most of the site generated traffic is expected to travel to and from local and regional destinations to the north and east of the site, resulting in an additional 31 vehicles per hour through the intersection of Formby Street and Holyhead Street SH 87.

These modest levels of additional traffic on the surrounding road network will have a negligible effect on the continued safe and efficient operation of the surrounding road network, including existing and proposed intersections.

The site is located within easy walking distance to local attractions. The proposed footpath within the site will connect to existing pedestrian facilities to provide safe and convenient walking routes to these destinations thereby encouraging active transport modes.

Overall it is considered that the site is well located in relation to the existing road network, and any traffic related effects associated with additional site generated traffic on the surrounding road network will be negligible.

ANNEXURE 9: CONSULTATION WITH TE RUNANGA O OTAKOU

KTKO LTD
consultancy

30 June 2010

Lindsay Blakie
Senior Estimator
E2 Solutions
PO Box 31159
Ilam
CHRISTCHURCH 8444

Tēnā koe Lindsay

Preliminary Statement – Proposed Subdivision: 39A Formby Street, Outram

Thank you for the opportunity to provide a preliminary cultural statement for a proposed subdivision at 39A Formby Street, Outram.

We have prepared this statement on behalf of Te Rūnanga o Ōtākou whose takiwa includes the application site.

1.0 Introduction

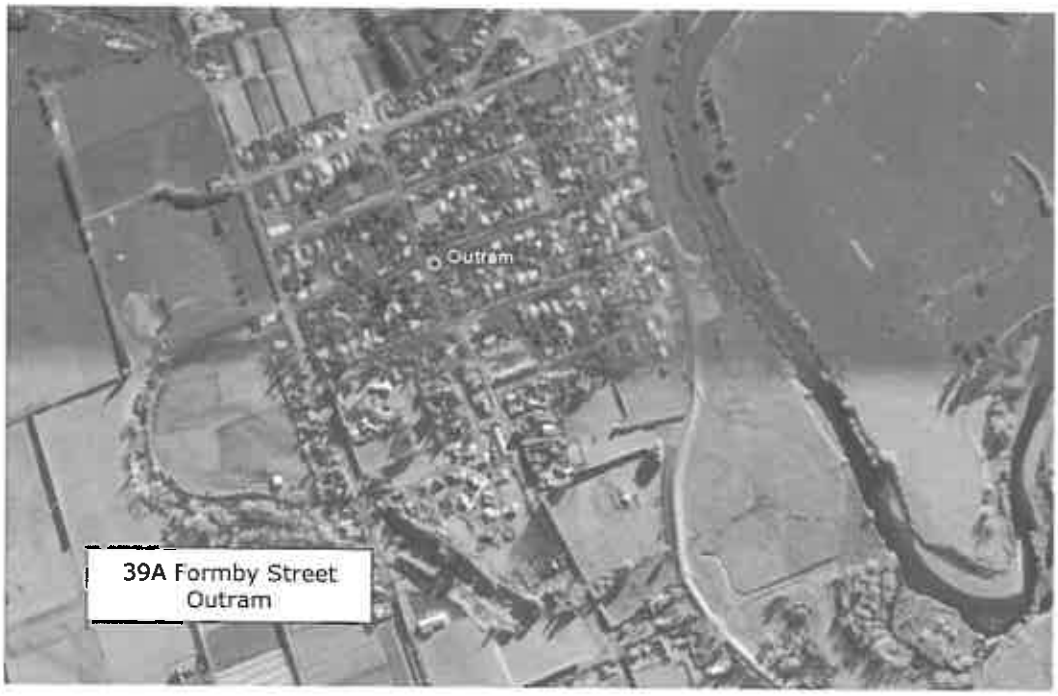
We have reviewed the following information supplied to date:

- Background information provided by E2 Solutions;
- Lower Taieri Groundwater Study;[1]
- Stormwater Design Layout Plan[2]; and
- Wastewater Design Layout Plan.[3]

1.1 Description of the Proposal

The proposed subdivision is on the south-western boundary of the Outram Township, West Taieri. The Taieri River is approximately 800m to the north east of the site.

[1] IRRICON Consultants (1997)
[2] Draft concept plan, 9011-01-100, E2 Solutions (2010)
[3] Draft concept plan, 9011-01-103, E2 Solutions (2010)



This rural site will be subdivided into 36 residential lots. The stormwater runoff from the development will be treated in swales prior to discharging to an existing waterbody to the west of the site. The waterbody is a low-lying area containing willow trees and wetland vegetation.

There is no reticulated sewer network in Outram. Therefore, the installation of a communal onsite wastewater treatment system is proposed for this development. The wastewater system will process the wastewater, then discharge the treated effluent to ground via a sand filter. The wastewater system will be operated by a body corporate on behalf of the residents.

2.0 Cultural Association with the Taieri

2.1 Introduction

The Taieri Catchments[4] are of great significance to Kāi Tahu and make up a significant cultural landscape dominated physically by a series of block mountain ranges and valleys running parallel to the coast. The mountain ranges are recalled in traditional accounts related to the Araiteuru waka.

[4] Upper Taieri, Strath Taieri and the Lower Taieri Plain

The variety of topography and ground cover in the Taieri Catchments supported a diverse range of flora and fauna. Tussock predominated in the Upper and Strath Taieri areas. Silver Beech was predominant in the upper Waipori gorge, with Podocarp forest prevailing in the lower Waipori River Valley. In contrast, most of the Taieri lowlands were either marshy with rushes, raupō, and harakeke (flax), or waterways.

Kāi Tahu used all areas of the Taieri Catchments as evidenced by the hundreds of mahika kai sites associated with the many waterways, lakes and wetlands in the Upper Taieri, the Strath Taieri and the Lower Taieri Plains. The mahika kai resources in turn supported permanent and temporary settlements. Due to the long history of use there are numerous urupa and wāhi tapu associated with the streams, rivers and wetlands. In addition, Māori archaeological sites within the catchments include pā, nohoaka (temporary camp sites), umu, rock-shelters, and find spots.[5]

2.2 Maukaatua

Maukaatua (Maungatua) to the northwest of Outram is a dominant feature that is visible from many vantage points on the Taieri Plain. Travellers by sea, along the Lower Taieri, travelling inland either side of Maukaatua or returning to the coast from inland, could not escape the gaze of Maukaatua. The mauka (mountain) is imbued with spiritual qualities that were respected by the tūpuna (ancestors). The mauka was likened to a sleeping giant and was said to be the source of strange noises in particular winds or climatic conditions.[6] Kaika (villages) were located close to the base of the mauka.

2.3 The Lower Taieri Plains

The Taieri Plain was a wetland complex. The Plain was described in 1844 by Dr David Munro as "... stretching away to the southward for at least twenty miles [and] bounded on all sides by naked hills of rounded outline. .... Its general colour was a brownish yellow, broken only by the black hue of one or two patches of wood, and by the glitter of the water, which seemed in some places to form lagoons."[7]

[5] Kāi Tahu ki Otago Natural Resource Management Plan 1995, Ch. 9
[6] Ngāi Tahu Claims Settlement Act 1998, Schedule 84.
[7] Dr David Munro quoted in Angela Wanhalla (2009) In/Visible Sight.

This extensive wetland complex originally included Lakes Waihola, Waipori, Potaka, Tatawai and Marama Te Taha (Lake Ascog).

The wetlands produced an abundance of tuna (eel), inaka (whitebait), patiki (flounder) and other native species of fish. Waterfowl and young ducks were harvested and preserved in seasonal drives. The swamp margins provided a source of harakeke (flax), ti kouka (cabbage tree) and raupo (bulrush) for food and cultural use.[8]

Much of the Taieri Plain was developed into agricultural land after the arrival of European settlers. The first farms were established in the north end of the valley, where land was easy to drain. In 1907 the Taieri Land Drainage Act allowed for further drainage of the Plain for agriculture. The Drainage Board focused on 2000 acres around Lake Waipori. The adjoining lakes Tatawai, Potaka, and Marama Te Taha to the north of Lake Waipori were fully drained and disappeared without consultation or compensation to Kāi Tahu, resulting in a significant loss of mahika kai resources.[9]

Around 70 percent of the original wetland complex has been drained. The 2,000 hectare Sinclair Wetlands (Te Nohoaka o Tukiauau), which joins Lakes Waihola and Waipori, is a remnant of the former Taieri Plains wetlands.

2.4 The Taieri River

The Taieri River enters the Taieri Plain at Outram, crosses the Plain to join the Waipori River to the southwest of Henley, before flowing through a second gorge to the sea at Taieri Mouth.

The subject site is 800m from the Taieri River at Outram. The Kāi Tahu values associated with the Taieri River (between Outram and Henley), as summarized in the Regional Plan Water for Otago[10], are:

Cultural Values, Beliefs and Uses	**Taieri River**
Kaitiakitanga: The exercise of guardianship by Kāi Tahu in accordance with tikanga Māori.	•

[8] Department of Conservation (2003). *Waihola Waipori Wetlands: An Environmental Education Resource Kit for use in the Sinclair Wetlands*
[9] Dunedin City Council (2009) *Dunedin Contextual Thematic History*
[10] Otago Regional Council (2003). Regional Plan Water for Otago, Schedule 1D.

Cultural Values, Beliefs and Uses	Taieri River
Mauri: Life Force	•
Wāhi Tapu: Sacred places; sites, areas and values associated with water bodies that hold spiritual values of importance to Kāi Tahu.	•
Wāhi Taoka: Treasured resources that reinforce and strengthen the special relationship Kāi Tahu have with inland Otago.	•
Mahika Kai: places where food or resources are procured, including eels, whitebait, kanakana (lamprey), kokopu (galaxiid species), koura (fresh water crayfish), fresh water mussels, indigenous waterfowl, watercress and raupo.	•
Kohanga: Important nursery/spawning areas for native fisheries and/or breeding grounds for birds.	•
Trails: Sites and water bodies that formed part of traditional routes, including tauranga waka (landing place for mōkihi).	•
Cultural materials: Water bodies that are sources of traditional weaving materials (such as raupo and paru) and rongoa (medicines).	•

2.5 Ara Tawhito (Trails) [11]

The Taieri and adjoining Tokomariro lowlands ran parallel with the coast, making the route a popular way for foot traffic. This ara tawhito connected the various nohoaka along the way and was a major north-south access.

In addition, several tracks passed through the Lower Taieri area, following the lowlands and heading inland. The main road along the western side of the plains appears to follow a former ara tawhito to a ford in the Taieri River, near the current site of the Outram township. Other tracks fell into disuse during the early 1800s.

Most travel around the Taieri lowlands, however, was by water. The vast network of lakes, rivers, and streams provided the easiest movement around the wetlands and through to the coast via the tidal Taieri River.

[11] Kāi Tahu ki Otago Natural Resource Management Plan 1995, Chapter 9.

3.0 Statutory Framework

3.1 Ngāi Tahu Claims Settlement Act 1998

The Ngāi Tahu Claims Settlement Act included as cultural redress a number of mechanisms to recognise and give practical effect to Ngāi Tahu mana over taonga resources and areas of land. These include Statutory Acknowledgements, Topuni, Nohoanga and place name changes.

The aim of statutory acknowledgments is to improve the effectiveness of Ngāi Tahu participation under the Resource Management Act in decisions affecting taonga species and acknowledged areas. The statutory acknowledgements for the Waihola/Waipori Wetland and for Taonga Species are relevant to the proposed subdivision. These statutory acknowledgments are set out in Appendix 2.

3.2 Kāi Tahu ki Otago Natural Resource Management Plans 1995 and 2005

The Kāi Tahu ki Otago Natural Resource Management Plans 1995 and 2005 are the principal resource management planning documents for Kāi Tahu ki Otago. The kaupapa of the plans is 'Ki Uta ki Tai' (Mountains to the Sea), which reflects the Kāi Tahu ki Otago philosophy of resource management.

These Plans express Kāi Tahu ki Otago values, knowledge and perspectives on natural resource and environmental management issues. The plans are an expression of kaitiakitanga. While the plans are first and foremost planning documents to assist Kāi Tahu ki Otago in carrying out their kaitiaki roles and responsibilities, they are also intended to assist others in understanding tangata whenua values and policy.

The 2005 Natural Resource Management Plan (NRMP) is divided into catchments, with specific provisions for the whole Otago area and each catchment. The proposed site falls within the Taieri catchment.

The 2005 NRMP plan contains objectives and policies for Wai Māori, Wāhi Tapu, Mahika Kai and Biodiversity, and Cultural Landscapes that are relevant to the proposed plan change, respectively:

Wai Māori: Objectives and Policies[12]

- The waters of the Otago Catchment are healthy and support Kāi Tahu ki Otago customs;
- Contaminants being discharged directly or indirectly to water are reduced;
- There is no discharge of human waste directly to water;
- To require land disposal for human effluent and contaminants;
- To encourage the treatment of all stormwater before being discharged.
- To require all discharge systems to be well maintained and regularly serviced;
- To require monitoring of discharges on a regular basis, with an independent analysis of the monitoring results being made available to Kāi Tahu ki Otago;
- To require groundwater monitoring for all discharges to land.

Wāhi Tapu: Objectives and Policies[13]

- To promote the use of Accidental Discovery Protocols for any earth disturbance work within the Taieri Catchment.

Mahika Kai and Biodiversity: Objectives and Policies[14]

- Habitats and the wider needs of mahika kai, taoka species and other species of importance to Kāi Tahu ki Otago are protected;
- Mahika kai resources are healthy and abundant within the Otago Region;
- Indigenous plant and animal communities and the ecological processes that ensure their survival are recognised and protected to restore and improve indigenous biodiversity;
- To restore and enhance biodiversity with particular attention to fruiting trees so as to facilitate and encourage sustainable native bird populations;
- To promote the use of locally sourced genetic plants for landscaping, regeneration and restoration.
- To create a network of linked ecosystems for the retention of and sustainable utilisation by native flora and fauna;
- To protect and enhance existing wetlands and to support the reinstatement of wetlands;
- To encourage the rewatering of wetlands on the Taieri Plains.

[12] 5.3.3, 5.3.4
[13] 5.4.3, 5.4.4, 9.3.3.
[14] 5.5.3, 5.5.4, 9.4.3

Cultural Landscapes: Objectives and Policies[15]

- The cultural landscape that reflects the long association of Kāi Tahu ki Otago resource use within the Otago region is maintained and enhanced;
- The relationship that Kāi Tahu ki Otago have with land is recognised in all resource management activities and decisions;
- The protection of significant cultural landscapes from inappropriate use and development;
- To encourage and promote the importance of traditional place names;
- To promote the use of traditional place names through official name changes.
- To discourage subdivisions and building in culturally significant and highly visible landscapes.
- To encourage a holistic planning approach to subdivisions between the Local Government Agencies that takes into account the following:

- Protection of Kāi Tahu ki Otago cultural values.
- Visual amenity.
- Water requirements.
- Wastewater and storm water treatment and disposal.
- Landscaping.
- Location of building platforms.

4.0 Preliminary Comments

Te Rūnanga o Ōtākou and Kāti Huirapa Rūnanga ki Puketeraki requests that the following matters be addressed through the plan change:

Wai Māori

i. That best practice methods are adopted to minimize the risk of sedimentation and contaminants entering the waterbody on the site during earthworks;

ii. Groundwater monitoring should be undertaken before the communal wastewater treatment system is commissioned to establish background contaminant levels;

iii. The discharge from the communal onsite wastewater treatment system should be regularly monitored. An independent analysis of the monitoring results should be made available to Te Rūnanga o Ōtākou;

[15] 5.6.3, 5.6.4

iv. The communal onsite wastewater treatment system should be upgraded if there is a significant increase in groundwater contamination;

v. A maintenance plan for the communal onsite wastewater treatment system should be developed;

vi. That best practice management of water and stormwater should be an integral part of the structure plan for the development. In particular, the proposed use of swales to treat stormwater is encouraged.

Wāhi Tapu

vii. The plan change should incorporate an accidental discovery protocol for any earth disturbance work. There are no artefact find-spots recorded on the subject site.[16] However, culturally significant spot-finds may be uncovered during earthworks, especially during site preparation and topsoil stripping. An accidental discovery protocol is attached as Appendix 1.

Mahika Kai and Biodiversity

viii. That the plan change promotes the restoration and enhancement of biodiversity with particular attention to fruiting species to facilitate and encourage the breeding of native birds;

ix. That locally sourced genetic plants be used for landscaping, regeneration and restoration;

x. That the waterbody on the site be reinstated as a wetland, using locally sourced genetic plants.

Cultural Landscapes

xi. That the subdivision recognises the long association of tangata whenua with Maukaatua and the Taieri Plain.

Thank you for seeking our feedback at this early stage. We encourage on-going consultation throughout the development of this subdivision. In particular, we request further consultation if there are significant changes to the form of the subdivision.

[16] New Zealand Archaeological Association database

Nahaku noa
na

Chris Rosenbrock
Manager

CC Te Rūnanga o Ōtākou

Appendix 1: Accidental Discovery Protocol

Appendix 1: Accidental Discovery Protocol

1. Introduction

This protocol records those procedures that should be followed in the event that koiwi, taoka, wāhi tapu, or archaeological sites, are unearthed or discovered.

2. Definitions

In this Protocol the following terms are used:

Archaeological Sites – as defined by the Historic Places Act 1993 (as amended).

"Koiwi takata" means human skeletal remains.

"Taoka" means cultural artefacts such as implements, weapons or decorations traditionally and historically utilised by tangata whenua and include parts or the remains thereof.

"Wāhi tapu" means any site of religious, cultural or spiritual significance for takata whenua.

3. Accidental Discovery Protocol

The following procedure shall be adopted in the event that koiwi takata, taoka or wāhi tapu are unearthed or discovered, or are reasonably suspected to have been unearthed or discovered.

a. If koiwi takata (human skeletal remains), taoka or a wāhi tapu site are uncovered during development all activity in the immediate vicinity of the site shall cease.

b. The Project Manager shall be immediately advised of the occurrence.

c. The Project Manager shall take steps immediately to secure the area in a way that ensures that the discovery remains untouched so far as possible in the circumstances.

d. The Project Manager shall, dependent on the nature of the discovery, notify the New Zealand Police and the Public Health Unit (in the event of a koiwi takata discovery); the New Zealand Historic Places Trust; and the Rūnanga.

e. The Project Manager shall ensure that assistance is made available to guide, the Police, New Zealand Historic Places Trust staff, and kaumatua (as applicable) to the site, assisting with any requests that they may make.

f. The Project Manager shall ensure that kaumatua are given the opportunity to undertake karakia and such other religious or cultural ceremonies and activities at the site as may be considered appropriate in accordance with tikanga Māori (Māori custom and protocol).

g. Where the koiwi takata, taoka or wāhi tapu are of Māori origin, any materials discovered shall be handled and removed by the kaumatua who are responsible for the tikanga (custom) appropriate to their removal or preservation.

h. All parties involved shall endeavour to ensure that these matters are dealt with as expeditiously as possible.

Nominated Runanga Representatives

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DUNEDIN 9054

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Practice Note

It is recommended that the Project Manager, plant operators and where practicable contractors who undertake activities as part of this development should have attended a wānanga on the identification of archaeological sites and materials.

Appendix 2: Statutory Acknowledgements

Ngāi Tahu Claims Settlement Act Schedule 70

Statutory Acknowledgement for Waihola/Waipori Wetland

Specific Area

The statutory area to which this statutory acknowledgement applies is the Waihola/Waipori Wetland. The Crown, pursuant to Section 206, acknowledges Te Rūnanga o Ngāi Tahu's statement of Ngāi Tahu's cultural, spiritual, historic, and traditional association to the Waihola/Waipori Wetland.

Ngāi Tahu Association with the Waihola/Waipori Wetland

The Waihola/Waipori wetlands were once one of the most significant food baskets in the Otago region, and featured in the seasonal activity of the coastal settlements as far away as the Otago Peninsula and harbour area, Purakaunui and Puketeraki. The wetlands were once much larger in water area and deeper than at present, connected by a labyrinth of waterways and having a gravel bed which has now been overlaid by silt and mud.

The names Waihola/Waipori are likely of Waitaha derivation, with "hola" being the Waitaha form of "hora" meaning flat, spread out or widespread. Waipori may in fact be a misrecording of Waipouri, which is used in many older manuscripts, being a reference to the dark, tannin stained water the wetland receives from Waipori River, a heavily wooded catchment.

The Waihola/Waipori area was visited and occupied by Waitaha, Ngati Mamoe and Ngāi Tahu in succession, who through conflict and alliance, have merged in the whakapapa (genealogy) of Ngāi Tahu Whanui. The wetland supported a number of pa within its environs and nearby. For example, Whakaraupuka, the pa of the Ngati Mamoe chief Tukiauau was located in the area now known as Sinclair Wetlands, although Tukiauau eventually relocated further to the south as the southward movement of his Ngāi Tahu foes became uncomfortably close.

There were also many nohoanga (temporary campsites) located within the complex, used by food gathering parties which would travel to the lakes and camp on the fringes for two to three days to gather kai; to eel, hunt water fowl and gather flax. There were also permanent or semi permanent settlements located in a number of locations around the lakes, some on islands in the wetlands system.

A number of other settlements further afield were also dependent on the mahinga kai resources of Waihola/Waipori for sustenance, including Tu Paritaniwha Pa near Momona, Omoua Pa above Henley, Maitapapa (Henley area), the kaik south of Henley and Takaaihitau near the old Taieri Ferry bridge, in addition to other settlements adjacent to the Taieri River up and downstream of the wetlands. Ōtākou and Puketeraki hapu would also make seasonal visits to gather resources and strengthen and maintain the kupenga (net) of whakapapa on which their rights to use those resources were based.

There is an account which tells of a sudden flood which required people trapped on the bank at a place called Whakaraupo, on the network of waterways that link Waihola with Waipori, to hastily construct a mokihi out of raupo to reach safety. A meeting place was opened here in 1901 by the locals, the house was named Te Waipounamu.

For Ngāi Tahu, histories such as these reinforce tribal identity and solidarity and continuity between generations, and document the events which shaped the environment of Te Wai Pounamu and Ngāi Tahu as an iwi.

Waihola/Waipori was a key mahinga kai resource for Ngāi Tahu based along the Otago coastal region, where an abundance of tuna (eel), inaka (whitebait), patiki (flounder) and other indigenous fish were available. Waterfowl and fibre resources such as harakeke and raupo were also easily accessible from the wetlands. Spearing, setting hinaki and nets, and bobbing for eel were regular activities on the wetlands in the season. The gathering of young ducks in the moult, and the catching of herons, pukeko and other birds supplemented the broad range of kai available from the wetlands.

The tupuna had considerable knowledge of whakapapa, traditional trails and tauranga waka, places for gathering kai and other taonga, ways in which to use the resources of Waihola/Waipori, the relationship of people with the lake and their dependence on it, and tikanga for the proper and sustainable utilisation of resources. All of these values remain important to Ngāi Tahu today.

The attractiveness of Waihola/Waipori as a mahinga kai was enhanced by their accessibility. With the direct link to the Taieri River, access via the Taieri to villages on the banks of the Taieri River, upstream and down, and access by waka to the coast and northward to Ōtākou, kai and other resources gathered from the wetlands could be transported back to these home bases with relative ease. The tupuna had an intimate knowledge of navigation, river routes, safe harbours and landing places, and the locations of food and other resources on the wetlands.

Knowledge of these trails continues to be held by whanau and hapu and is regarded as a taonga. The traditional mobile lifestyle of the people led to their dependence on the resources of the wetlands.

Because of the long history of use of Waihola/Waipori as a mahinga kai, supporting permanent and temporary settlements, there are numerous urupa, wahi tapu and wahi taonga associated with the wetlands. These are all places holding the memories, traditions, victories and defeats of Ngāi Tahu tupuna, and are frequently protected by secret locations. Urupa are the resting places of Ngāi Tahu tupuna and, as such, are a particular focus for whanau traditions.

The mauri of Waihola/Waipori represents the essence that binds the physical and spiritual elements of all things together, generating and upholding all life. All elements of the natural environment possess a life force, and all forms of life are related. Mauri is a critical element of the spiritual relationship of Ngāi Tahu Whanui with the wetlands.

The wetlands represent, in their resources and characteristics, a strong element of identity for those who had manawhenua (tribal authority over the area) whose tupuna were nurtured on the food and resources of the wetlands for generations.

Ngāi Tahu Claims Settlement Act - Schedule 97

Statutory Acknowledgement for Taonga Species

The Crown acknowledges the cultural, spiritual, historic, and traditional association of Ngāi Tahu with the taonga species

Birds

Name in Māori	Name in English	Scientific Name
Hoiho	Yellow-eyed penguin	*Megadyptes antipodes*
Kāhu	Australasian harrier	*Circus approximans*
Kākā	South Island kākā	*Nestor meridionalis meridionalis*
Kākāpō	Kākāpō	*Strigops habroptilus*
Kākāriki	New Zealand parakeet	*Cyanoramphus spp.*
Kakaruai	South Island robin	*Petroica australis australis*
Kaki	Black stilt	*Himantopus novaezelandiae*
Kāmana	Crested grebe	*Podiceps cristatus*
Kārearea	New Zealand falcon	*Falco novaeseelandiae*
Karoro	Black backed gull	*Larus dominicanus*
Kea	Kea	*Nestor notabilis*
Kōau	Black shag	*Phalacrocorax carbo*
	Pied shag	*Phalacrocorax varius varius*
	Little shag	*Phalacrocorax melanoleucos brevirostris*
Koekoeā	Long-tailed cuckoo	*Eudynamys taitensis*
Kōparapara or Korimako	Bellbird	*Anthornis melanura melanura*
Kororā	Blue penguin	*Eudyptula minor*
Kōtare	Kingfisher	*Halcyon sancta*
Kōtuku	White heron	*Egretta alba*
Kōwhiowhio	Blue duck	*Hymenolaimus malacorhynchos*
Kūaka	Bar-tailed godwit	*Limosa lapponica*
Kūkupa/Kererū	New Zealand wood pigeon	*Hemiphaga novaeseelandiae*

Name in Māori	Name in English	Scientific Name
Kuruwhengu/Kuruwhengi	New Zealand shoveller	*Anas rhynchotis*
Mātā	Fernbird	*Bowdleria punctata punctata and Bowdleria punctata stewartiana and Bowdleria punctata wilsoni and Bowdleria punctata candata*
Matuku moana	Reef heron	*Egretta sacra*
Miromiro	South Island tomtit	*Petroica macrocephala macrocephala*
Miromiro	Snares Island tomtit	*Petroica macrocephala dannefaerdi*
Mohua	Yellowhead	*Mohoua ochrocephala*
Pākura/Pūkeko	Swamp hen/Pūkeko	*Porphyrio porphyrio*
Pārera	Grey duck	*Anas superciliosa*
Pateke	Brown teal	*Anas aucklandica*
Pīhoihoi	New Zealand pipit	*Anthus novaeseelandiae*
Pīpīwharauroa	Shining cuckoo	*Chrysococcyx lucidus*
Pīwakawaka	South Island fantail	*Rhipidura fuliginosa fuliginosa*
Poaka	Pied stilt	*Himantopus himantopus*
Pokotiwha	Snares crested penguin	*Eudyptes robustus*
Pūtakitaki	Paradise shelduck	*Tadorna variegata*
Riroriro	Grey warbler	*Gerygone igata*
Roroa	Great spotted kiwi	*Apteryx haastii*
Rowi	Ōkārito brown kiwi	*Apteryx mantelli*
Ruru koukou	Morepork	*Ninox novaeseelandiae*
Tākāhe	Tākāhe	*Porphyrio mantelli*
Tara	Terns	*Sterna spp.*
Tawaki	Fiordland crested penguin	*Eudyptes pachyrhynchus*
Tete	Grey teal	*Anas gracilis*
Tieke	South Island saddleback	*Philesturnus carunculatus carunculatus*

Name in Māori	Name in English	Scientific Name
Titi	Sooty shearwater/ Muttonbird/Hutton's shearwater	*Puffinus griseus and Puffinus huttoni and Pelecanoides urinatrix*
	Common diving petrel	*and*
	South Georgian diving petrel	*Pelecanoides georgicus and*
	Westland petrel	*Procellaria westlandica*
	Fairy prion	*and*
	Broad billed prion	*Pachyptila turtur and*
	White-faced storm petrel	*Pachyptila vittata and Pelagodroma marina*
	Cook's petrel	*and*
	Mottled petrel	*Pterodroma cookii and Pterodroma inexpectata*
Tititipounamu	South Island rifleman	*Acanthisitta chloris chloris*
Tokoeka	South Island brown kiwi	*Apteriyx australis*
Toroa	Albatrosses and Mollymawks	*Diomedea spp.*
Toutouwai	Stewart Island robin	*Petroica australis rakiura*
Tūī	Tūī	*Prosthemadera novaeseelandiae*
Tutukiwi	Snares Island snipe	*Coenocorypha aucklandica huegeli*
Weka	Western weka	*Gallirallus australis australis*
Weka	Stewart Island weka	*Gallirallus australis scotti*
Weka	Buff weka	*Gallirallus australis hectori*

Plants

Name in Māori	Name in English	Scientific Name
Akatorotoro	White Rata	*Metrosideros perforata*
Aruhe	Fernroot (bracken)	*Pteridium aquilinum var. esculentum*
Harakeke	Flax	*Phormium tenax*
Horoeka	Lancewood	*Pseudopanax crassifolius*
Houhi	Mountain ribbonwood	*Hoheria lyalli and H glabata*
Kahikatea	Kahikatea / White pine	*Dacrycarpus dacrydioides*
Kāmahi	Kāmahi	*Weinmannia racemosa*
Kānuka	Kānuka	*Kunzia ericoides*
Kāpuka	Broadleaf	*Griselinia littoralis*
Karaeopirita	Supplejack	*Ripogonum scandens*
Karaka	New Zealand laurel/Karaka	*Corynocarpus laevigata*
Karamū	Coprosma	*Coprosma robusta, Coprosma lucida, Coprosma foetidissima*
Kātote	Tree fern	*Cyathea smithii*
Kiekie	Kiekie	*Freycinetia baueriana subsp.banksii*
Kōhia	NZ Passionfruit	*Passiflora tetranda*
Korokio	Korokio Wirenetting bush	*Corokia cotoneaster*
Koromiko/Kōkōmuka	Koromiko	*Hebe salicfolia*
Kōtukutuku	Tree fuchsia	*Fuchsia excorticata*
Kōwahi Kōhai	Kōwahi	*Kowhai Sophora microphylla*
Mamaku	Tree fern	*Cyathea medullaris*
Mānia	Sedge	*Carex flagellifera*
Mānuka Kahikātoa	Tea-tree	*Leptospermum scoparium*
Māpou	Red Matipo	*Myrsine australis*
Mataī	Mataī / Black Pine	*Prumnopitys taxifolia*
Miro	Miro/Brown pine	*Podocarpus ferrugineus*
Ngaio	Ngaio	*Myoporum laetum*
Nīkau	New Zealand palm	*Rhopalostylis sapida*
Pānako	(Species of fern)	*Asplenium obtusatum*

Name in Māori	Name in English	Scientific Name
Pānako	(Species of fern)	*Botrychium australe and B. biforme*
Pātōtara	Dwarf mingimingi	*Leucopogon fraseri*
Pīngao	Pīngao	*Desmoschoenus spiralis*
Pōkākā	Pōkākā	*Elaeocarpus hookerianus*
Ponga/Poka	Tree fern	*Cyathea dealbata*
Rātā	Southern rātā	*Metrosideros umbellata*
Raupō	Bulrush	*Typha angustifolia*
Rautāwhiri/Kōhūhū	Black matipo/Māpou	*Pittosporum tenuifolium*
Rimu	Rimu/Red pine	*Dacrydiumcypressinum*
Rimurapa	Bull kelp	*Durvillaea antarctica*
Taramea	Speargrass, spaniard	*Aciphylla spp.*
Tarata	Lemonwood	*Pittosporum eugenioides*
Tawai	Beech	*Nothofagus spp.*
Tētēaweka	Muttonbird scrub	*Olearia angustifolia*
Ti rākau/Ti Kōuka	Cabbage tree	*Cordyline australis*
Tikumu	Mountain daisy	*Celmisia spectabilis and C semicordata*
Titoki	New Zealand ash	*Alectryon excelsus*
Toatoa	Mountain Toatoa, Celery pine	*Phyllocladus alpinus*
Toetoe	Toetoe	*Cortaderia richardii*
Tōtara	Tōtara	*Podocarpus totara*
Tutu	Tutu	*Coriaria spp.*
Whararíki	Mountain flax	*Phormium cookianum*
Whīnau	Hīnau	*Elaeocarpus dentatus*
Wī	Silver tussock	*Poa cita*
Wīwī	Rushes	*Juncus all indigenous Juncus spp. and J. maritimus*

ANNEXURE 10: DISCHARGE CONSENTS FROM OTAGE REGIONAL COUNCIL

COPY FOR YOUR INFORMATION

Otago Regional Council

Our Reference: A321458 Consent No: RM10.361.01

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Two Note Limited

Address: G S Mclauchlan & Co, Level 3, Stafford House, 2 Stafford Street, Dunedin

To discharge treated wastewater to land from a residential subdivision for the purpose of disposing wastewater.

For a term expiring 10 February 2046

Location of consent activity: Outram, approximately 190 metres north west from the intersection of Beaumaris Street and Formby Street.

Legal description of consent location: Pt Sec 1 Blk V West Taieri SD

Map Reference: E1384599 N4917681

Conditions

Specific

1. The discharge shall only be treated domestic wastewater from a maximum of 36 lots, as described in the consent application submitted to the Consent Authority on 27 September 2010 and additional information received on 19 January 2011.

2. The volume of effluent discharge shall not exceed 25 cubic metres per day and the rate of application shall not exceed 25 millimeters per day in any part of the sand disposal field.

3. (a) No sample collected and analysed for Total Nitrogen in Condition 9(a) shall exceed a concentration of 25 milligrams per litre.

   (b) No sample collected and analysed for faecal coliforms in Condition 9(a) shall exceed a concentration of 400 colony forming units per 100 millilitres.

   (c)If a Total Nitrogen or Faecal coliform sample exceeds its corresponding concentration in (a) or (b) above, the consent holder shall notify the Consent Authority within 5 working days of receiving the results.

Performance Monitoring

4. The consent holder shall install a flow meter on the outlet pipe from the treatment system and continually measure and record the daily volume (based on a no more

in a log and this log shall be submitted to the Consent Authority by 10 February each year and be made available on request. At all times, the consent holder shall ensure that the Consent Authority has a copy of the most recent version of the Operations and Management Manual.

9. (a) In January, May and September each year, a wastewater sample shall be collected from the outlet of the Ultra Violet treatment plant and analysed for the following contaminants:
(i) Faecal coliforms; and
(ii) Total nitrogen.

(b) The records collected under Condition 9(a) and shall be submitted to the Consent Authority by the 15th day of the following month.

General

10 No ponding or surface run-off of effluent shall occur as a result of the exercise of this consent.

11 There shall be no odour emission resulting from the treatment and disposal system that is offensive or objectionable to such an extent that it has an adverse effect on the environment beyond the boundary of the property on which the consent is exercised.

12. Only mowing vehicles will be allowed to access any part of the sand disposal field area.

13. This permit does not authorise the discharge of sludge to land or water.

14. If the consent holder:
(a) discovers koiwi tangata (human skeletal remains), waahi taoka (resources of importance), waahi tapu (places or features of special significance) or other Maori artefact material, the consent holder shall without delay:
(i) notify the Consent Authority, Tangata whenua and New Zealand Historic Places Trust and in the case of skeletal remains, the New Zealand Police.
(ii) stop work within the immediate vicinity of the discovery to allow a site inspection by the New Zealand Historic Places Trust and the appropriate runanga and their advisors, who shall determine whether the discovery is likely to be extensive, if a thorough site investigation is required, and whether an Archaeological Authority is required.
Any koiwi tangata discovered shall be handled and removed by tribal elders responsible for the tikanga (custom) appropriate to its removal or preservation. Site work shall recommence following consultation with the Consent Authority, the New Zealand Historic Places Trust, Tangata whenua, and in the case of skeletal remains, the New Zealand Police, provided that any relevant statutory permissions have been obtained.
(b) discovers any feature or archaeological material that predates 1900, or heritage material, or disturbs a previously unidentified archaeological or heritage site, the consent holder shall without delay:
(i) stop work within the immediate vicinity of the discovery or disturbance and
(ii) advise the Consent Authority, the New Zealand Historic Places Trust, and in

Otago Regional Council

Our Reference: A321458

Consent No: RM10.361.03

DISCHARGE PERMIT

Pursuant to Section 104B of the Resource Management Act 1991, the Otago Regional Council grants consent to:

Name: Two Note Limited

Address: G S Mclauchlan & Co, Level 3, Stafford House, 2 Stafford Street, Dunedin

To temporarily discharge silt and sediment to water and to land in a manner that it may enter water while undertaking earthworks

for the purpose of constructing a sub division

For a term expiring 10 February 2021

Location of consent activity: Outram, approximately 170 metres west from the intersection of Beaumaris Street and Formby Street.

Legal description of consent location: Pt sec 1 Blk V West Taieri SD

Map Reference: E1384632 N4917579

Conditions

Specific

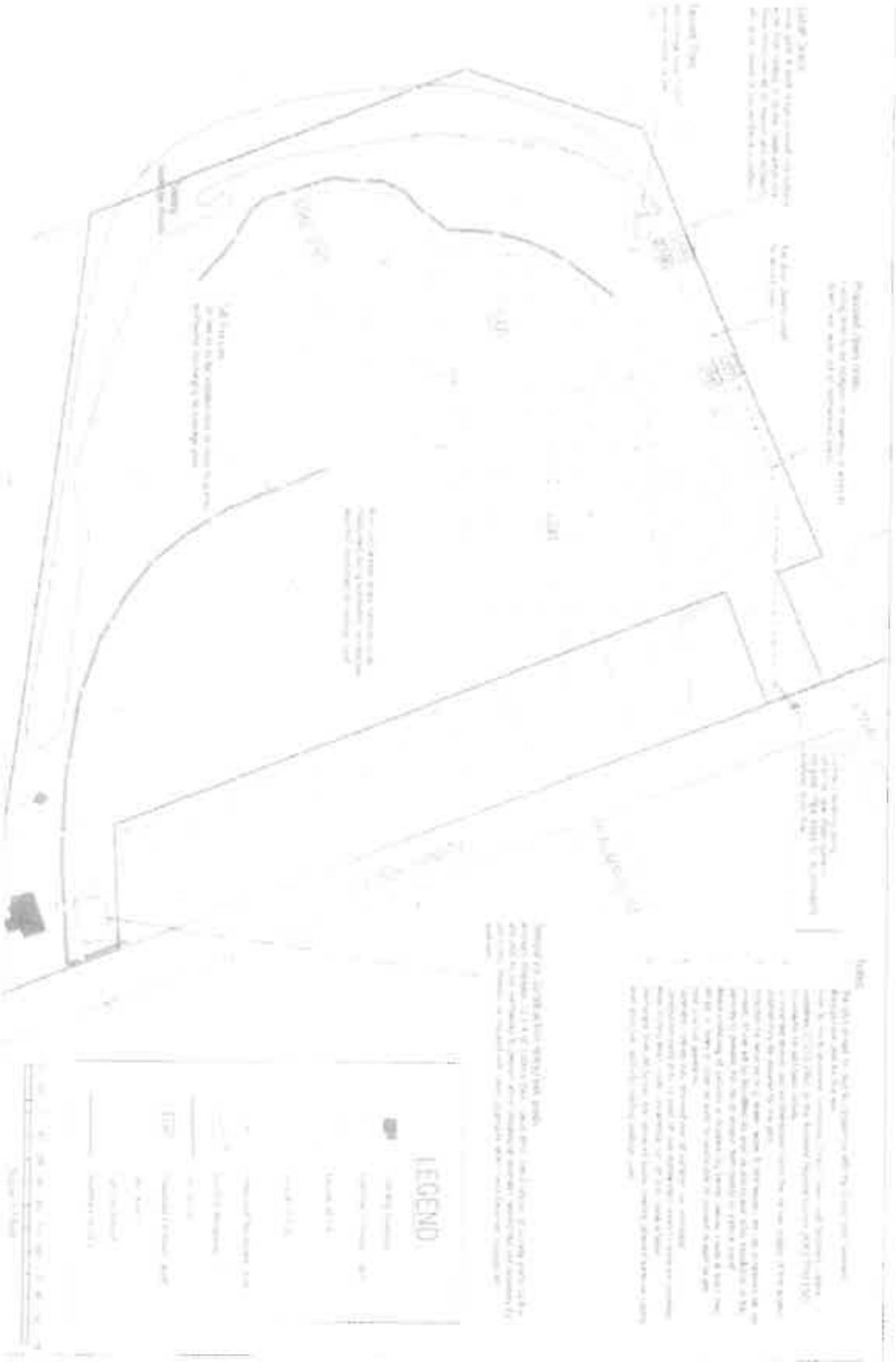
1. The discharge shall only occur for up to four consecutive months each year for the duration of this consent.

2. Sediment control measures, including a sediment retention pond, cut off drains and silt fences, as detailed in the application received by the Consent Authority on 3 December 2010, and outlined in Appendix 1 attached to this consent, shall be implemented prior to construction earthworks commencing.

3. No contaminants other than silt and sediment shall be discharged onto land and into water contained in the wetland area.

4. The consent holder shall take all practicable steps to minimise the release of sediment into water while undertaking construction earthworks.

Appendix 1: Plans of Silt and Sediment Mitigation Measures:



than weekly average) of effluent being discharged to the sand disposal field. The consent holder shall forward the record for the previous calendar year to the Consent Authority by 10 February each year, and upon request.

5. (a) The wastewater shall be treated in an aerated wastewater treatment system, or an alternative wastewater treatment system which provides the same or better quality treatment as described in Condition 3(b).

(b) After exiting the wastewater treatment system, the wastewater shall be treated by a Ultra Violet treatment system and discharged via a land application system as follows:

(i) Via distribution pipes to a 1,000 square metre sand disposal field.
(ii) The wastewater shall be evenly dosed in fixed quantities over the land application system.
(iii) The soil above the sand disposal field shall be grassed or planted with vegetation. The grass or plantings shall be kept in a healthy state. Replanting shall occur when erosion or die-off has resulted in bare or patchy soil cover.

(c) Prior to commissioning the treatment and disposal system of this consent, the consent holder shall supply the Consent Authority with a Producer Statement or a Certificate of Compliance, certifying that the treatment and disposal system has been installed in accordance with Condition 5(a).

6. The treatment and disposal system shall be maintained in an effieient operating condition at all times including at least:
(a) annual inspections of the septic tank and outlet filter; and
(b) regular tank desludging to maintain at least 24 hours retention time of the average daily flow; and
(c) filter cleaning as necessary.

Details of the above maintenance shall be kept in a log and this log shall be submitted to the Consent Authority by 10 February each year and be made available on request.

7. Within three months of the exercising of this consent, the consent holder shall prepare and forward to the Consent Authority an Operations and Management Manual for the treatment and disposal system to ensure its effective and efficient operation at all times. The system shall be operated in accordance with this manual, which shall be updated as appropriate. The manual shall include, as a minimum:
(a) a brief description of the treatment and disposal system, including a site map indicating the location of the treatment and disposal system, points of discharge and any monitoring sites;
(b) key operational matters, including weekly, monthly and annual maintenance checks;
(c) monitoring requirements and procedures;
(d) contingency plans in the event of system malfunctions or breakdowns;
(e) the means of receiving and dealing with any complaints;
(f) emergency contact phone numbers; and
(g) water conservation measures.

8. Records of maintenance, complaints, malfunctions and breakdowns shall be kept

the case of Maori features or materials, the Tangata whenua, and if required, shall make an application for an Archaeological Authority pursuant to the Historic Places Act 1993 and

(iii) arrange for a suitably qualified archaeologist to undertake a survey of the site.

Site work shall recommence following consultation with the Consent Authority

Review

15. The Consent Authority may, in accordance with sections 128 and 129 of the Resource Management Act 1991, serve notice on the consent holder of its intention to review the conditions of this consent within three months of each anniversary of the commencement of this consent, for the purpose of:
(a) determining whether the conditions of this consent are adequate to deal with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage, or which become evident after the date of commencement of the consent; or
(b) ensuring the conditions of this consent are consistent with any National Environmental Standards; or
(c) requiring the consent holder to adopt the best practicable option, in order to remove or reduce any adverse effect on the environment arising as a result of the exercise of this consent. Best practicable option includes, but is not limited to, connecting to a reticulated community sewerage scheme, should such an option become available to the consent holder.

Notes to Consent Holder

1. *If you require a replacement consent/permit upon the expiry date of this permit, any new application should be lodged at least 6 months prior to the expiry date of this permit. Applying at least 6 months before the expiry date may enable you to continue to exercise this permit until a decision is made, and any appeals are resolved, on the replacement application.*

Issued at Dunedin this 25th day of February 2011

Christopher P. Shaw
Manager Consents

Otago Regional Council

Our Reference: A321458

Consent No. RM10.361.03

DISCHARGE PERMIT

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Conditions

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