LANDSCAPE GUIDELINES

Landscape, Natural Character & Amenity Values Guide

WHANGAREI DISTRICT COUNCIL

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Environmental Services Group Publication

Countryside & Coastal Countryside Environments

LANDSCAPE GUIDELINES

START HERE

1 Step One
THE PLANNING CONTEXT
Your Site & Activity Reviewed against the District Plan

- A. Obtain Whangarei Distict Council AEE, LU, RC Guide sheets & Forms → Refer 'Resource Consents' WDC website
- B. Determine the status of your planned activity → Check the Rules, Policies & Objectives Chapters in the District Plan of Relevance to the Activity.
- C. Establish the Landscape Character & Issues → Refer Landscape Types Guide Sheet & relevant requirements of the District Plan → 1
- D. The Whangarei District Council Duty Planner can also assist with this information → Phone 09 430 4200 Whangarei Distict Council to book an appointment

2 Step Two
ANALYSE THE SITE & ISSUES

- A. Landform Patterns
- B. Vegetation Patterns
- C. Catchments, Waterways & Wetlands Estuaries & Harbours
- D. Landuse and Development Patterns
- E. Cultural Features

→ Refer Analysis Guide Sheets → 2

3 Step Three
DESIGN & IMPLEMENTATION
Develop a site landscape proposal for the proposed activity

- A. Intent - Landscape Plans
- B. Addressing Ecological Values
- C. Addressing Earthworks
- D. Addressing Buildings - Structure, Form, Location, External appearance
- E. Site layout considerations
- F. Landscape plan checklist, typical requirements & examples

→ Refer Design Guide Detail Sheets → 3

When a Landscape Plan is required, What is Expected? Landscape plans consist of spatial, graphic and written documents . A Landscape Plan is a stand alone document or series of plan sheets. Design Guide detail sheet addressing particular issues may be added over time. Labelled as a sheet series under the heading letter, eg F series Landscape Plan, D series Buildings in the Landscape

LANDSCAPE GUIDELINES

THE PLANNING CONTEXT

The purpose of the RMA 91

as stated in Part 2 Section 5(1) is

"to promote the sustainable management of natural and physical resources"

And Section 5(2)

"Avoiding, remedying, or mitigating any adverse effects of activities on the environment"

The RMA 91 identifies a number of matters of national importance and other matters, which should be considered in the design and implementation of any proposed land use activities. Landscape and community values are included in Part 2 Sections 6 and 7 of the RMA 91. In particular those matters listed under Section 6, which are relevant to this guide are:

"The preservation of the natural character of the coastal environment (including the coastal marine area), wetlands, and lakes and rivers and their margins, and the protection of them from inappropriate subdivision, use, and development"

"The protection of outstanding natural features and landscape from inappropriate subdivision, use, and development"

"The protection of areas of significant indigenous vegetation and significant habitats of indigenous fauna"

"The maintenance and enhancement of public access to and along the coastal marine area, lakes, and rivers"

As are the following matters discussed in Section 7:

"the efficient use and development of natural and physical resources"
"the maintenance and enhancement of amenity values"
"intrinsic values of ecosystems"

"recognition and protection of the heritage values of sites, buildings, places, or areas"
"maintenance and enhancement of the quality of the environment"

Natural values are encompassed within the landscape values to some extent; the District Plan describes them, along with Physical Resources, as:

"Land, water, air, soil, minerals and energy all forms of plants and animals (whether native to New Zealand or introduced), and all structures."

The Whangarei District has a diverse landscape, some of which displays a varied and unique character, especially around the coast and rural areas. These areas are generally more sensitive to change than urban areas.

Notable and Outstanding Landscapes have been identified in the District Plan, along with strategies for their management. Land development has the potential to result in positive or negative effects on the character of these and the wider district landscapes in the Coastal and Countryside Environments.

Amenity values are described in the District Plan as:

"Those natural or physical qualities and characteristics of an area that contribute to peoples appreciation of its pleasantness, aesthetic coherence and cultural and recreational attributes."

Landscape values are described in the District Plan as:

"Landforms, the coast, rivers and wetlands, and the vegetation that grows on the land's surface, ranging from naturally occurring bush to cultivated pasture, combine to form a variety of landscapes. These are further defined by the way buildings, roads and other structures are set amongst them."

LANDSCAPE GUIDELINES

THE PLANNING CONTEXT

The objectives and policies within the District Plan of relevance are covered under the chapter headings

Amenity Values
Subdivision and Development
The Coast
Riparian and Coastal Margins
Water Bodies
Heritage Buildings, Sites and Objects
Heritage Trees
Open Space
Landscape
Indigenous Vegetation and Habitat

Activity status is defined in the District Plan as:

Permitted: An activity that can be done as of right, without the need to obtain resource consent. For an activity to be Permitted it must comply with all of the Rules e.g. those Rules which control the bulk and location of a building.

Controlled: An activity that requires resource consent and is assessed against matters over which the Council has reserved control in the District Plan, like design, location and landscaping.

Restricted Discretionary: The Council can either grant or decline consent of a case by case basis. If consent is granted then consent conditions can only relate to the matters specified in the District Plan for that activity.

Discretionary: The Council can either grant or decline consent of a case by case basis. If consent is granted then Council can impose consent conditions to control the potential adverse effects of the activity.

Non Complying: An activity for which the Council can only grant consent if the adverse effects are minor or the activity is consistent with the District Plan's Objectives and Policies. If Council grants consent it can impose conditions to control the potential adverse effects of the activity.

Prohibited: Council cannot grant consent for prohibited activities.

The term 'Landscape' encompasses;
•Stewardship of the environment
•Visual amenity
•Biodiversity and pest management

Consequently landscape plans need to address these issues. Various tools are available to do this. These include spatial, graphic and written documents.

To increase processing efficiency, and reduce applicant time and costs, detailed landscape plans provided at the application and/or building consent stages should be bundled with any landscape concept plans, themes and/or assessments provided through land use or subdivision consent processes and should clearly reflect the intent of these documents. In order to ensure the landscape effects of activities requiring land use consents can be addressed it may be appropriate for detailed plans to be provided with consent applications.

- Just like plans for roading, storm water and other services landscape plans are more than a 'paper submission'.
- Landscape Concept plans - At the assessment stage of the application, Landscape plans may use plan view, sections, elevations, overlay or photographs to demonstrate how the proposal complies with the requirements of the District Plan, and address the avoidance, remediation or mitigation of effects arising from the proposal. At this stage the plans are Concept plans which indicate the intents with regards to effects; planting zones, 10 year heights & spreads of plant material, contour, existing and proposed elements; built forms; colours etc.
- It is usual for these plans to consist of a larger overview plan situating the site/s in context; as well as more detailed plans. The overview plan may also be known as a Master Plan.

Typical elements addressed are noted under each of the headings below

Stewardship of the environment

- Earthworks, silt control, erosion control
- Vegetation clearances
- Coastal access, coastal proximity
- Protection of waterways (riparian management), stream access (esplanade reserves)
- Productive land capabilities maintained
- Natural infrastructure, patterns and processes maintained or improved
- Accessways
- Consideration of site within the catchment / sub-catchment, downstream flooding etc
- DOC firebreak buffer zone

Visual amenity

- View sheds
- Landscape character – identify the landforms, vegetation complexes typical of the context.
- Natural patterns and processes
- Colours
- Buildings and structures – architectural design addressing form, colour, bulk, reflective surfaces, shadows & facades, verandas, etc
- Accessways

Biodiversity and pest management

- Earthworks and weed control plans
- Existing vegetation, proposed management of habitat & threatened species ecosystem eg Kiwi areas
- Stock controls
- Pest controls, including goats
- Protection or tradeable development right lots indicated.
- Firebreaks buffers

Other regulations given regard to eg Public safety, Bylaws (SW, waste water etc) which overlap with Landscape treatments.

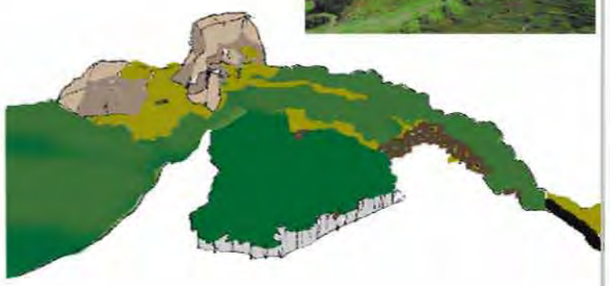
Countryside & Coastal Countryside - Landscape Definitions

LANDSCAPE TYPES - Whangarei District

Elevated Steepland Bushclad Hills

Character elements

Low level of development, sense of remoteness, ridgelines & vegetation in blocks predominant chracter (pastoral / bushclad / forestry) Rural, elevated. Ridgelines silhouettes. Rock outcrops. Open views. Viewed from below, and from long distances, against the sky. Prominant ridgelines, named, provide key sense of place context to the valleys & locality. Public space tends to be bush and ecology reserves. Heritage elements, geological elements.



Upper & Midslopes Ridges & Gulleys

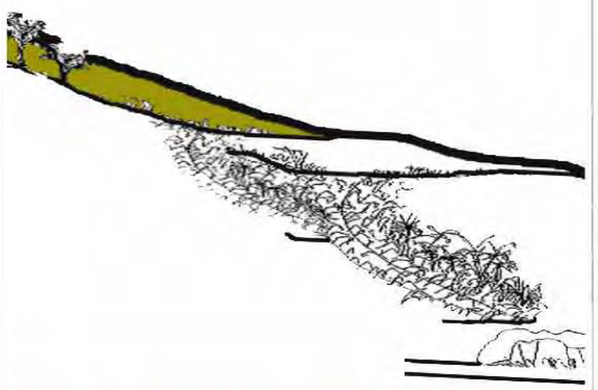
Character elements

Elevated rural / pastoral, strong relief of ridges and gullies, varying steepness. Zonal bush distributed by relief, altitude and moisture. Seeps and streams, upper catchment. Open and enclosed views, viewed from below, and from a distance. Public space tends to bush & ecology reserves, walkways, roads. Low levels of development, typically productive landscapes. Some unique Northland forest types.

Pastoral lowland, valleys, wetlands, waterways

Character elements

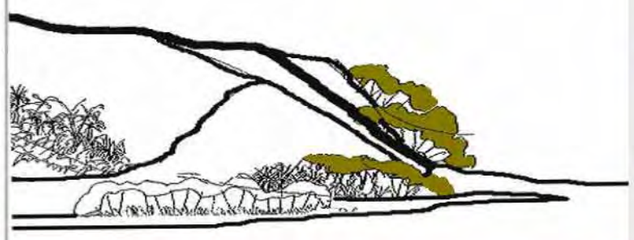
Moderate relief to flat contour. Productive landscapes typically pastoral dominant with cropping, seasonal practices, orchards, nurseries interspersed with lowland bush fragments. Native and riparian vegetation interspersed with exotics. Seeps, streams, wetlands, mid & lower catchment. Stone walls & other heritage elements. Areas of extensive open pasture. Open & enclosed views. High level of public space. Public / private separated and defined.



Coastal, inlets, estuaries & harbours

Character elements

Moderate relief, terraces, cliffs, valleys, scarps, dunes, sandy and rocky shores, wetlands, estuaries, spits, headlands. Sea walls, jetties, boat ramps. Sporadic development. Areas of extensive native vegetation, individual trees, groups, fragments. Mangroves, coastal dune plants. Pohutukawa. Open pasture. Open views and long vistas. Lower catchment. High level of public spaces. Varying levels of private / public space overlap.



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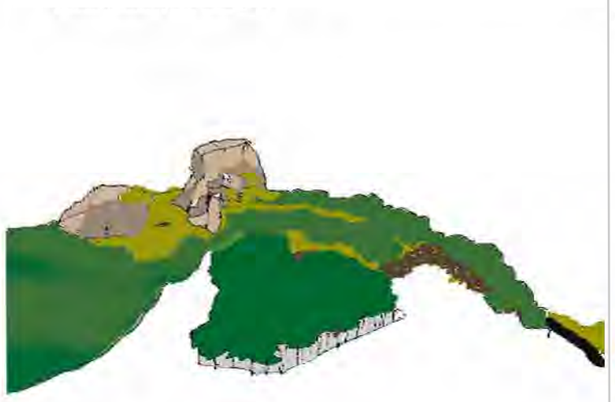
Issues

- Relationship of erosion / slope / earthworks / vegetation clearances
- Cut / fill batters; access alignment
- Landscape area rules
- Environmental benefit rules, covenants
- Forestry
- Kiwi areas
- Buildings and structures, form, ridgelines, placement, colour & design
- Public walkways or linkages



Upper & Midslopes Ridges & Gulleys

Character elements

Elevated rural / pastoral, strong relief of ridges and gullies, varying steepness. Zonal bush distributed by relief, altitude and moisture. Seeps and streams, upper catchment. Open and enclosed views, viewed from below, and from a distance. Public space tends to bush & ecology reserves, walkways, roads. Low levels of development, typically productive landscapes. Some unique Northland forest types.

Issues

- Relationship of erosion / slope / earthworks / vegetation, runoff
- Vegetation clearances, cut/fill batters; access alignment; fire breaks
- Upper catchment runoff, riparian protection
- Landscape area rules; heritage elements
- Environmental benefit rules, covenants
- Forestry
- Kiwi areas
- Significant Natural Areas (SNA or PNA), biodiversity, weeds and pest animals
- Natural hazards, Mine stability, Aquifers
- Buildings and structures, form, ridgelines, placement, colour & design
- Public walkways or linkages
- Density - existing buildings, cumulative effects, high value soils

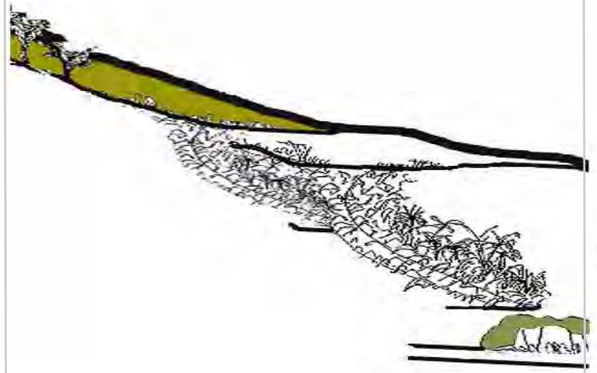
Pastoral lowland, valleys, wetlands, waterways

Character elements

Moderate relief to flat contour. Productive landscapes typically pastoral dominant with cropping, seasonal practices, orchards, nurseries interspersed with lowland bush fragments. Native and riparian vegetation interspersed with exotics. Seeps, streams, wetlands, mid & lower catchment. Stone walls & other heritage elements. Areas of extensive open pasture. Open & enclosed views high level of public space.
Public / private separated and defined.

Issues

- Landform, contour, slope, vegetation patterns, soil types, high value soils
- Vegetation clearances, cut/fill batters; access alignment; fire breaks
- Waterways and wetlands
- Built form - lighting, outdoor storage, aerials, minor structures, existing structures, access alignment
- Buildings placement - in relation to ridges & skylines, roads, vegetation, views, prominant slopes, coverage, setbacks, height
- Building design - colour, form, rooflines
- Density - existing buildings, and cumulative effects
- Reverse sensitivity, signs
- Biodiveristy, invasive weeds, animal pests
- Heritage elements, stone walls,
- Environmental benefit rules, covenants
- Open space and public walkways, unformed legal roads
- Kiwi areas, Significant Natural Areas (SNA or PNA)



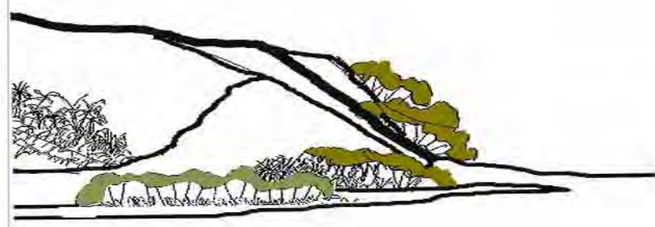
Coastal, inlets, estuaries & harbours

Character elements

Moderate relief, terraces, cliffs, valleys, scarps, dunes, sandy and rocky shores, wetlands, estuaries, spits, headlands. Sea walls, jetties, boat ramps. Sporadic development. Areas of extensive native vegetation, individual trees, groups, fragments. Mangroves, coastal dune plants. Pohutukawa. Open pasture. Open views and long vistas. Lower catchment. High level of public spaces. Varying levels of private / public space overlap.

Issues

- Landform, contour, slope, vegetation patterns, soil types, erosion, high value soils Storm water, integrated site design, integrated catchment management & Costal Marine Area (CMA)
- dunes, waterways and wetlands, lower catchment coastal edges and vegetation
- Vegetation clearances, cut/fill batters; access alignment; fire breaks
- Built form - lighting, outdoor storage, aerials, minor structures, existing structures, access alignment
- Buildings placement - in relation to ridges & skylines, roads, vegetation, views, prominant slopes, coverage, setbacks, height, signs
- Building design - colour, form, rooflines
- Landscaping
- Density - existing buildings, patterns, boundary treatments, cumulative effects
- Earthworks, vegetation clearances, riparian areas
- Biodiveristy, invasive weeds, animal pests
- Heritage elements, stone walls, Heritage trees
- Environmental benefit rules, covenants
- Open space and public walkways, unformed legal roads, coastal access waterways access, walking linkages like Te Araroa
- Kiwi areas, Significant Natural Areas (SNA or PNA)
- Natural hazards, flood zones, building floor levels
- Structures - signs, sea walls, jetties, boat ramps, moorings



START HERE

2

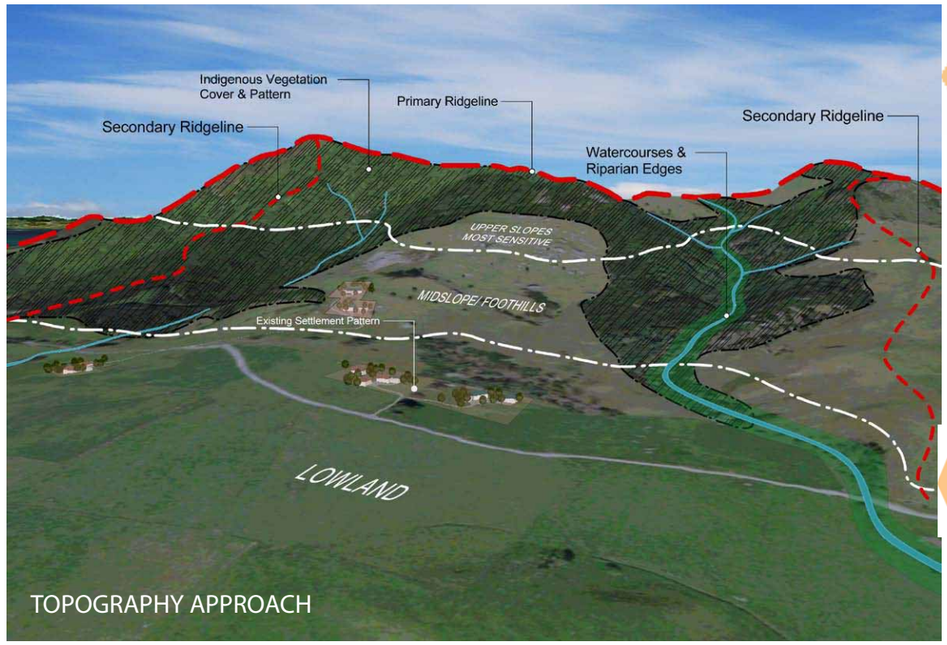
Step Two
ANALYSE THE SITE & ISSUES

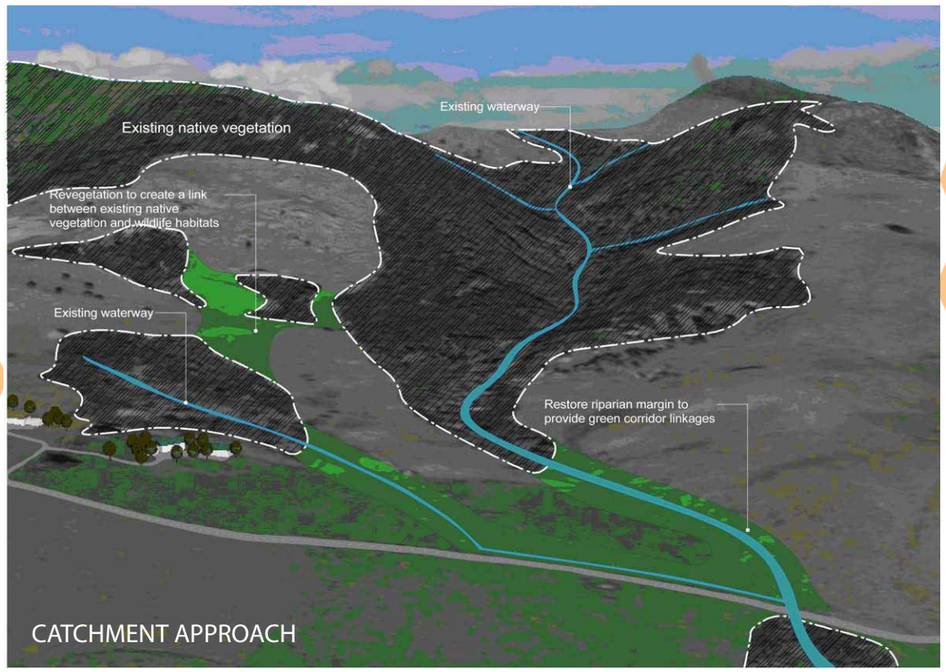
Consider the following aspects of your site, along with the way that it fits into the surrounding Landscape. Refer to the larger plans in Section 2 for further details

The Objectives and Policies in the District Plan seek to maintain and protect those characteristics and values of the landscape that influence and enhance people's appreciation and experience of the Whangarei District and its environment.
Designing with the natural infrastructure not only produces better environmental outcomes, but also can result in lower infrastructural costs, and ongoing care costs. This requires a focus on the landscape and natural systems both within the site, and the wider context.

Landuse and Development, Patterns & Connections D

Are there any existing buildings or structures on your site? For example underground bores, jetties, water tanks, windmills, barns, sheds, dwellings? Existing access tracks or commonly used, formal or informal ROW? Previous building platforms? Retaining walls? Rock walls?
What are the patterns in the immediate vicinity? For example building set-backs distance from the road corridor? Placement of buildings in relation to wet ground, slopes, sun, views and shelter? Consider power lines and transmission routes. Access and road patterns. Are there open or enclosed views? Road-side drains? Road reserve planting? Clustered or expansive pattern of built form? Intense nodes or widely distributed?





Cultural Features E

Are there protected sites or features that are identified in the District Plan, or unprotected features such as old stone walls, historic buildings, ancient trees, or sites of significance to Maori (e.g. middens) present?

Landform Patterns A

Landform patterns contribute to the Landscape Character and the individual identity of a location. Is the site flat, or gently or steeply sloping? How steep are the gulleys? Are the soils different between ridge and gulleys? Rocky outcrops? Identify the ridges (primary, secondary) and if possible the elevations. Identify the skylines, spurs, knolls, valleys, gulleys. How does the site fit into the surrounding larger environment?

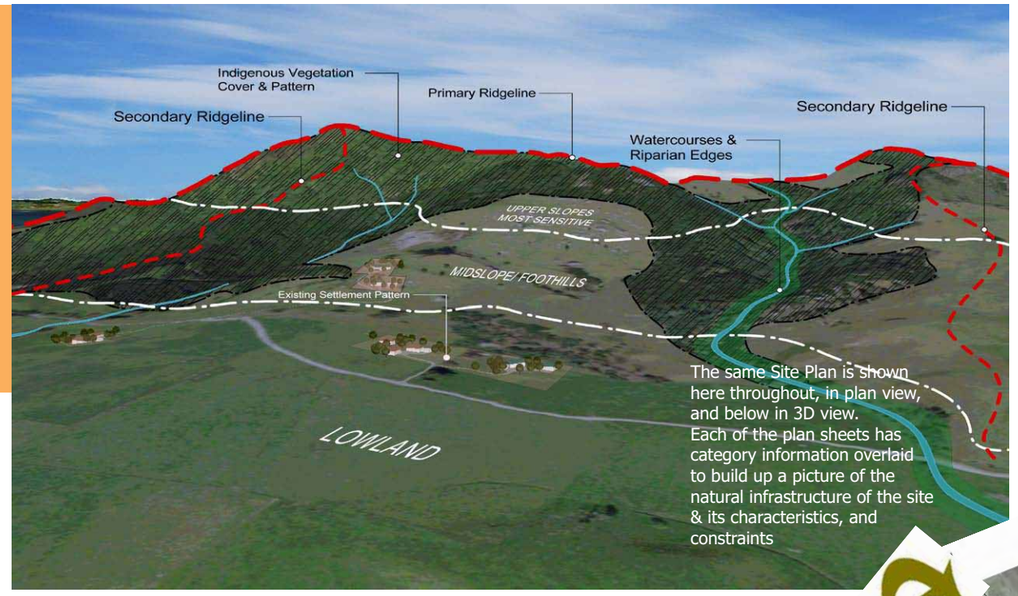
Vegetation Patterns B

Are there areas of existing vegetation? Are they native, exotic, or weeds species? Are there stands of plants which could provide screening to the proposed activity? Are there different types of plants on ridges, slopes and valley or gulley floor? Is there a pattern of wet / dry soil conditions and plant types? Consider how these natural patterns can inform planting of cuttings, disturbed ground, and approaches to screening, providing climate control (shade, wind protection, dust filtering), erosion control, storm water (SW) & soakage field treatment planting. Refer SHEET 3 for further details.

Waterways & Wetlands C

Are there any streams, ponds, dams, swamp wetlands, or ephemeral waterways? Where does the water naturally drain to? Often the low pathway route (called the overland flow path) is clearly visible in pasture during dry weather, as a darker green line flowing across the slopes to low points where the water collects. Is the site in the upper or lower catchment? Are there any flood hazards?
Is there any opportunity to provide firewater dams?
What is the stream health like? Where is the site in relation to the coastal margin? In relation to slip or stability hazards? In relation to coastal access? Are there any management zones in place? Are there stock proof fences?
For further information
Refer also NZ Fire Service pamphlet on Rural Area Fire Protection and defensible space recommendations for space around buildings
Refer also Northland Regional Council Clean Streams Guide to Stream Care.

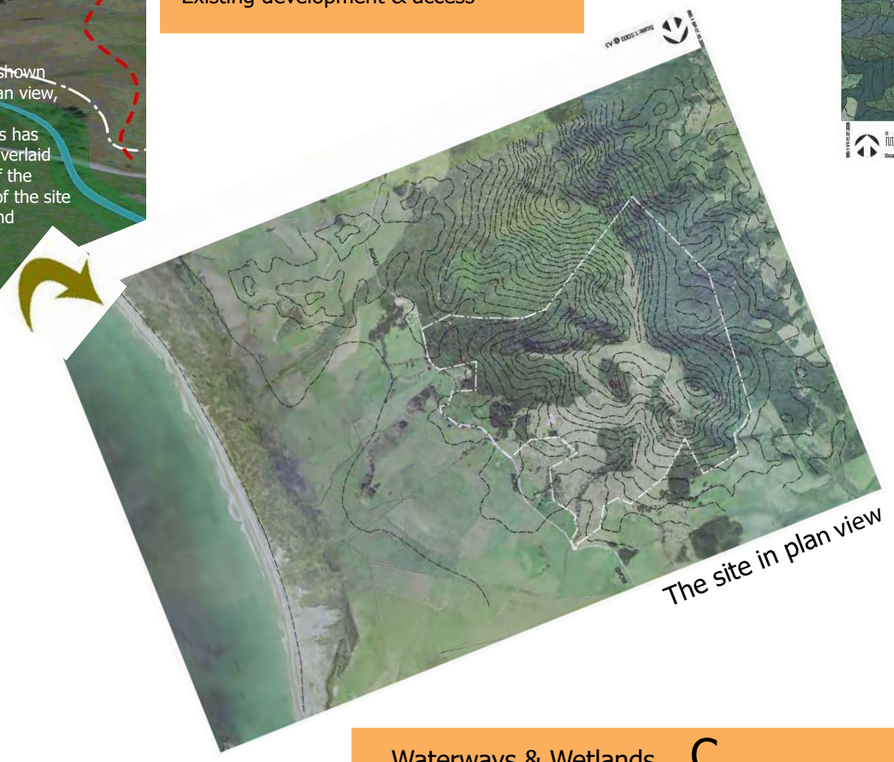
The Site



The site can be represented as a plan. This makes it easy to add, or overlay other site information over it. Above is the same site as you would view it, or record it in a photograph, and below is the plan view. Its possible to understand & record different elevation, orientation and slope steepness in these two formats - 3D or photo overlay; and plan. Both are useful tools for conveying the information about your proposed activity or development to the Council.

Features and elements

Topography, including the significant features such as headlands, steep erosion prone slopes, ridges and gulleys
Soils
Hydrological systems (wetlands, springs, streams and rivers),
Vegetation – both indigenous and exotic
Ecological features
Archaeological and cultural sites
Existing development & access

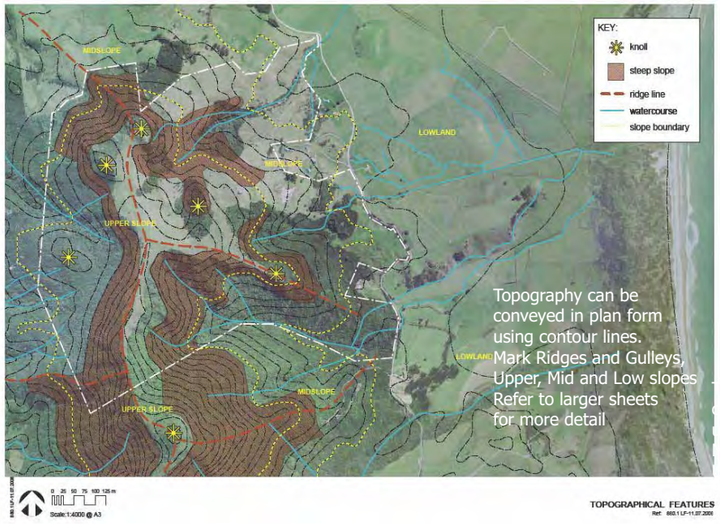


Vegetation Patterns B

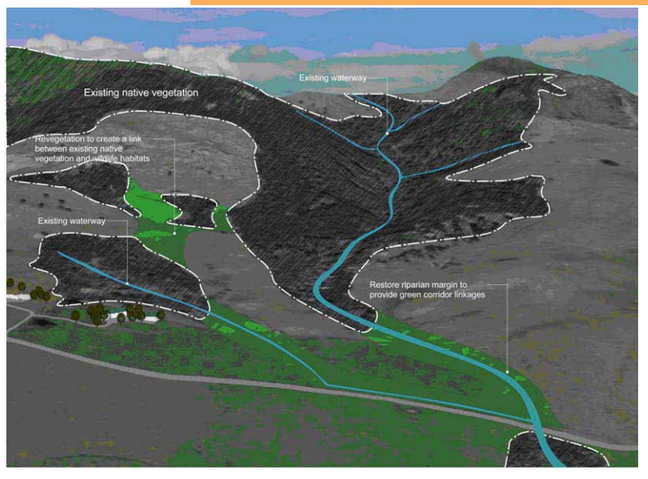
Refer to D over (Enlarged plans)

For details of the plans shown here in thumbnail version, please refer to the individual topic sheets in chapter 2, this chapter

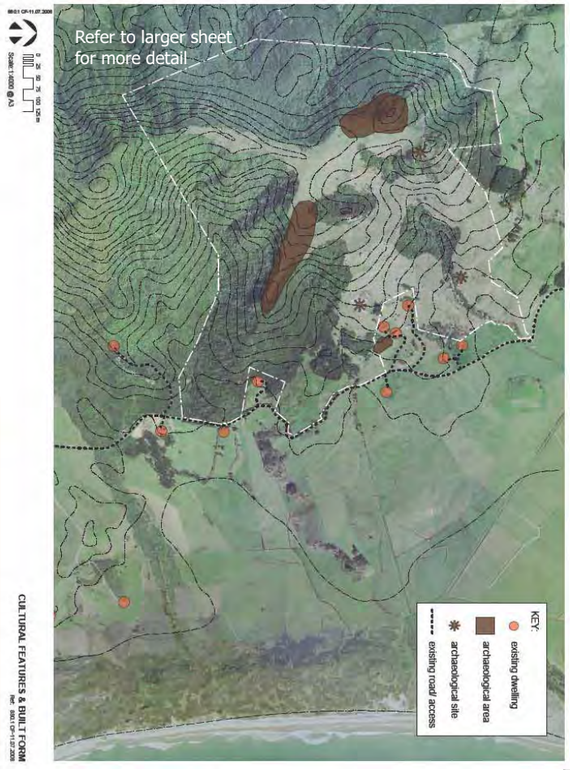
Landform Patterns A



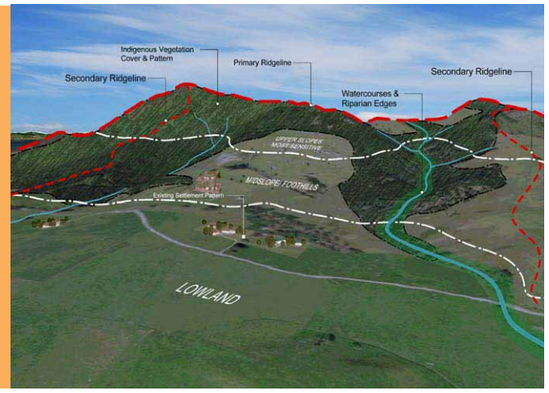
Waterways & Wetlands C

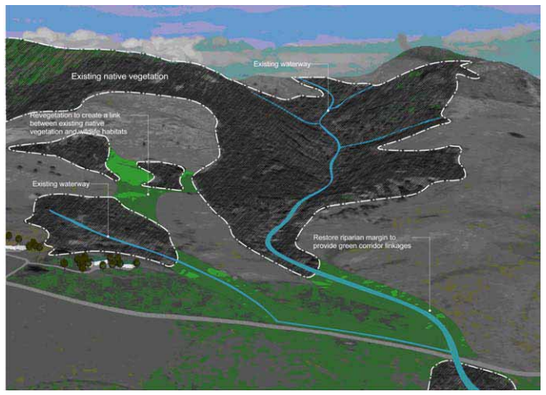


Cultural Features E



The Site





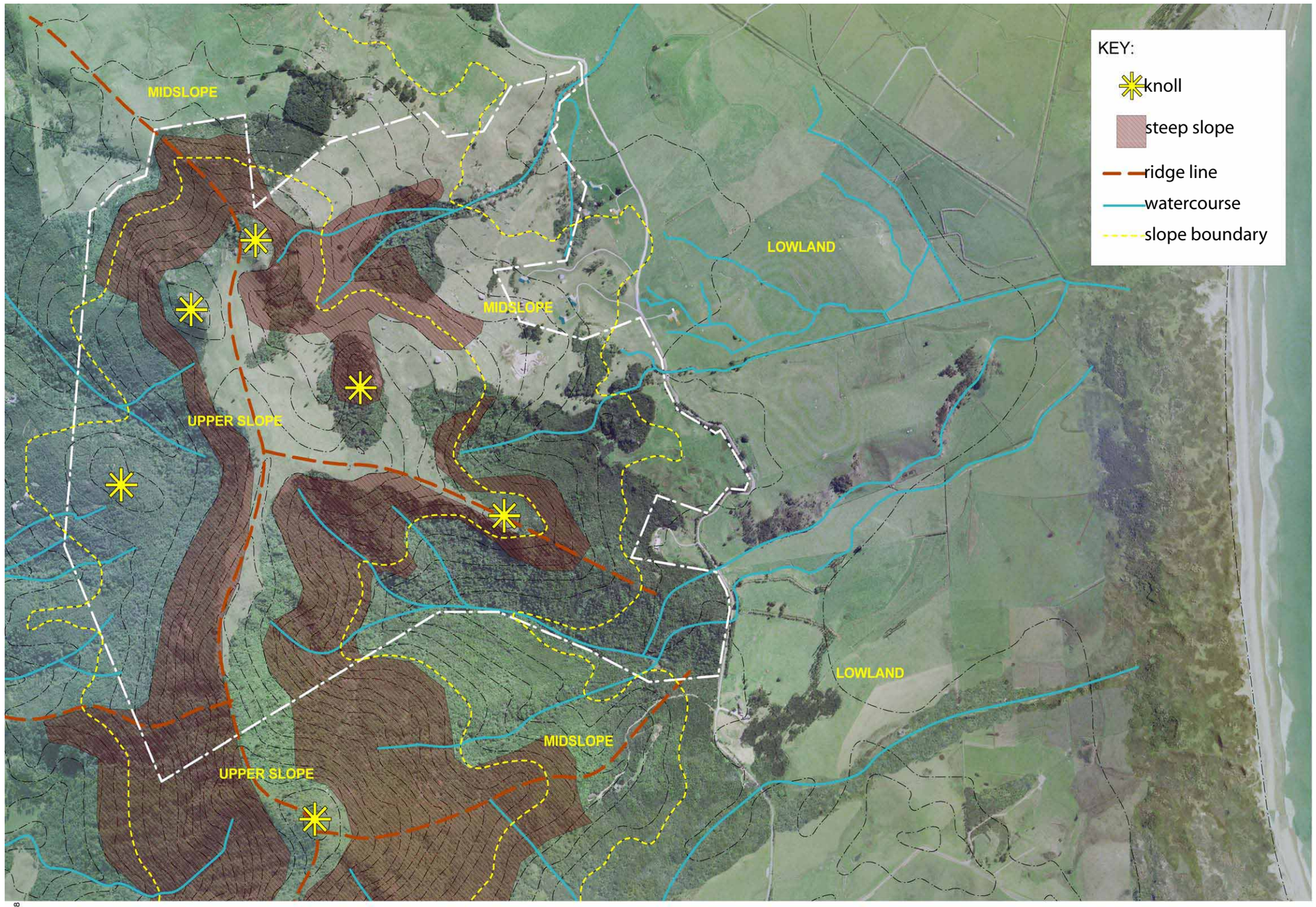
Topography, or landform can be represented in plan view, by contour lines. The site in the 3D views at left, is shown in plan view below. Note the high points (knolls), upper, mid and lower slopes are indicated to aid in reading the plan. Elevation, orientation and the gentleness or steepness of the slope can be understood from the contour lines. Often there is a relationship between the slope, orientation, and elevation and the pattern of soil types, soil moisture and plant species. Overlaying these packages of separate information on one plan can assist in indicating sensitive, managament and development areas, as an aid to decision making .

Landform Patterns A

Elevation, slope and orientation information, married with soil and stability information can assist in decisions regarding the extent of cuts and fills in a development. The extent of these has monetary and environmental cost implications.

Fewer cuts and fills reduce the level of earthworks, and reduce the visual impact of batters, typically arising from accessway and building platform creation. For further information on Earthworks and Vegetation Clearances, refer to the rules section of the District Plan. Refer also to the Northland Regional Council's Soil & Water Plan.

The plan indicates the scale it is drawn at, so that measurements can be calculated. A graphic scale also assists in reading the plan if it becomes enlarged or reduced. The North arrow orients the site, and aids in reading the slope orientation.



880.1 LF-11.07.2008

0 25 50 75 100 125 m

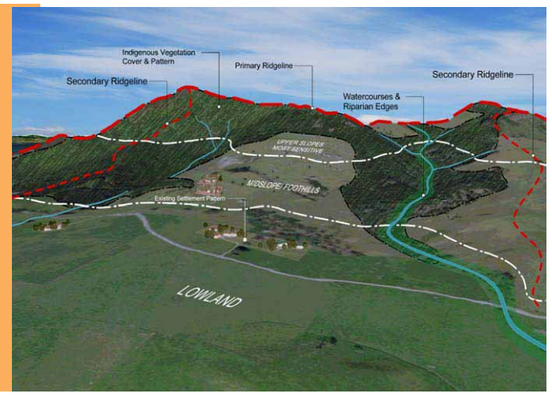
Scale:1:4000 @ A3

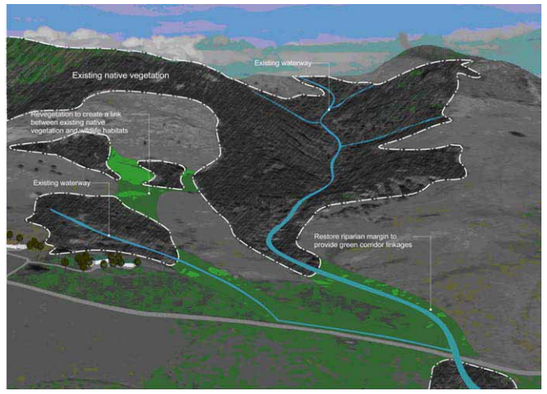
TOPOGRAPHICAL FEATURES
Ref: 880.1 LF-11.07.2008

ANALYSE THE SITE - Enlarged Plans A Landform Patterns

2

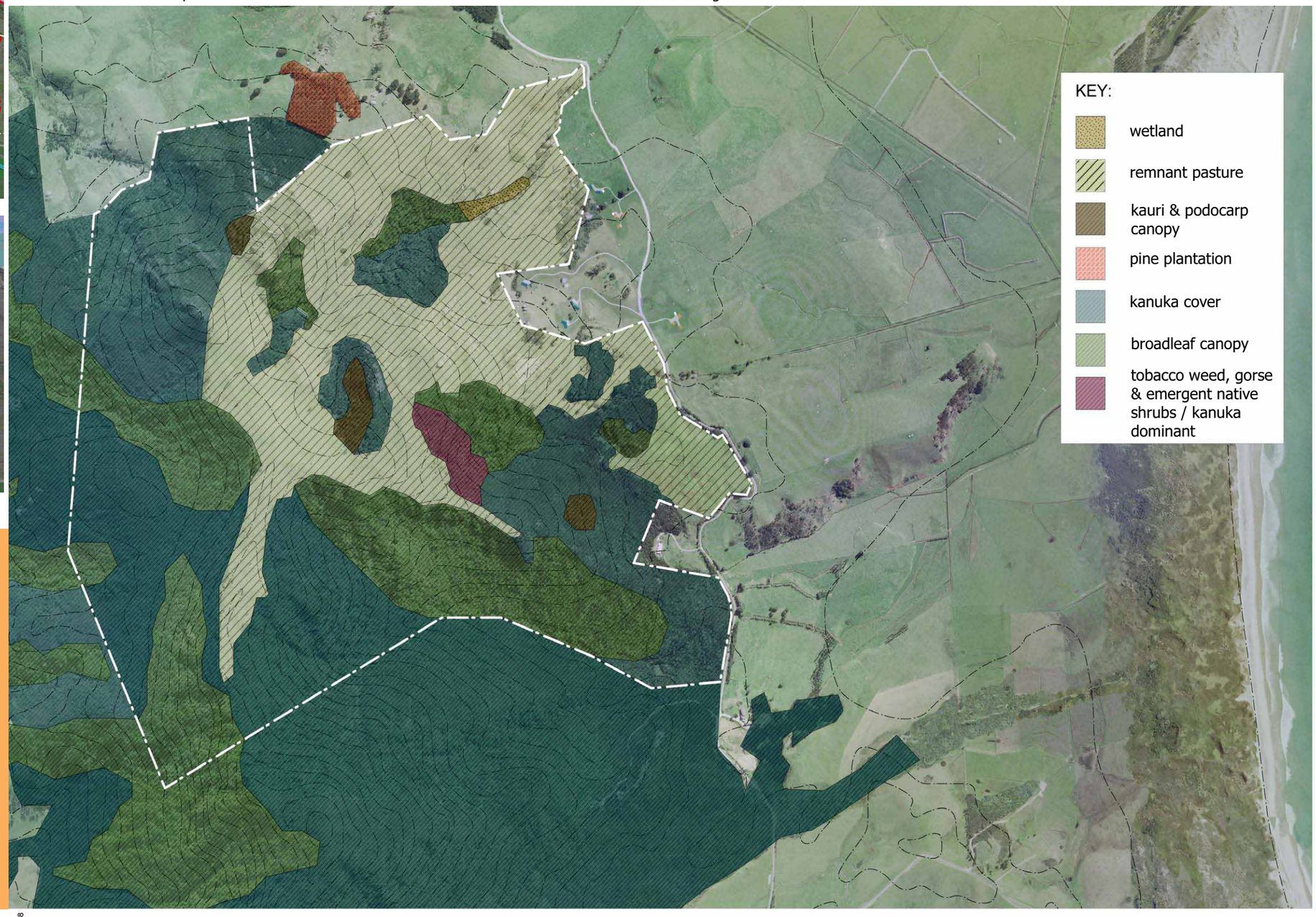
The Site





When on site, note how the vegetation frames, and/or encloses views; how it establishes a foreground to the view; how it can screen areas viewed from the site when looking outwards, and when the site is viewed from outside how vegetation can screen potential activities or developments.

Identifying key site vegetation enables better decision making regarding pest and weed control, and any areas to be used by stock, or fenced to exclude stock. The implications and costs associated with proposed earthworks can be explored with this information, for example in relation to slope and vegetation clearances.



B Vegetation Patterns

The Vegetation patterns have interrelationships with the other natural systems. Identifying the types of vegetation and the occurance patterns can assist in managing various aspects of the site and any development proposals, as a tool in the identification of sensitive areas, and development areas. This identification can aid in management:

- considering the introduction of exotic species, flora and fauna in a way that does not compromise other objectives
- managing and enhancing viable representative ecosystems
- encourage land uses which facilitate good drainage, maintain water quality, reduce erosion, nutrient and silt run-off, and flooding.

Sensitive areas such as stands of remnant and regenerating native forest, riparian areas, wetlands, bogs, swamps, estuarine and coastal margins, steep erosion prone slopes and gulleys can be identified for management of their values. These include contribution to catchment management, scenic and visual amenity, shelter and protection, food sources, habitat health, sense of place and community identity. These values can enhance the value of a completed development.

880.1 VT-11.07.2008

0 25 50 75 100 125 m

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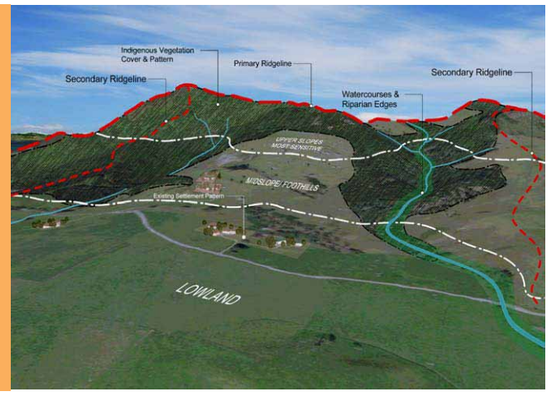
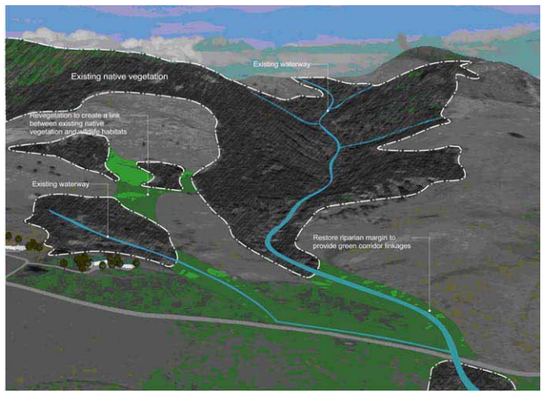
VEGETATION TYPES

Ref: 880.1 vt-1107.2008

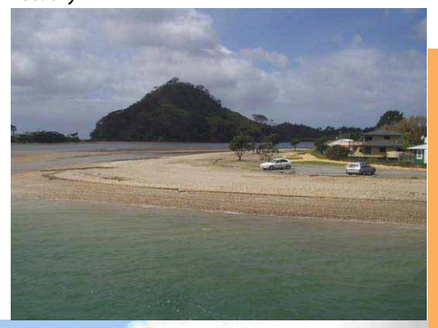
LANDSCAPE GUIDELINES

The Site





Estuary



Harbour

Estuaries & Harbours C

Waterways & Wetlands C

Natural systems run across property boundaries. Development, including subdivision, can be planned around these natural constraints to maximise the productive potential of the land, while minimising the adverse effects.

An effective planning tool for this is the "Integrated Catchment Management" approach.

Catchments are made up of an integrated framework of basic elements. These elements include:

- topography
- water systems
- vegetation communities
- ecological systems and linkages
- communities and settlement patterns
- access patterns
- visual containment

The aim of ICM is to manage these elements, and to recognise and enhance the interrelationships to:

- Encourage land uses which facilitate good drainage;
- Conserve soil;
- Efficiently allocate available water resources and maintain water quality standards so that no particular use is irreversibly lost;
- Preserve and enhance viable representative samples of natural ecosystems;
- Manage the introduction of exotic species, flora and fauna in a way that does not compromise other objectives;
- Manage the harvesting of flora and fauna in recognition of the critical importance of regeneration rates;
- Protect the long term assimilative capacity of natural waste receiving systems;
- Identify areas of land appropriate for a variety of human uses, settlements and growth patterns.

Whilst ICM generally requires landscape design and management on a broad catchment-wide scale, the principles can be applied to smaller scale developments.

Upper catchment wetlands / swamps

Upper catchment streams, stony bottomed, fast flow

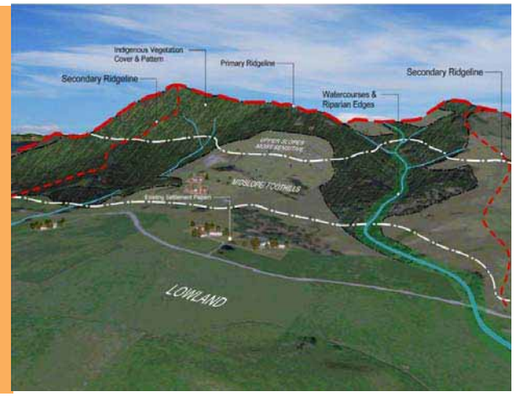
Low / slow flow streams surrounded by pasture or bush, mid-catchment

Eddying bays, low flow, swimming holes, still water

Riparian areas, Esplanade strips, planting to improve stream health

Lower catchment estuarine wetlands

The Site



Information Sources

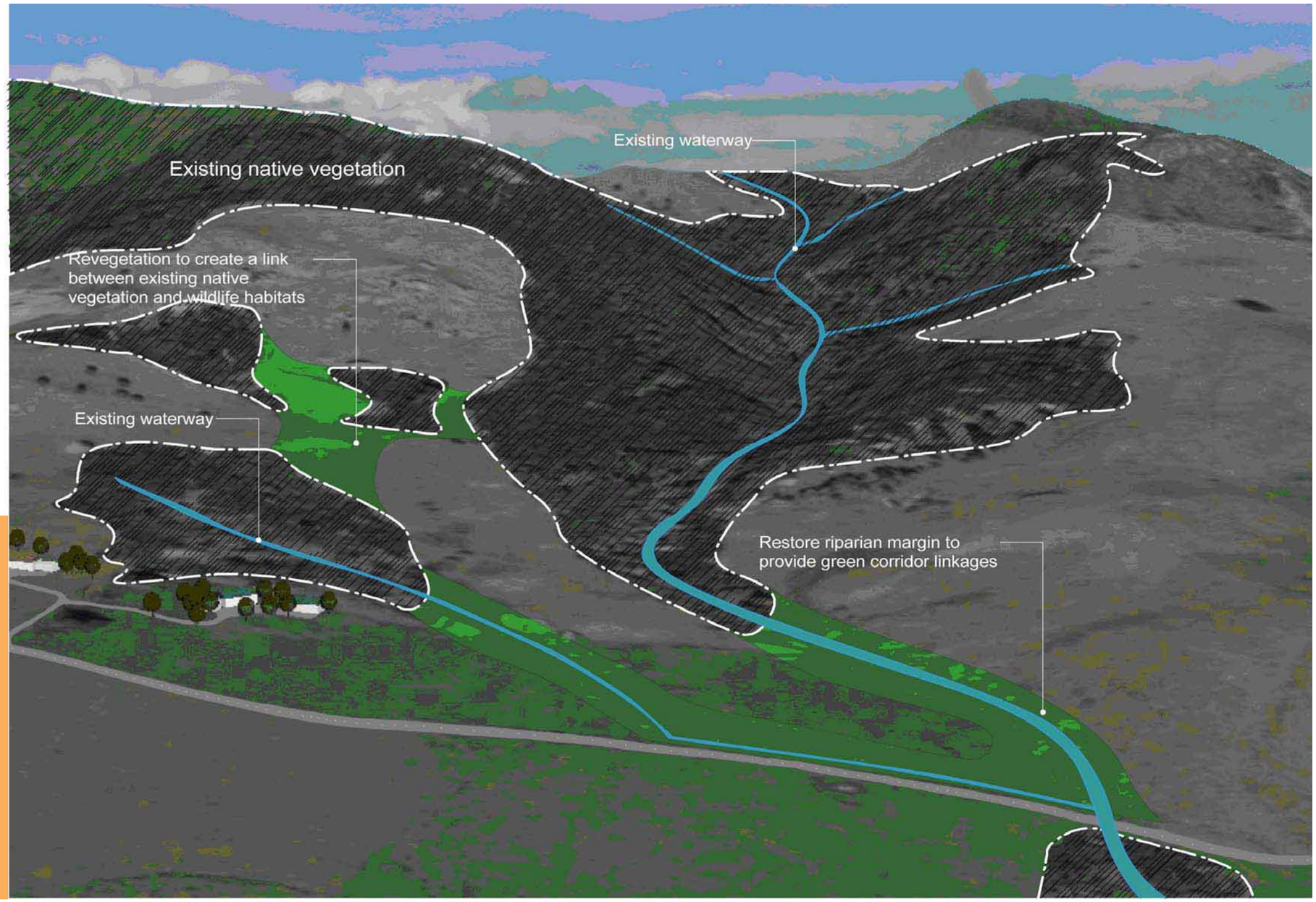
NZNS260 Topomaps,
aerial photographs (from Council website),
Topographic survey,
New Zealand Geopreservation Inventory (NZIGNS),
Site specific survey.
New Zealand Land Resource Inventory
(Landcare Research / Manaaki Whenua),
Land Environments of New Zealand
(MfE, Landcare Research / Manaaki Whenua),
Soil sample analysis, landowner knowledge.
QEII National Trust (if covenanting of feature/s proposed),
PNAP and SNA reporting and records,
DoC Coastal Management Strategy maps,
On-site ecological survey.
Site observation
Local archaeological association records.
DoC Archaeological site records
Archaeologist assessement
Ecologist assessement
Engineer assessement
Landscape Architect assesment

How does the site relate to the wider region? For example, does bush within the site form a link in a more extensive vegetated ecological corridor? Alternatively, does the landform within the site form a backdrop to a larger area?

If the answer is yes, then this may influence how the site may be developed or enhanced. There may be some benefit for example, in recreating a vegetated link between two areas of remnant indigenous vegetation which are currently separated by pasture within your site. This is known as an "Ecological Corridor", and the environmental benefit of these can strengthen the natural systems in the vicinity. Benefits include reduction or increased control of erosion, nutrient run-off, and improvements in flood buffering, ecosystem strengthening, reductions of weed populations, improved visual amenity, climate control, increased native bird populations, improvements in privacy and screening.

Landform Patterns and Connections D

Corridor and link elements such as roads, streams, ridge lines, vegetation patterns (such as hedges, riparian corridors) provide off-site connections into the wider landscape. What happens in the wider landscape impacts on the site, especially in relation to these corridors. Similarly what happens on the site impacts on the wider landscape. Giving regard to strengthening the links with various management strategies can reduce long term maintenance costs of developments Mapping the corridors assists in indicating where the development areas, and sensitive areas may be on a site. Often the sensitive areas may be observed throughout the surrounding area in a landscape of similar character. Connections include visual catchments and view shafts.



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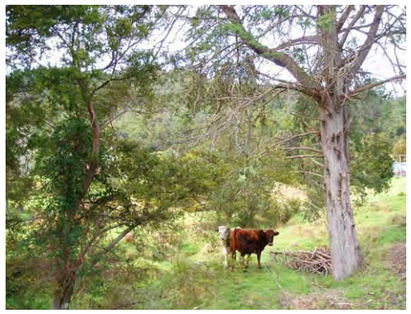
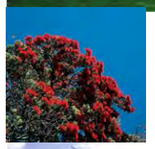


Land use practices

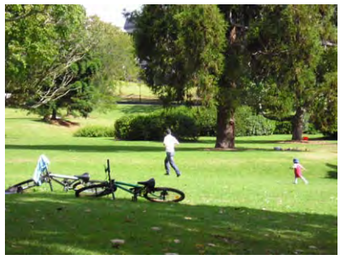
Fences, stone walls



Cultural and historic features

E Cultural Features

Cultural Features include human activities, land use elements, such as fences, drives, archaeological elements, structures, heritage trees, road access, etc.



880.1 CF-11.07.2008

0 25 50 75 100 125 m

Scale:1:4000 @ A3

CULTURAL FEATURES AND BUILT FORM
Ref: 880 CF-11.07.2008

ANALYSE THE SITE - Enlarged Plans - E Cultural Features

2

This is an example of the type of Landscape Plan commonly used for conservation covenants, revegetation areas, mitigation screen planting of the type where the planting areas are extensive and the plant mixes repeated, en masse.

Site Revegetation Plan

Landscape Plan Intent

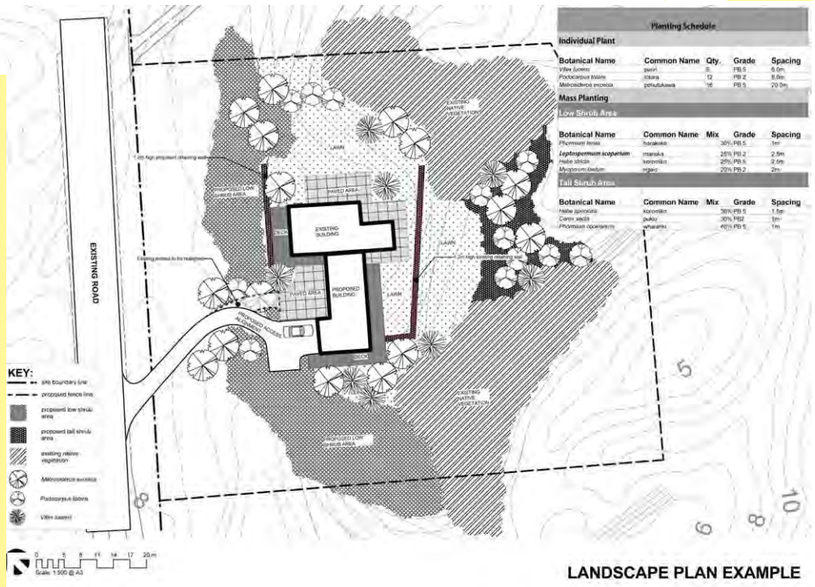
This sheet follows on from The Guide Sheet **1** > **2** > **3**
Steps to Producing Quality Land Use Design and Implementation Outcomes.

When a Landscape Plan is required, What is Expected? What is it?

Landscape plans consist of spatial, graphic and written documents .
A Landscape Plan is a stand alone document, or series of plan sheets. Landscape development plans are a comprehensive representation of a future proposal. They may be large scale encompassing many lots, small scale individual lot plans, or specific focus, such as a construction or planting plan, for instance consist of a revegetation, covenant, or pest and weed management plan. The plan is drawn to scale, should indicate boundaries, and areas beyond, contours, drainage patterns, structures, access, planting, existing and proposed features and management intent.

This is an example of a Landscape Development Plan
It addresses boundaries, building and access positions on the site, building setbacks, soakage areas, north orientation, slopes, retaining wall treatments, existing and proposed trees and plants; tree drip lines, screen planting, species lists, planting density, spacing, grades and other specific details.
This level of detail is required in order to monitor the installed landscape treatments, where it corresponds to consent conditions or consent notices at the s223 and s224c post-approvals phases

Single Lot Landscape Plan

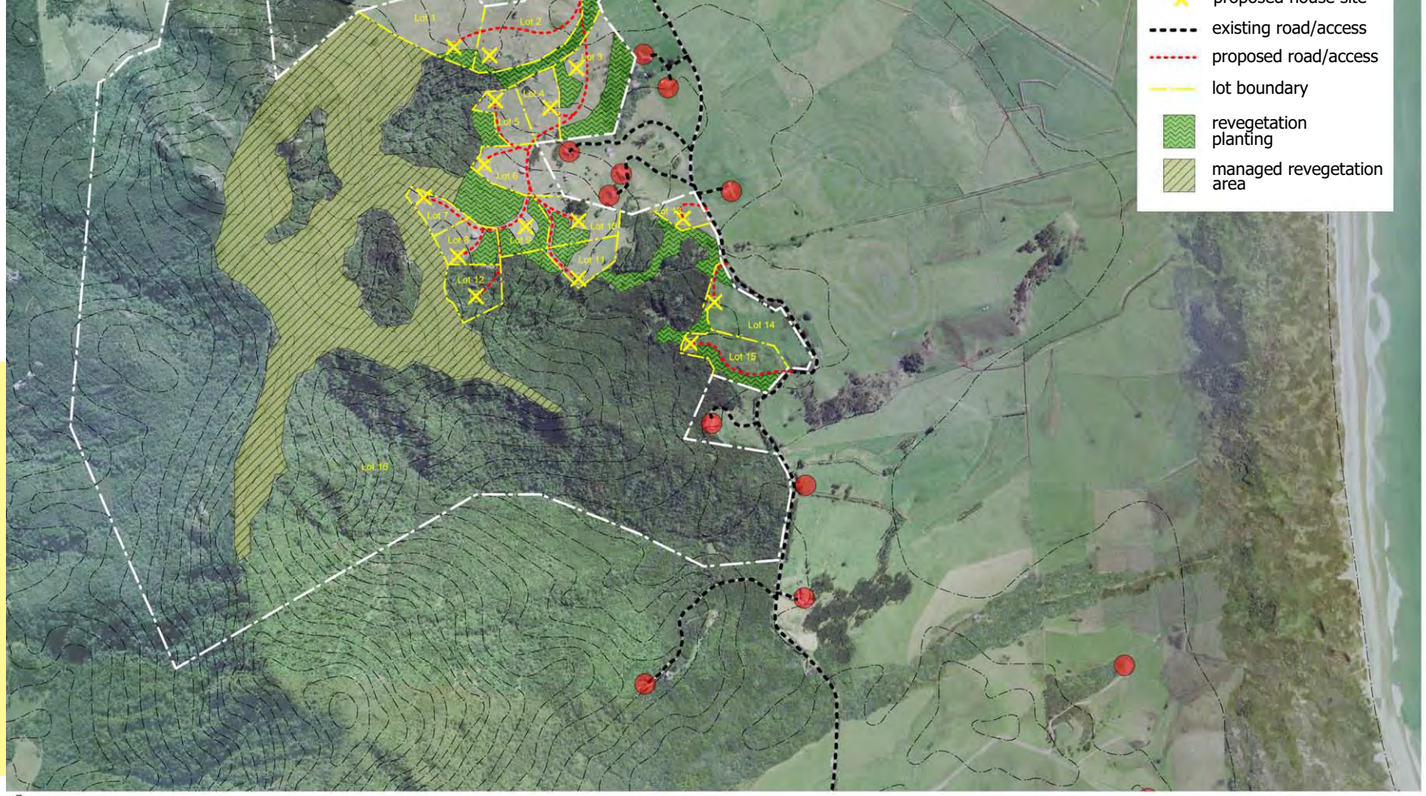


When site planning has been completed a landscape treatment plan should follow. The design of this plan should take into account the identified character of the site and wider landscape, shelter, views and existing vegetation patterns and species. New revegetation planting should give particular emphasis to the planting of native species which recognise and enhance ecological values of the site and surrounding landscape, in particular, planting should follow landform patterns, rather than un-natural lines such as straight along the boundaries, accessways and fence lines.

Refer sheet " Landscape Plan Checklist"
Guidance Detail Sheet F for further content details.

Large scale multi-lot Plan

This comprehensive site development encompassing multiple lots, displayed at right, is typical of where the Landscape Development Plan becomes a series of sheets depicting various relevant information.
The Subdivision Concept Plan sheet is an overview of the entire development lot, showing boundaries, landform, vegetation, access, north point, scale, existing and potential dwellings, existing and proposed vegetation and mitigation plantings. The sheet scale and sheet size is noted.
Typically larger scale details pertaining to particualr lots, or types of info are shown at larger scales in the sheet series, eg 1:500, 1:1000 A3.

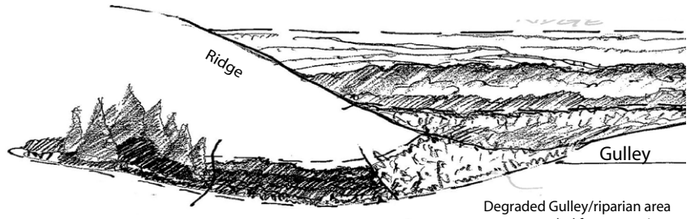


Design & Implementation - Landscape Plan Types & Intent

LANDSCAPE GUIDELINES

Quality Land Use and Implementation Outcomes
Guide to Preparing Landscape Plans

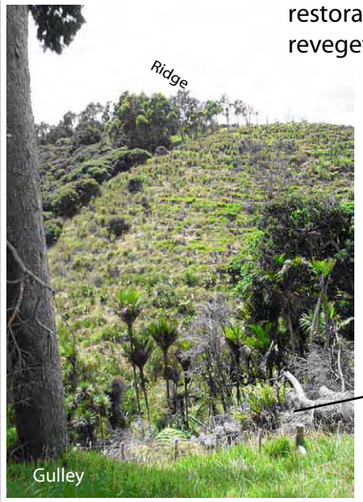
Existing Vegetation



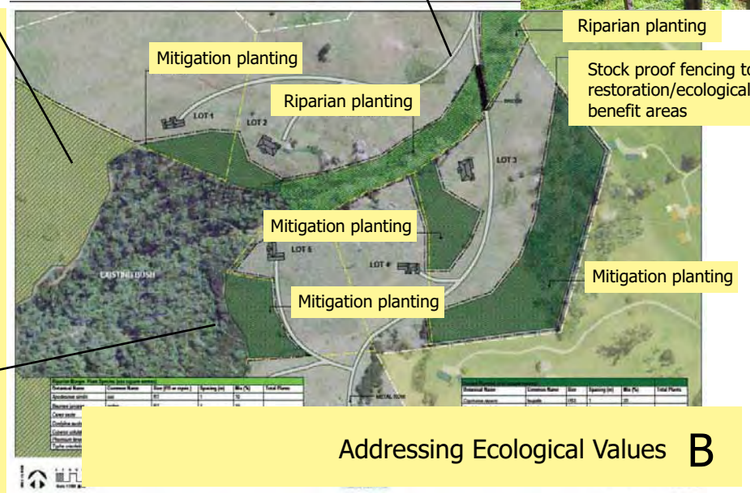
Degraded Gulley/riparian area recommended for restoration weed control, revegetation (below)

Typical restoration plant types

Reinforced with restoration revegetation plantings



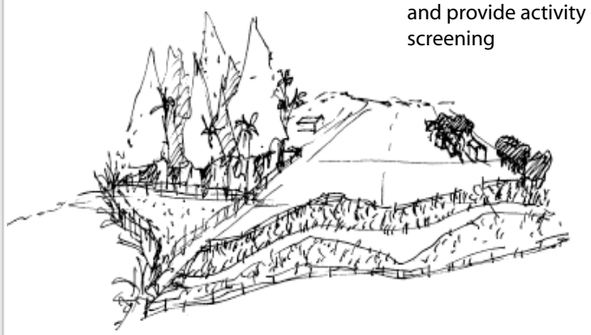
Site Revegetation Plan



Addressing Ecological Values B

Use vegetation and landform to maintain and enhance existing bush, riparian and wetland communities. Provide shade, shelter, food and roosting opportunities for bird life. Provide habitat linkages, fencelines, hedgeways, corridors, and marginal (waterway) plantings to connect existing habitats.
Use existing mature tree seed sources, and birds to naturally revegetate steep or retired gulleys, hillsides. Use locally present natives and the right plant for the right place. Ecosourcing species from the local NAP (Natural Area) can also be very effective in reinforcing existing values and improving ecological health.

Environmental Benefit Lots - tradeable development rights trade off non-development of bush and riparian areas such as the coastal forest below, and ridge and gulley bush fragments above; balancing higher density development trade-offs in other areas.



Restoration plantings strengthen the natural infrastructure and provide activity screening

Make use of existing and new native vegetation to enhance visual consistency across the landscape and provide habitat linkages for fauna (i.e. green corridors along waterways and their margins or bridges of vegetation between existing habitat blocks).

The finished appearance of the planned activity, the aesthetics of the site, and the surrounding landscape, can be improved through ecological enhancement (i.e. habitat restoration and native plantings).

Ecological restoration and enhancement can be assessed by Council as a positive effect of a planned activity.

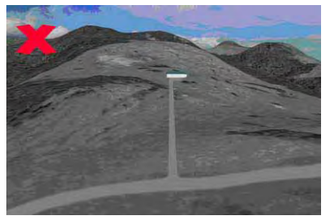
Addressing Earthworks C

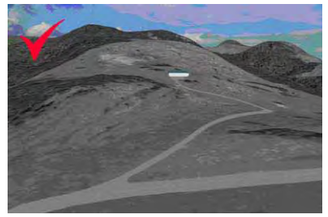
Earthworks
Earthworks (cut or fill) have the potential to permanently alter the natural shape of the landscape and increase the visual prominence of a development considerably. They also have the potential to affect the characteristics and values of the landscape that influence and enhance people's appreciation of an area and disturb cultural and heritage sites. Methods to reduce these effects include:

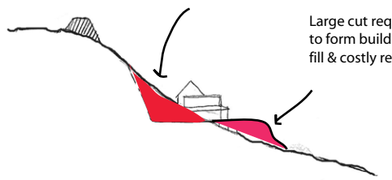
Ensure that the location of all cultural and heritage sites and their significance to different groups is identified prior to earthworks commencing on the site.

Seek to protect the character of the natural landform and any identified features of the site in the initial site layout, ensuring that any potential negative visual effects resulting from earthworks can be avoided.

Earthworks & accessways - consider how to minimise the visual, biodiversity & catchment impact of cuts and fills. Accessways running with the ground contour can do this. SW and silt control, weed invasion following earthworks are common management issues to address Commonly wilding pines, wooly nightshade, kikuyu & pampus threaten to spread into adjacent native bush or wetland areas.

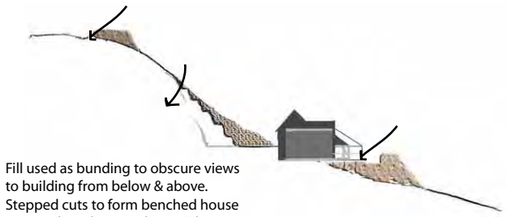






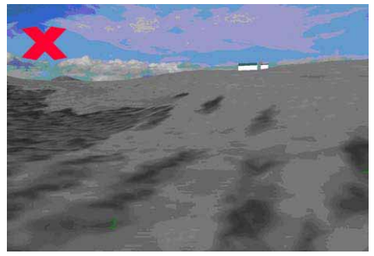
Large cut requires retaining to form building site, creating fill & costly retaining walls

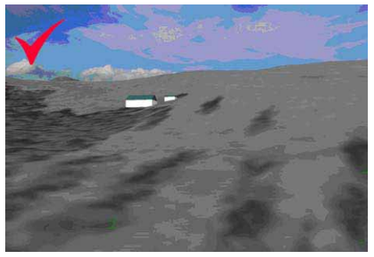
Consider the extent of cuts and fills for the building platform
Using stepped cuts allows planting and reduces visual prominence
re-using fill in bunds also aids settling the building into the land



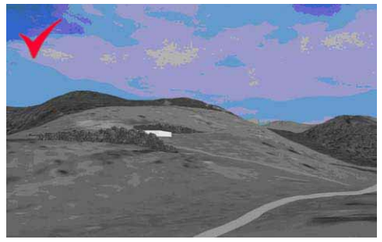
Fill used as bunding to obscure views to building from below & above.
Stepped cuts to form benched house site results in lower volume & less prominence.

On dominant slopes and adjacent to ridgelines locating buildings below the ridgeline can mitigate their effect. Couple this with height restrictions, colour controls, and roof line considerations, can reduce the impact on the visual landscape and amenity of the surrounds. Mitigation planting can also be effective.

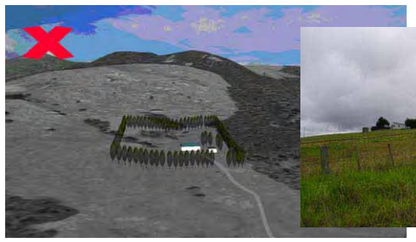


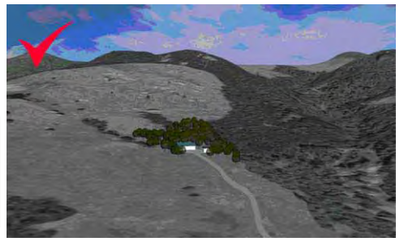


Locate buildings and structures away from highly visible and prominant areas, such as front boundaries, skylines, prominant slopes, plateau edges, or shorelines.

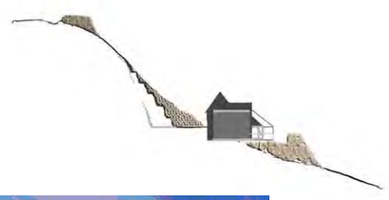


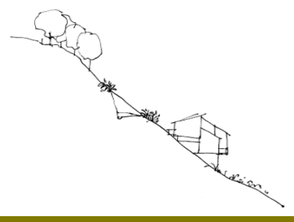
Planting should follow landform patterns rather than unnatural lines such as boundaries and fencelines.

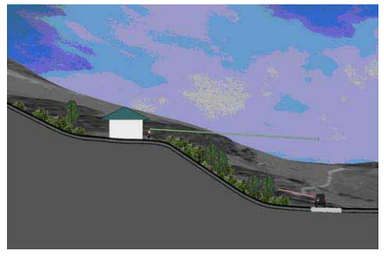




Planting can be used to screen views to a building whilst retaining, or maintaining view shafts. Bunding using fill, and manipulating ground contour and building placement on the slope can both reduce the visual impact of the building, and minimise cut/fills whilst creating level areas around the building.

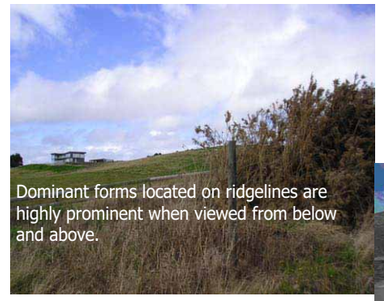




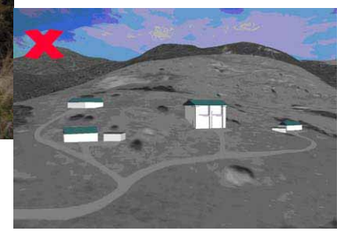


Addressing Buildings - Structure, Form, Location D External Appearance

Note : For large properties the property boundaries, roads and existing and proposed buildings, vegetation and features on the property will need to be identified on a separate Site plan, which may also include sections and elevations, as required for Resource and Building Consent applications.
For further details as to detail plan & as-built plan requirements, also refer also the WDC Environmental Engineering Standards
Refer WDC website

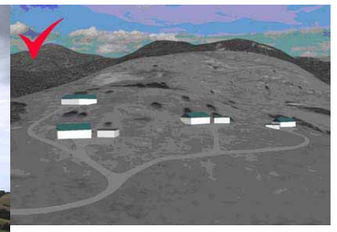


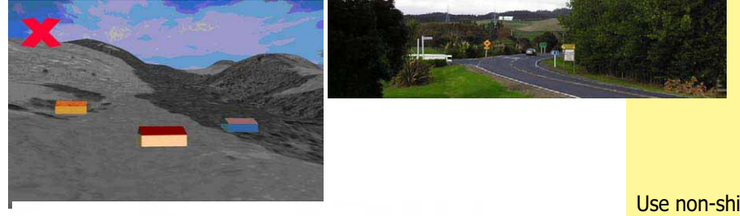
Dominant forms located on ridgelines are highly prominent when viewed from below and above.



Design controls such as location, height and colour can address the effects of buildings located on ridges that are viewed against the sky.

Ensure that buildings and structures are of a scale and design that is consistent with existing character and development within the surrounding rural area or coastal landscape. Screening, or modulating the ground and roof planes can assist with this. Clustering of built form, and maintaining a sense of openess maintains rural amenity, productive land and reduces reverse sensitivity effects.

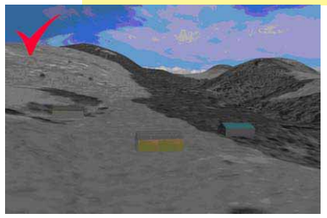




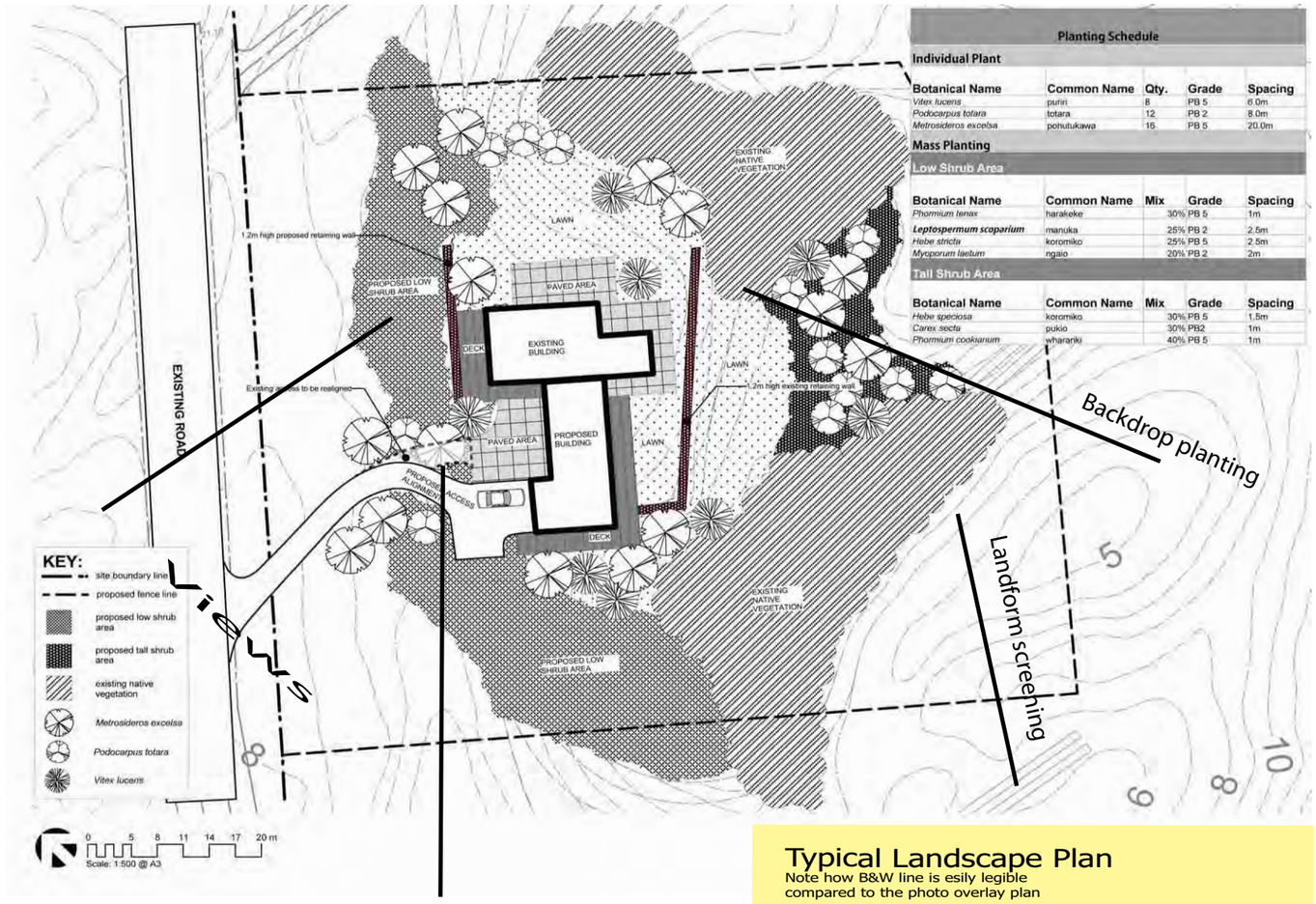
Large areas of shiny surfaces such as glass can result in high levels of reflectance when viewed from below

Use non-shiny and low-reflectance materials and colours, and the colours from the surrounding landscape to assist with the buildings and structures sitting naturally within their surroundings. Use of the rural / farm design style by using similar building materials, forms, and clustering styles can also help new developments blend with the existing rural or coastal character.

The house on the right blends in with the setting using colours from the surrounding landscape whereas the colours on the left are prominent.



LANDSCAPE GUIDELINES



Planting Schedule

Individual Plant

Botanical Name	Common Name	Qty.	Grade	Spacing
Vitex lucens	puriri	8	PB 5	6.0m
Podocarpus totara	totara	12	PB 2	8.0m
Metrosideros excelsa	pohutukawa	16	PB 5	20.0m

Mass Planting

Low Shrub Area

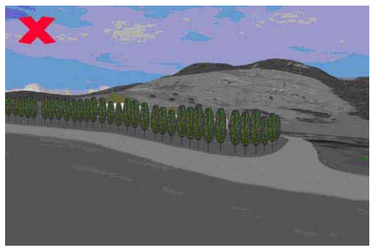
Botanical Name	Common Name	Mix	Grade	Spacing
Phormium tenax	harakeke	30%	PB 5	1m
Leptospermum scoparium	manuka	25%	PB 2	2.5m
Hebe stricta	koromiko	25%	PB 5	2.5m
Myoporum laetum	ngaio	20%	PB 2	2m

Tall Shrub Area

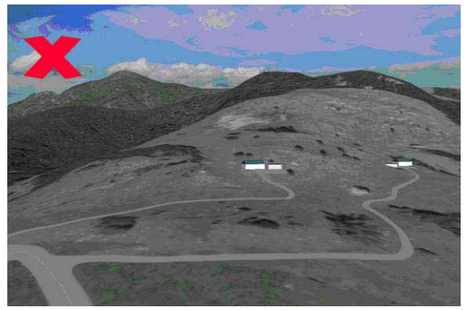
Botanical Name	Common Name	Mix	Grade	Spacing
Hebe speciosa	koromiko	30%	PB 5	1.5m
Carex secta	pukio	30%	PB2	1m
Phormium cookianum	wharariki	40%	PB 5	1m

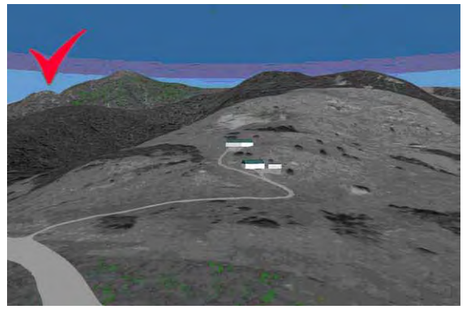
Typical Landscape Plan
Note how B&W line is esily legible compared to the photo overlay plan

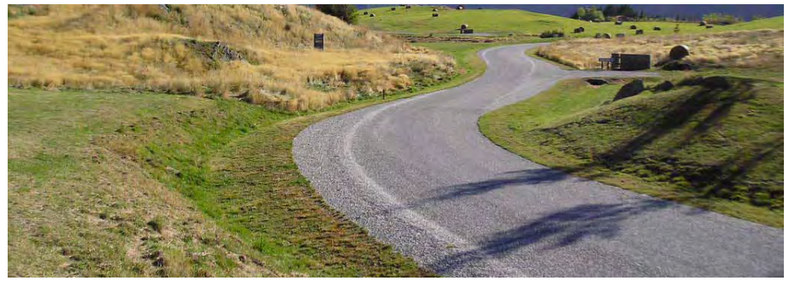
Clustered plantings should be used to reduce the prominance of buildings and structures rather than dense hedgerows that block views across the landscape.



Consider shared access to lots and sitting the access ways into the contour of the land. A rural road style, without curb and channel meets the rural character & is less visually intrusive.

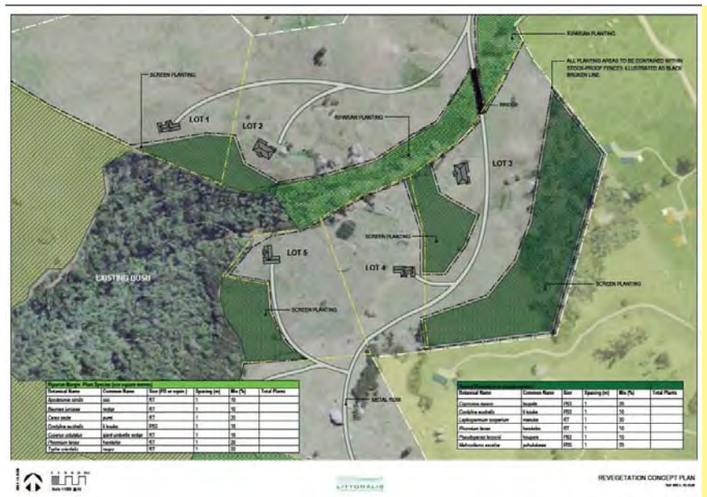




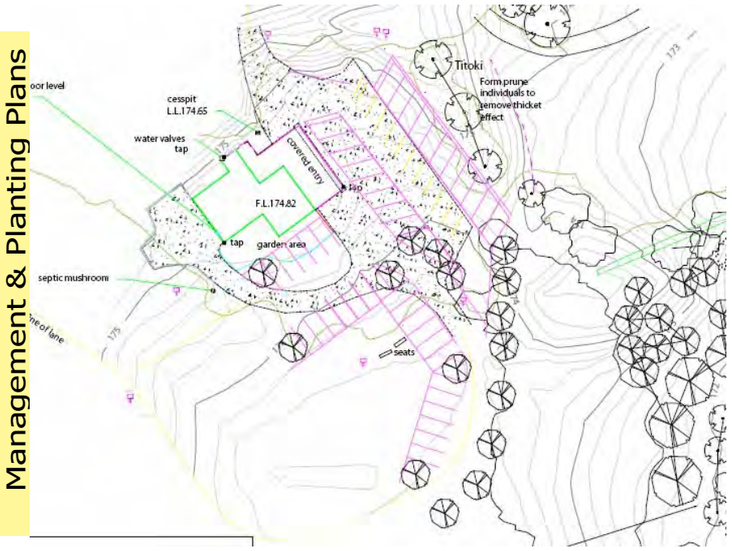


Water filtering effects such as planted or grass swales can make effective use of natural infrasturcture approaches to managing effects of access & earthworks.

Simple block planting combined with ground contour and consideration of climate control, water filtering effects, shade, shelter, view framing and privacy screening can acheive an effective integrated outcome without the requirement for huge areas of planting.
Note the ground modelling used in conjunction with planting of different heights and forms, in the photographic examples.



Typical Examples Site Revegetation Pest & Weed control, Management & Planting Plans



THE USE OF PHOTOGRAPHS AS PART OF THE LANDSCAPE PLAN

Photographs are an important tool for demonstrating elements, views, character of existing and proposed use.
A photograph demonstrates such things as context, vegetation type, condition (existing), elevation, slope, aspect, view shafts, view catchments, shading, stream condition and landscape character.

More subtle things can also be determined, such as colours, environmental condition and the ecological habitat (and associated issues).

At the post approvals 223 and 224c stages, ongoing monitoring is required. Setting up photo-monitoring points as the basis for undertaking this simplifies the process of checking and releasing bonds associated with this stage. It can be a very efficient way to monitor environmental outcomes, erosion, tree growth, drought effects, and so on which may effect establishment and survival rates.

PLANTING NOTES

- ☐ A planting intent statement is very useful, as it communicates what you are trying to achieve, and the details of the plan can be read against this.
- ☐ Planting should be undertaken between the months of March – September unless irrigation is to be provided. Species should be selected to suit the climatic and soil characteristics.
- ☐ Compacted soils should be cultivated to a loose and uncompacted condition prior to planting.
- ☐ A minimum 50mm of mulch should be added to non-turf areas after planting, with care being taken to avoid mulching over the crown of plants. Sheet plastic is not suitable for use under mulch as it prevents water absorption, oxygen exchange and increases stormwater overland flow.
- ☐ Weed and grass control within areas of planting is essential to avoid young plants being suppressed.

THE FOLLOWING IS RECOMMENDED TO CONSIDER, AND ADD WHERE APPROPRIATE IN ORDER TO CLEARLY REPRESENT THE PROPOSAL

Clear statements of'intent' for mitigation purposes, especially regarding mitigation planting and maintenance standards or regimes (i.e. detailing how effects will be avoided remedied or mitigated). Cross reference to particular treatments where planting is used for mitigation, such as irrigation beds in a treatment system, brownfields site treatments, pest and pest plant treatments, etc. Other acts such as HSNO, Building Act, may also apply.

Indicative elevations (or long/ cross sections) should be included in the landscape concept stages. Demonstrate the spatial dimensions, vertically and horizonatally of the activity and mitigation or remediation.

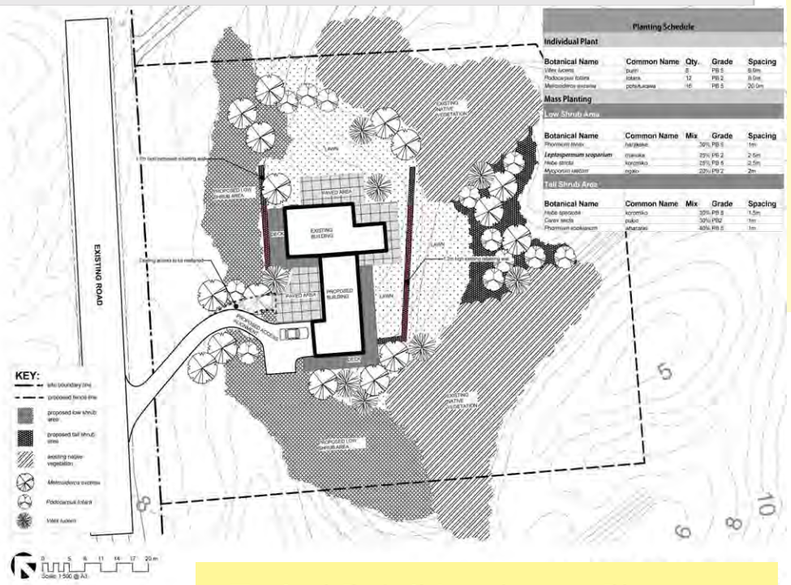
These will as a minimum portray relative bulk /positions of the activity and mitigation elements, ground contour (existing and proposed). Height definitions such as Above Ground or Rolling Height Methods (as defined in the District Plan), and height in relation to building buffers and 10 year growth size (i.e. "indicate expected size of buffer planting at the 10 year stage of the proposal for the actual site conditions".

Indicative sketches of the proposal should be included in the landscape concept stages.

Vegetation type (existing and proposed) information that is marked should include position of trunk, size, state of health, adn any particular treatments (eg formative pruning, protection of dripline from earthworks). Major weed pests identified.

Photo monitoring points should be located on the plan and numbered.
Photos recorded at each point should be numbered by view, and date, and also cross referenced to Landscape Management Documents.

Context information maybe shown on a broader scale location plan. Typically this might be at scales from 1:3000 to 1:20,000 depending on the nature of the terrain, linkages and patterns. Plan sheets should be A3 - A1 size and scales appropriate for teh level of information to be assessed.
Survey plan information (in addition to boundaries) that has relevance to the three-dimensional aspects of the site, covenants, ROWS, easements, etc should be displayed, including s6RMA public access, reserves to vest, road centre lines, unformed paper roads and overhead & undergroundservices.
Refer separate note regarding Open Space plans.



Typical Detail Landscape Plan

Landscape Plan Checklist

- ☐ Show site boundaries and any roads associated with the property.*
- ☐ Include a north point the drawing scale and the page size of the drawing (i.e. 1:200@A3).
- ☐ Show the location of all existing (to be retained) and proposed buildings and structures, plus any changes to their location and shape.
- ☐ Show the existing and proposed layout of paths and hard surfacing such as driveways and parking areas.
- ☐ Identify areas of grass, garden, retaining walls and fences, including the height of all retaining walls and fences and the materials that they will be constructed from.
- ☐ Show the location of all trees, shrubs and ground cover species. Shrubs and ground cover species can be shown as areas rather than individual plants.
- ☐ Include a plant list giving the botanical and common names, size of plant at implementation plant spacing and the quantity to be used.
- ☐ Provide a key identifying any symbols used.
- ☐ Plants should be spaced and sized so that, when mature, they will fill the planting area.
- ☐ If not indicated on the Landscape Plan, the details of materials and colours for driveways and parking areas needs to be supplied in a separate document.

- ☐ NOTE: For large properties the property boundaries, roads and existing and proposed buildings on the property will need to be indicated on a separate Site Plan, as required for Resource and Building Consent applications

All plans must have the following:

- ☐ North point.
- ☐ Spatial and survey information (Elevation, slope and aspect; Contours, gradients, existing and proposed levels, spot heights)
- ☐ Site boundaries (including those of adjoining/affected parties).
- ☐ Marked view shafts in and out.
- ☐ Marked traffic movement sight lines in relation to features like contour and vegetation.
- ☐ Where a series of sheets are present these need to be consecutively labeled
- ☐ Revision numbers, dates and the person undertaking revisions need to be clearly recorded. The approved plan version is the working document, this must therefore correspond with the final 223 survey plan.
- ☐ Dimensions and areas.
- ☐ Where areas have further detail they should be clearly labeled and referenced to the detail sheet.
- ☐ Scale in relation to sheet size, numerical scale and graphic scale (to account for scanned plans and reproduction errors not printing out at the correct scale).
- ☐ Landscape plans should clearly reference other documents and plans used in their preparation (including engineering drawings, contour plans stormwater drainage and services plans) and copies of all other documents and plans used in landscape plan production should be provided. Alternatively landscape plan information may be marked up as an overlay over building and engineering plans in order to provide adequate context and location information for decision making purposes.
- ☐ Hierarchy of line types and labels to aid legibility to the plan elements (i.e. detailing items such as building sites, boundaries, legal entities, services and landscape treatments).

REPRESENTATION OF OTHER ELEMENTS ON LANDSCAPE PLANS

To smooth the decision making process, a separate landscape plan/sheet(s) for 'Open Space' areas to be administered by the Parks Division following subdivision (most likely reserves to vest) is highly desirable. Landscape plan sheet/s for 'Open Space' areas will need to include the information requirements outlined above and should be prepared with cross-reference to all other submission material. In addition to this any open space landscape plan would need to display the following information:

- ☐ Reserves to vest (including riparian or esplanade areas).
- ☐ Road reserves (or rights of way) to vest.
- ☐ Public access such as footpaths, cycleways and easements.
- ☐ Drainage reserves adjoining existing or proposed Parks Division administered reserves.
- ☐ Reserve classifications proposed (i.e. recreation, scenic, esplanade etc).
- ☐ Conservation covenants and/or proposed QEII/open space covenants
- ☐ Existing or proposed structures