West Coast District Health Board
Te Poari Hauora a Rohe o Tai Poutini

Asset Management Plan

3rd Edition

October 2009 – 2029

Prepared for
West Coast District Health Board
By
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Executive Summary

Introduction

West Coast District Health Board has a strategic objective – to become New Zealand's centre of excellence in rural health services. This is reflected to some extent in almost everything the District Health Board does, from assessing population health needs to delivering front line health services.

Towards this objective, West Coast District Health Board has been systematically implementing and improving its asset management practices at the strategic and operational level as one of the mechanisms to support the District Health Board's vision. The current capital intentions reflect the commitment to the vision and reflect an ambition to systematically improve the District Health Board's assets and the health services that they support both in the short term and onwards over the next 20 years. The projects represented in this plan support new models of care and promote the sustainability of health services within the district in the long term.

This planning document is the Third Edition of the West Coast District Health Board Asset Management Plan (AMP). The Asset Management Plan is a representation of the District Health Board's on-going commitment to long term expenditure planning and facilities management. It also demonstrates that capital prioritisation decisions are well informed through the asset management planning process.

Background

West Coast District Health Board is responsible for planning and funding health services to the region's resident population of 31,326 people (Census 2006). It is also the main provider of primary and secondary health services for this population. Although the region occupies 8.5 % of New Zealand's total landmass, it is occupied by only 0.8% of New Zealand's total population and is isolated from the rest of New Zealand by the Southern Alps. This challenge is further complicated by the fact that the West Coast's population is one of the most aged and most socio-economically deprived populations in New Zealand.

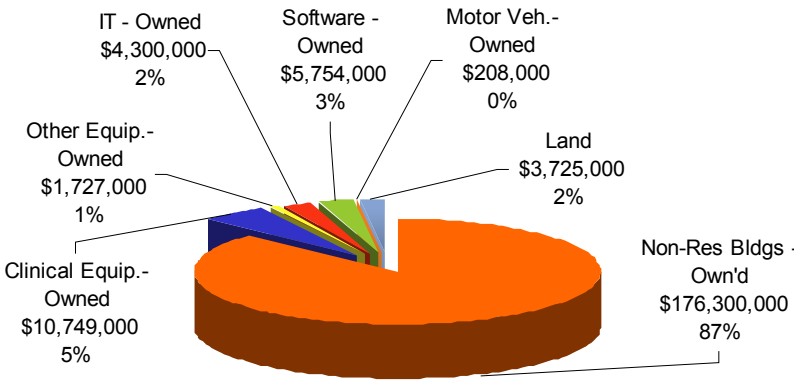
Key Considerations

There are three key considerations that inform this asset management plan.

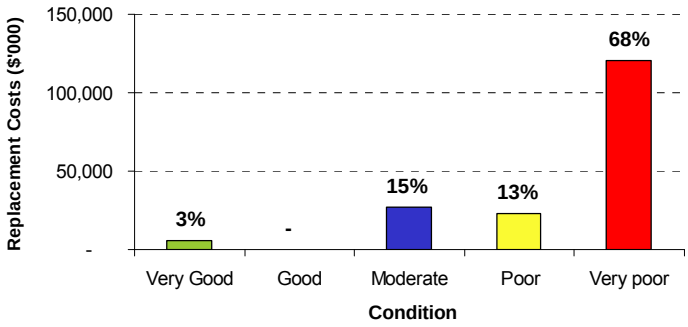
- **The intended Model of Care** – what services does the District Health Board intend to fund into the future (including where they'll be provided, how and by whom), what assets are needed for this, where they should be located and how they should be configured.
- **The age and condition of our current assets** - when will they break or need replacement, what are is the likelihood of asset failure and what are the risks and potential implications of asset unavailability.
- **Economics and Affordability** - can the District Health Board afford an asset and is it better to lease or buy.

Asset Information

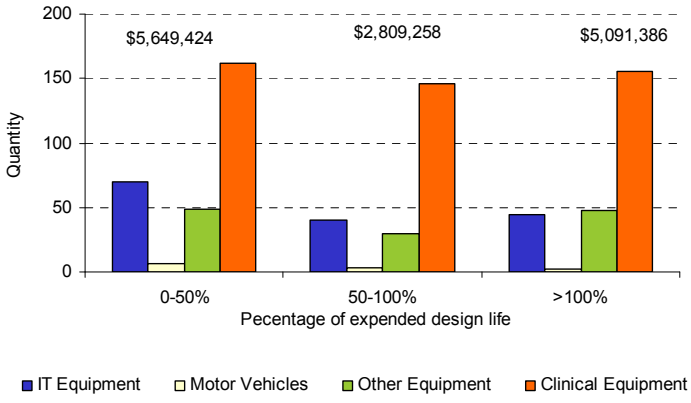
The District Health Boards three largest health facilities are located in Westport, Greymouth and Reefton which account for over 90% ($160m) of the replacement value of the District Health Boards building portfolio. There are 11 other clinics located throughout the West Coast and a number of non-clinical properties with a total replacement value of approximately $16.5 m. The figure to the right provides an overview of the breakdown of other assets owned by the District Health Board by replacement value.



The adjacent figure illustrates the condition profile of the building portfolio. A significant proportion of assessed building fabric components, plant and equipment have been assessed as reaching the end of their useful design life. In addition a number of buildings are not seismically compliant and require immediate structural attention.



Approximately 38% of the non-building assets are either near the end or beyond their useful life. These consist largely of the clinical equipment (90%) of a replacement value of $4.5m.



Summary of Key Issues

Many of the District Health Boards physical facilities are aging; they are poorly configured and are inflexible. Most were built and configured to deliver a very different model of care from that proposed for the future (and to some extent from what is being delivered currently). The key issues identified in this plan are summarised as follows:

- The current Greymouth Base Hospital facility is inefficiently configured and is at the end of its useful life. It is also structurally "unsafe" in the case of an earthquake. The West Coast District Health Board has already proposed a business case for the redevelopment of this facility; however, all of the alternatives identified in the business case are currently unaffordable.

- In the Greymouth Base Hospital Business Case, the West Coast District Health Board proposes the development of an integrated primary health centre (potentially co-locating employed and private primary health services) in a way that integrates into the Greymouth Base Hospital Development.

- The current Buller Health facility is inefficiently configured and is beyond the end of its useful life. Its also structurally "unsafe" in the case of an earthquake (significantly worse than the Grey Base Hospital in this regard). West Coast District Health Board has already proposed a business case for the redevelopment of this facility; however, all of the alternatives identified in the business case are currently unaffordable.

- The Reefton Health facility is in need of attention and is inappropriately configured for some of the health services that are provided from it. West Coast District Health Board has developed plans for the refurbishment of Reefton Health, however that needs to be considered relatively to the priorities of the Greymouth and Buller projects.

- The West Coast District Health Board has been systematically upgrading run down rural clinics and primary health centres at a rate of one per year over each of the past 5 years. Franz, Dobson and Haast clinics are included in the capital intentions for the next 5 years.

- West Coast District Health Board owns and leases a number of residential premises used for staff accommodation. Many of the owned properties are old and run-down requiring substantial investment to prevent further deterioration. A decision regarding whether West Coast District Health Board should own residential properties or lease them from commercial/private landlords needs to be made. Alternatively, another possible option to explore is the construction of purpose-built staff accommodation facilities on West Coast District Health Board land under lease-back arrangements with commercial/private landlords.

West Coast District Health Board currently owns 11 and leases around 120 motor vehicles. Whilst the own option commits scarce capital, it usually costs less than the lease option. The current fleet of old and often run-down motor vehicles have not been renewed on a regular basis and has resulted in higher maintenance costs. A decision regarding the own or lease option needs to be made for these assets as they are critical for rural health service delivery

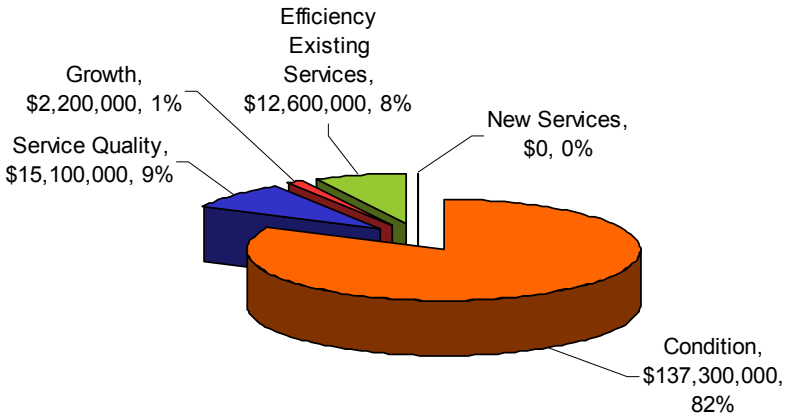
Key Strategic Projects

In addition to baseline capital expenditure of $2.6 million per year, the key strategic projects identified in this Asset Management Plan are listed in the Table below:

Strategic Project	Phased Spend ($'000s)					
	2009/10	2010/11	2011/12	2012/13	2013/14	2015-2028
Oral Health - school based dental caravans	1,300					
Franz Joseph Clinic	700					
E Referrals	300					
Financial/Procurement FMIS	499					
Reefton Hospital		3,900				
Dobson Clinic		350				
Haast Clinic			400			
Buller Hospital				16,300		
Buller Hospital Aged Care				20,000		
Grey Base Hospital					110,000	
Moana Clinic					400	
Hari Hari Clinic						400
Whataroa Clinic						500
Karamea Clinic						400
IT 2020						3,000
IT 2025						1,000
IT Inter District Health Board Integration - Virtual Shared Nationally Integrated EHR						5,000
Total	**2,799**	**4,250**	**400**	**36,300**	**110,400**	**10,300**

Capital Intentions and Drivers

This Asset Management Plan indicates the District Health Boards capital intentions for the coming 20 years. It is important to note that timing and cost will change as decisions are made regarding the Grey Base Hospital and Buller Health reconfiguration projects. West Coast District Health Board plans to spend $164 million on capital assets in the next five years consisting of $10 million of baseline capex (funded internally) and $154 million of strategic capex ($4.0 million will be funded internally and the remainder by external funding requiring Ministry approval). The adjacent figure illustrates the key drivers for the next five years



Funding and affordability

West Coast District Health Board has noted in this Asset Management Plan and various strategic documents that the District Health Board cannot afford to replace or reconfigure its Grey Base Hospital or Buller Health facilities without Government funding, including increased funding over and above the current Population Based Funding transition funding. As a result, the West Coast District Health Board will need to carefully manage the affordability of (and prioritise) all of the future capital intentions in this Asset Management Plan.

West Coast District Health Board recognises the need to seek and develop options for its major developments that aren't so dependant on scarce Government funding, but has thus far been unable to identify alternate options that meet this objective.

Improvement Plan

West Coast District Health Board recognises the importance of asset management planning and therefore has identified a programme of improvement that will address current shortfalls as follows:

- Establish appropriate Asset Management Steering Group (AMSG) that will add value to the projects identified in the Asset Management Plan.
- Actively seek collaborative arrangements with other South Island District Health Boards as part of the development of a Regional Asset Management Plan.
- Train and up-skill staff to understand asset management concepts, processes and practices.
- Review and implement any necessary improvements to the Fixed Asset Register process.
- Record condition and performance information on asset base within the asset management system.
- Develop a robust and consolidated clinical asset replacement programme that identifies requirements out to at least 10 years.
- Undertake a condition survey for all health facilities and staff accommodation buildings to establish renewal requirements over the next 10 to 20 years. This information will be used to inform the Asset Management Plan, District Annual Plan and capital budgets

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1 Introduction

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Towards this objective, West Coast District Health Board has been systematically implementing and improving its asset management practices at the strategic and operational level as one of the mechanisms to support the District Health Board's vision. The current capital intentions reflect the commitment to the vision and reflect an ambition to systematically improve the District Health Board's assets and the health services that they support both in the short term and onwards over the next 20 years. The projects represented in this plan support new models of care and promote the sustainability of health services within the district in the long term.

1.1 Why Asset Management is important

Physical assets are key components of Healthcare infrastructure and are essential to the ongoing delivery of health services to the West Coast population. The New Zealand Health and Disability Act 2000 (NZPHD) require West Coast District Health Board to (*SS 5.5. and SS 6.2*):

- provide services from safe, well-designed, well-equipped, hygienic and well-maintained premises, so far as is reasonably practicable;
- ensure facilities and equipment meet regulatory quality standards through quality control and maintenance programmes suitable for the numbers, range and complexity of equipment;
- support consumers in accessing its services, so far as is reasonably practicable, by the physical design of its facilities. District Health Boards will make specific provision for consumers with a mobility, sensory or communication disability available and make the appropriate provision such as providing interpreters and devices to assist communication for consumers with a hearing disability.

District Health Boards are required to review their Asset Management Plan (Plan) on a 3 yearly basis. West Coast District Health Board's last Asset Management Plan was completed in 2005. This 3rd Edition Asset Management Plan provides an update and progress report of the initiatives and improvement plans identified in the 2005 Asset Management Plan and also includes the District Health Boards responses to new challenges that have emerged over the last few years. The Asset Management Plan describes West Coast District Health Board's capital asset management philosophy and serves as a blueprint for the management of assets to deliver cost effective health series to the West Coast community.. . The process for implementing asset management initiatives and improvement projects are led by West Coast District Health Boards Executive Management Team and by Asset Management Steering Groups and Clinical User Groups set up for specific projects. Their role is to;

- set asset management policies and guidelines;
- ensure involvement in decision-making, gain buy-in and commitment from all stakeholders;
- set and implement asset strategies, and ensure 'things get done the right way'

This planning document reflects the on-going commitment by West Coast District Health Board to build confidence in its long term expenditure planning and to ensure capital prioritisation decisions are well informed.

1.2 Purpose of the Asset Management Plan

There are three key considerations that will inform this asset management plan.

- **The intended Model of Care** – what services does the District Health Board intend to fund into the future (including where they'll be provided, how and by whom), what assets are needed for this, where they should be located and how they should be configured.
- **The age and condition of our current assets** - when will they break or need replacement, what are is the likelihood of asset failure and what are the risks and potential implications of asset unavailability.
- **Economics and Affordability** - can the District Health Board afford an asset and is it better to lease or buy.

District Health Boards need to plan for baseline capex (funded internally through depreciation provisions) and for major capital items considered as strategic capex over 20 years. West Coast District Health Board has identified the following capital intentions:

Major Facilities	▪ Reconfiguration or replacement of the Grey Base Hospital ▪ Reconfiguration or replacement of the Buller health facility ▪ Reconfiguration or replacement of the Reefton health facility ▪ New or reconfigured oral health facilities (fixed and mobile)
Primary Health Facilities	▪ Systematic replacement or upgrade of its primary health and rural nursing facilities
Staff Accommodation	▪ Consideration of providing owned or lease properties for staff. ▪ Implementation of renewal, acquisition and disposal strategies for these properties
Major Clinical Equipment	▪ Systematic replacement of existing radiology and theatre equipment
Motor Vehicles	▪ Maintenance of a safe and modern fleet. Consideration of whether to lease or buy

1.3 Progress made

As identified in the West Coast District Health Board Statement Of Intent 2007-2010:

> *"Health is not about the bricks and mortar of a hospital but is about staying well and through initiatives that aim to reduce the impact and incidence of cancer, stroke, heart disease, diabetes and obesity by providing a clearer patient pathway."*

As one of the few District Health Boards in the country involved in the delivery of primary care, West Coast District Health Board is in the unique position of being able to implement patient journey projects that transcend traditional boundaries between primary, secondary and community health services, all with ultimate goal of keeping people healthier for longer.

West Coast District Health Board recently won the Excellence in Process Improvement category (*Alternative Pathways for new Patients*) in the 2008 NZ Health Innovation Awards. This award follows a "Highly Commended" prize in 2006 following the implementation of PriSM – Primary Integrated

Systems Management that allows for the integration of the District Health Boards electronic health records across the West Coast.

In April 2007, the West Coast District Health Board submitted a strategic stage business case seeking permission to submit full business cases for the redevelopment of Grey Base hospital in 2007 and for the redevelopment or reconfiguration of Buller and Reefton hospitals in 2008.

More recently, West Coast District Health Board has submitted updated business cases for these projects as part of the sustainability project, a joint initiative between West Coast District Health Board and Ministry of Health to define, develop and implement a model of service for the West Coast region that is clinically and financially sustainable.

This Asset Management Plan will summarise the outcomes from the considerable amount of work undertaken since the sustainability project was undertaken including the completion of the following documents:

- Business Case for Proposed Redevelopment of Buller Health (August 2008)
- Business Case for Proposed Redevelopment of Grey Base Hospital (August 2008)
- A completely updated model of care planning - *West Coast District Health Board Model of Care and Clinical Services Plan (2008-2021)*.
- An updated bed number modelling based on the 2006 census data.
- An updated site master plan for the West Coast district, including a detailed structural analysis of existing buildings.

1.4 Strategic linkages

The Government's strategic priorities are set out in the *New Zealand Health Strategy*, and the *New Zealand Disability Strategy*. These two documents supported by several other strategy papers provide a cohesive framework to guide and focus the efforts of West Coast District Health Board. They also form the basis for the West Coast District Health Board's, District Strategic Plan (DSP), District Annual Plan (DAP) and Statement of Intent (SOI).

Key government strategies that have shaped the goals and objectives adopted by the Board in this plan includes:

The New Zealand Health Strategy	The Primary Health Care Strategy
The New Zealand Disability Strategy	He Korowai Oranga: The Māori Health Strategy
The Health of Older People Strategy	Whakatātaka Tuarua
The Second New Zealand Mental Health and Addiction Plan	The New Zealand Cancer Control Strategy

In addition, the following district and regional strategies have informed and reinforced a local perspective:

District Annual Plan 2009	The South Island Regional Mental Health Strategic Plan 2005 to 2008
Model of Care and Clinical Services Plan 2008-2021	Strategic Plan 2005 – 2015
Technical Description of Bed Model Analysis for Grey Base Hospital 2008	Mental Health Rehabilitation Support Services Review 2003
Secondary Care Plan 2007	West Coast District Health Board Chronic Conditions Management Plan
Statement of Intent 2007 – 2010	West Coast District Health Board Disability Action Plan
TE KAUPAPA HAUORA MĀORI Māori Health Plan 2007-2011	West Coast District Health Board Primary Mental Health Plan
Child Health Plan 2006	West Coast District Health Board WISE (West Coast Improving Services for the Elderly) Plan
Primary Care Plan 2006 – 2011	West Coast District Health Board Youth Health Plan
The West Coast Cancer Control Strategy (Cancer Action Plan) 2006	West Coast Integrated Diabetes Service Plan
The District After Hours Plan 2006	

This plan should be read in conjunction with these documents.

West Coast District Health Board's various strategic publications identifies its vision as mission statement for West Coast District Health Board as

"To be the New Zealand centre of excellence for rural health services"

He Mihi
E ngā mana
E ngā reo
E ngā iwi o te motu
Tēnei te mihi ki a koutou katoa
He Whakatauki
"Ko tau rourou, ko taku rourou, ka ora ai te iwi"
With your contribution and my contribution we will be better able to serve the people.

The vision is supported by the following principles to improve health for the people of the West Coast:

- **Access** - provide the people of the West Coast with equitable access to a comprehensive range of primary and secondary health services in the most appropriate location.

- **Integration** - establish closer working relationships between all health care professionals to provide more comprehensive and co-ordinated person-centred health care services and to ensure seamless continuity of care for patients.

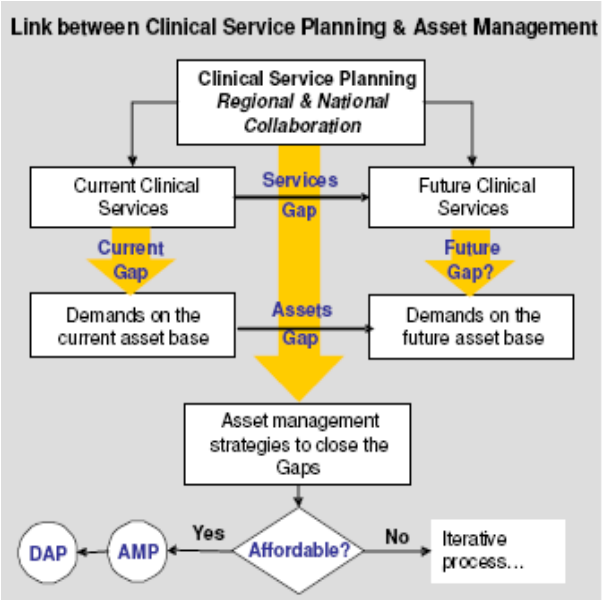
- **Quality** - the degree to which services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge.

- **Equity** - increase understanding of the cause of health inequalities and the action required to reduce these inequalities through funding and service provision at a local level.

The vision reflects a focus on population health that extends beyond just the provision of health services but also includes working closely with other agencies, healthcare organisations, iwi and community leaders. All West Coast District Health Board activities will reflect the values or the fundamental characteristics of the way the District Health Board operates and interact with the community:

'Manaakitanga –caring for others, Whakapapa – identity, Integrity and Respect".

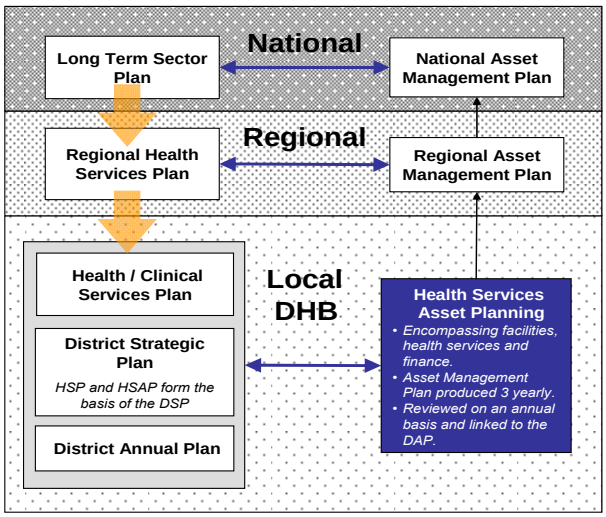
The District Health Board acknowledges that the needs and demand are effectively open-ended, and the enormous growth in health technology continues at an increasing rate. However, health funding is limited and the West Coast District Health Board is required to manage within the allocated funding. As such prioritisation involves a complex set of processes and activities that take place at different levels starting from the government, right through to clinical decisions about individual patients at a very local level. Asset management planning is an integral part of these processes and can be regarded as a 'business as usual" decision making activity as illustrated in the adjacent figure.



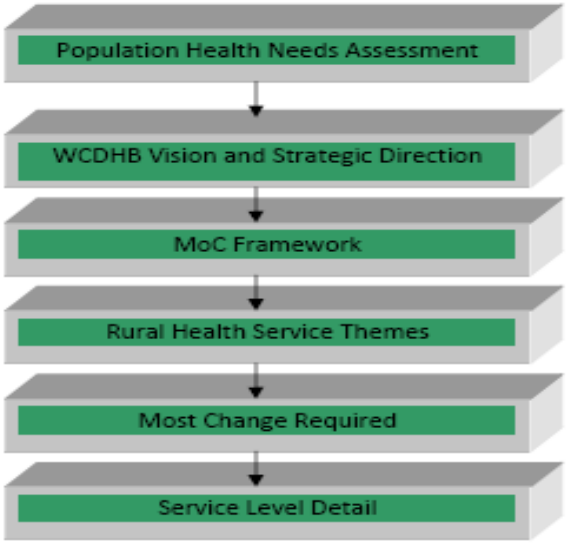
Under section 41 of the New Zealand Public Health and Disability Act, West Coast District Health Board is required to

"….operate in a financially prudent manner: to maintain long-term financial viability; to act as a successful going concern; and to prudently manage their assets and liabilities."

The Asset Management Planning framework outlined in this Asset Management Plan ensures that the District Health Boards physical assets are managed in a consistent way that best supports the District Health Board mission, strategic priorities and their outcomes. The strategic linkages between clinical service planning and asset management planning are illustrated in the adjacent figure.



West Coast District Health Board has developed a Model of Care document, which gives direction to what, where and how services will be delivered. The future model of care will need to be supported by service delivery, workforce, facility and information technology requirements. The framework of how the components of the West Coast District Health Board Model of Care link and cascade in order of increasing detail are illustrated in the adjacent figure.



The following principles or parameters have been adopted to guide development of West Coast District Health Board's services and facilities (Models of Care)[1]:

- Seamless continuum of care from public health through to tertiary and end-stage care.
- Models of care and service planning should aim to optimise health outcome.s
- Services should be provided in ways that balance health needs and equity of access against other dimensions of quality (including safety, efficiency and affordability).
- All services should exemplify excellence through the highest possible quality given the constraints of the rural environment.
- West Coast District Health Board will seek innovative solutions to service delivery and organisational problems.
- West Coast District Health Board will seek to agree an equitable and reasonable basis for funding secondary care services on the West Coast with the Ministry of Health, and then to manage services within this funding.

[1] Refer Draft Secondary Care Plan _Final Draft 25/5/07 for proposed models of care of specific services.

- West Coast District Health Board will seek to collaborate with other District Health Boards where this will improve the quality of services available to West Coasters.

From an asset management (infrastructure) perspective the table below outlines the strategic directions and summary of change needed as documented in the District Health Board's various strategic documents:

Asset	Strategic Directions	Summary of Change Needed
Facilities	Facilities that are safe, modern and provide for efficient and safe ways of working	▪ Address the facility issues of inefficient layout, refurbishment needs and seismic issues for Buller, Reefton and Grey Base Hospital ▪ Co-locate traditional primary and community services with other health services, such as the hospital in Greymouth with a public perceived prominence of primary health care
Clinical Equipment	Ensure availability of all items of clinical equipment that are critical to the delivery of the intended model of care.	▪ Identify items of equipment that have reached or near the end of their effective life. ▪ Identify items of equipment that are in a poor condition that need to be replaced irrespective of their expected design life. ▪ Prioritise systematic replacement of these equipment (by age, condition or criticality) that is aligned to the desired health delivery outcomes ▪ Systematic replacement of existing radiology and theatre equipment (major equipment)
Information Technology	Information technology provides a platform for the delivery of crucial health information and supports integration both between services and with other District Health Boards	▪ Improve access to and use of telecommunications and information technology to support clinical practice, supervision and service development
Motor Vehicles	Consideration of whether to lease or buy	▪ Implementation of renewal, acquisition and disposal strategies for these assets
Staff Accommodation	Consideration of providing owned or lease properties for staff.	▪ Implementation of renewal, acquisition and disposal strategies for these properties

This Asset Management Plan will provide the information required to ensure all physical assets are managed in a consistent manner that supports the District Health Board strategic objectives. In addition, the Ministry requires the District Health Board to demonstrate that every possible opportunity

has been undertaken to maximise health gain at both a local and regional level. This is achieved through mechanisms such as the South Island Regional Health Services Plan, South Island Elective Services Plan, South Island Regional Asset Management Plan, South Island Regional Capital Plan and so on. West Coast District Health Board's collaboration with other organisations is summarised below:

National

At a national level the West Coast District Health Board will continue to collaborate with District Health Boards New Zealand and the Ministry of Health working parties. In addition the West Coast District Health Board is engaging in collaborative initiatives with other government departments and agencies (for example Housing New Zealand, Strengthening Families) as well as informal service groups including the Older Persons and Youth service group.

Regional

The West Coast District Health Board has engaged in regional collaboration with the Canterbury District Health Board and Nelson Marlborough District Health Board for the provision of some secondary level services or components thereof and for all tertiary services.

Shared Support Agencies

A South Island Shared Services Agency Limited (SISSAL) has been established by all six South Island District Health Boards to provide some of the health planning and contracting functions required by the District Health Boards.. South Island Shared Service Agency Limited helps to ensure that a critical mass of scarce expertise is available to all participating District Health Boards, while avoiding duplication of these functions. South Island Shared Service Agency Limited currently has the capability and capacity to deal with personal health, mental health, quality improvement and audit services, but this can be developed further as other services are devolved from the Ministry of Health to the District Health Boards.

Intersectoral

The West Coast District Health Board facilitates a regional intersectoral forum, bringing together senior staff from a range of statutory and non government organisations (including Mayors of the West Coast districts councils, New Zealand Police) to work together on regional issues.

The West Coast District Health Board is also working intersectorally in the areas of child and youth health, family violence and a wide variety of health promotion activities.

Interagency

The West Coast District Health Board, West Coast Primary Health Organisation and Community and Public Health have established both a steering committee and working group for the planning and funding of public health and primary care services. This approach ensures the three agencies are working to achieve best possible health outcomes and minimises unnecessary duplication.

Regional Planning

In 2007/08 the South Island District Health Boards agreed to initiate a program of regional service planning allowing the six District Health Boards to forward plan and align their resources to meet the needs of their populations and South Island region. Regional service planning encompasses clinical and corporate support functions within the following parameters:

- Major capital projects that have a potential regional service impact.
- New service configurations that have a regional impact.
- New health interventions and technology that have a regional impact.
- Standards and guidelines development.
- The development of systems and processes or products to address health needs

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1.5 Structure of the Asset Plan

This Asset Management Plan follows the framework and toolkits developed in 2008 by the National Asset Management Leadership Group. The structure of this Asset Management Plan is based on the template provided by the Ministry's letter addressed to the District Health Boards' Chief Executive Officers and Chief Financial Officers in April 2009: ***"District Health Board Asset Management Planning Expectations 2009"*** as illustrated in Figure 1.1. The Asset Management Plan is expected to be a document that draws conclusions from the associated documents such as "service justifications", "capital intentions" and "asset management spreadsheets" appended to the document.

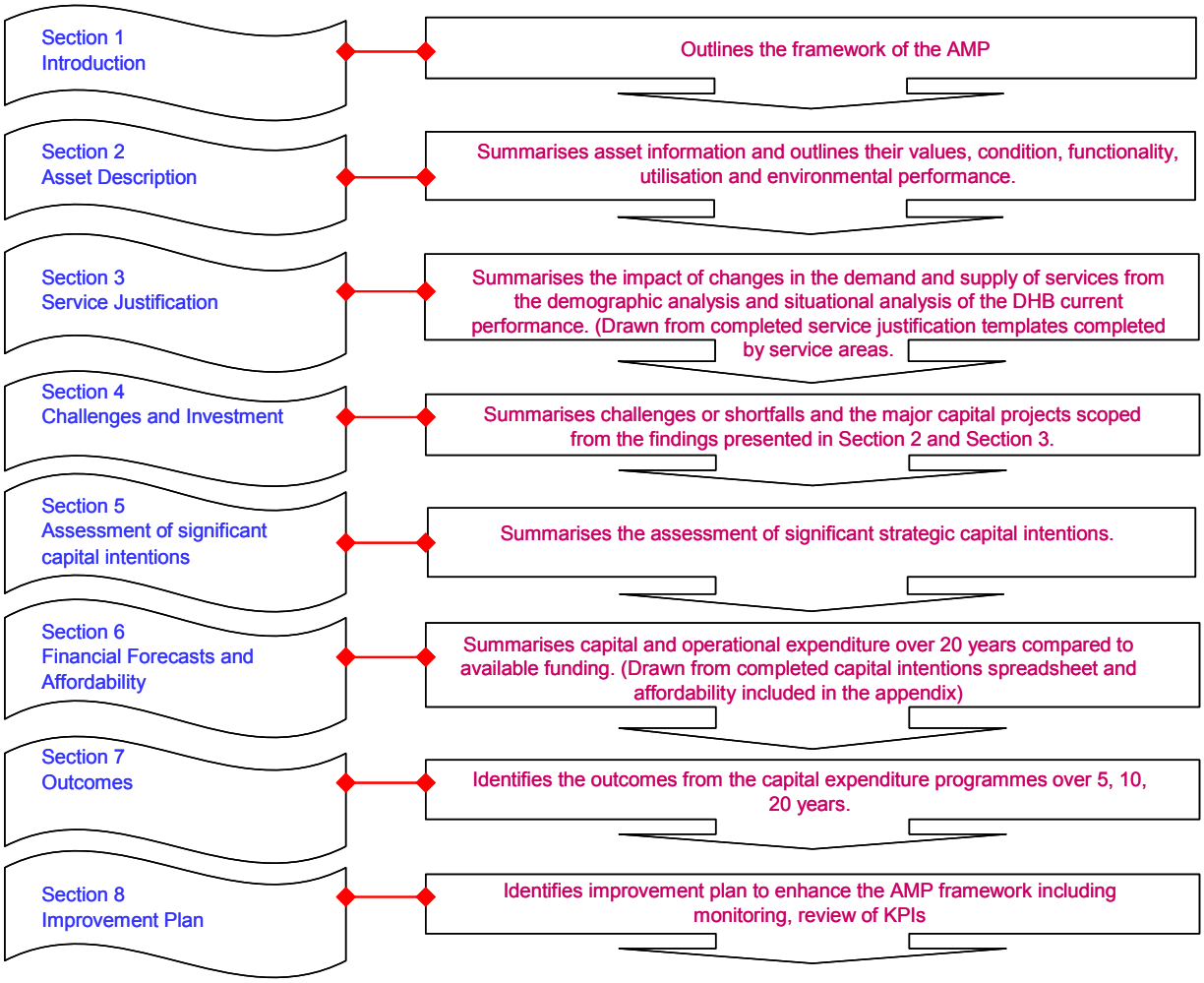


Figure 1.1 Structure of the Asset Management Plan

1.6 Key stakeholders

There are various levels of stakeholder groups associated with West Coast District Health Board. Each type of stakeholder will gain knowledge from this Asset Management Plan to inform their individual decision making process. The range of stakeholders emphasises the need to implement linkages between the operational, tactical, and strategic levels of the organisation and enable measures to be reported to each stakeholder group.

Local Iwi	▪ Te Runanga O Ngati Waewae, ▪ Te Runanga O Makaawhio
Local interest groups	▪ The West Coast region ▪ Buller, Grey and Westland Territorial Local Authorities (TLAs) ▪ Development West Coast Trust, West Coast Regional Council
Decision makers	▪ Ministry of Health ▪ West Coast District Health Board management and senior staff including clinicians.
Policy and Funding	▪ Ministry of Health ▪ West Coast District Health Board ▪ Crown Health Financing Agency ▪ New Zealand Treasury
Service Providers	▪ West Coast Primary Health Organisation ▪ Rata Te Awhina Trust ▪ PACT ▪ Independent Resthome providers ▪ Private and Non Government Organisation providers

1.7 Issues

- West Coast District Health Board provides primary and secondary health services to the region's resident population of 31,326 people (Census 2006). Although the region covers 8.5 % of New Zealand's total landmass, it is occupied by only 0.8% of the total population. In addition the District Health Board provides services to the one of the most socio-economically deprived population. A wide range of health indices and risk factors have are linked to socio-economic factors such as deprivation, income, education, labour force status, housing and occupational class. West Coast District Health Board has incurred four consecutive years of deficit financial performance, most of which has been funded internally, without the need for deficit support. This has effectively eroded the District Health Board's cash reserves in order to maintain the provision of health services. As a result, the District Health Board has a limited ability to contribute to the capital cost of future strategic projects outlined in this Asset Management Plan.
- Many buildings owned by West Coast District Health Board are near the end of their design life and have been identified as having structural, seismic and fire issues. There are a number of configuration issues on the main three hospital sites in Greymouth, Westport and Reefton that

mean the buildings do not align with the proposed Model of Care for the West Coast health services. Many rural health clinics do not comply with current health and safety requirements and so their age, condition and configuration prevent best clinical practice. These clinics are progressively being replaced or upgraded over time.

- West Coast District Health Board owns and leases a number of residential premises used for staff accommodation. Many of the owned properties are old and run-down requiring substantial investment to prevent further deterioration. A decision regarding whether West Coast District Health Board should own residential properties or lease them from commercial/private landlords needs to be made. Alternatively, another possible option to explore is the construction of purpose-built staff accommodation facilities on West Coast District Health Board land under lease-back arrangements with commercial/private landlords.
- West Coast District Health Board currently owns 11 and leases around 120 motor vehicles. Whilst the own option commits scarce capital, it usually costs less than the lease option. The current fleet of old and often run-down motor vehicles have not been renewed on a regular basis and has resulted in higher maintenance costs. A decision regarding the own or lease option needs to be made for these assets as they are critical for rural health service delivery.

2 Asset description

2.1 Overview

West Coast District Health Board has a diverse portfolio consisting of District Health Board –owned land, buildings and equipment, and some leased properties. The District Health Board provides a range of primary and secondary health care services to a population of around 30,000 via hospital and specialist services located at three main sites -Grey Base Hospital (Greymouth), Buller Medical Services (Westport) and Reefton Hospital and via a range of primary care services spread throughout the West Coast. Services include General Practitioner clinics, Rural Specialist, District Well Child and Public Health Nursing Services and Community Mental Health Services throughout the West Coast. Services are located at Karamea, Westport, Reefton, Dobson, Greymouth, Hokitika, Harihari, Whataroa, Franz Joseph, Fox Glacier and Haast. Further information on the properties is included in Appendix A.

2.2 Asset Values

West Coast District Health Board is required to publish annually consolidated financial statements, which include the book values of capital assets such as land, property, plant and equipment. These values are based on historical cost or revaluation cost. Current crown accounting policies require all crown entities to revalue land and buildings in accordance with NZIAS 16, Property, Plant and Equipment. Other items of property, plant and equipment are stated at cost, less accumulated depreciation and impairment losses (if any). The estimated useful lives of major classes of assets and depreciation rates used are as follows:

Asset Class	Estimated life	Depreciation rate
Buildings (including leasehold improvements	5-50 years	2%-20%
Plant, equipment (including IT)	2 to 20 years	5-50%
Motor vehicles	3 to 5 years	20-33%

2.2.1 Book Value

As published in the Annual Report, property, plant and equipment has a book value of $27.1 million as at 30 June 2008 (**Error! Reference source not found.**). It should be noted that some of these assets are being revalued as part of the 2008-09 annual accounts process.

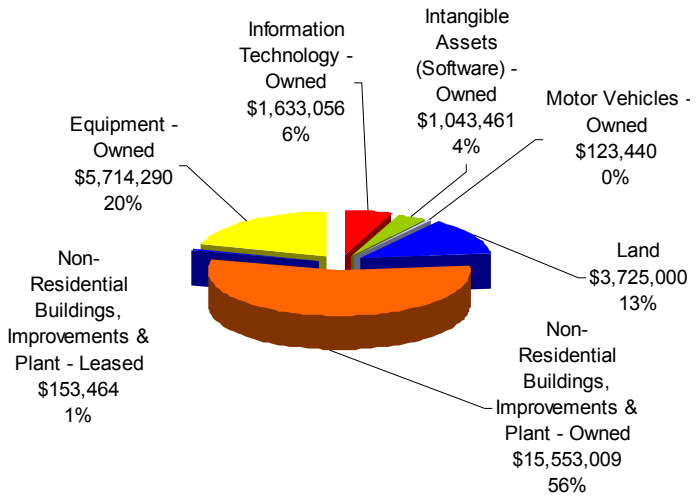


Figure 2.1 Asset Book Values

2.2.2 Replacement Value

Capital replacement value is the cost of replacing or renewing an asset with a modern equivalent asset. For building assets the capital replacement value reflects the cost of reconstructing a building considering legislation and building regulations. For non-building assets, replacement costs are based on either original cost of purchase or where applicable reflect actual current costs incurred by West Coast District Health Board or other District Health Boards. The total replacement cost of all hospital buildings is estimated to be approximately $176 million as illustrated in Figure 2.1.

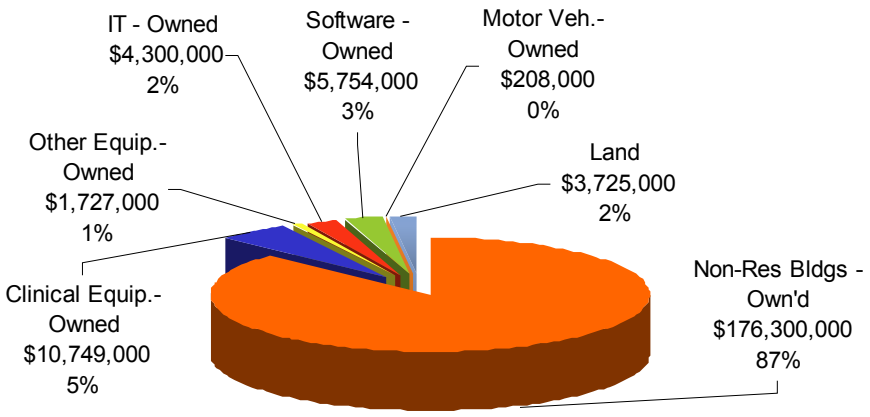


Figure 2.2 Replacement value by Asset Type

(Source: Asset Management Spreadsheet 2009)

The following references informed asset valuations:

- Estimates completed by Ryder Hunt Bucknell as part of the District Health Boards site master planning process.
- The actual cost of constructing similar buildings (for primary health clinics).
- Rawlinson Building Construction Handbook 2008,
- NAMS Health Asset Standards 2004 and (NHAS) Building Component Guidelines (BCGs).
- Recent replacement costs of major equipment by West Coast District Health Board

2.3 Condition

Condition assessment is an effective tool for strategic and tactical asset management planning. It can be used to identify deferred renewal and future replacement needs, and to prioritise identified projects. Two separate approaches have been adopted in this Asset Management Plan for building and non-building assets.

2.3.1 Key Findings

Buildings

Figure 2.2 illustrates the condition profile of the building portfolio. A significant proportion of assessed building fabric components, plant and equipment have been assessed as reaching the end of their useful design life. In addition a number of buildings are not seismically compliant and require immediate structural attention.

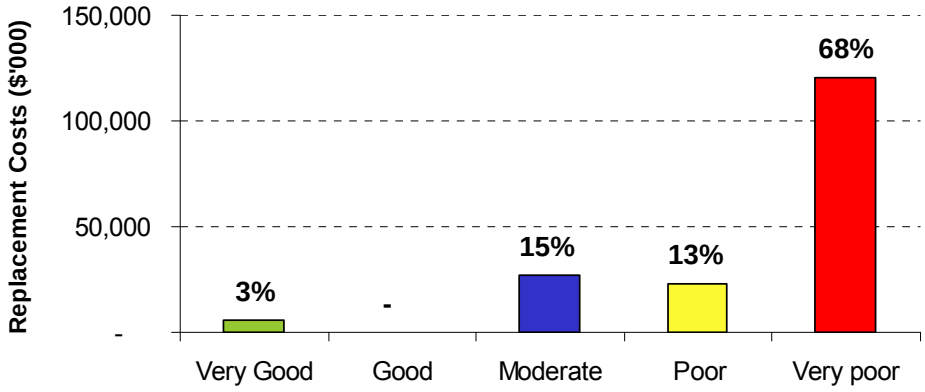


Figure 2.2 Building Portfolio Condition Profile by Replacement Value

Table 2.1 summarises the condition profile of each building as presented in the Asset Management Spreadsheet 2009s (Appendix B).

Table 2.1 Building portfolio Condition Profile

Site / Building		Condition				
Site	Building	Very Good	Good	Mod	Poor	Very poor
Derby & Cobden Streets	Buller Health				20%	80%
Shiel Street	Reefton Health			100%		
Waterwalk Road	Grey Base Hospital	5%		5%	10%	80%
Pakington & Henley Sts	Kynnersley Home			100%		
Cowper Street	Old Board Office/CAMHS				100%	
Sewell Street	Hokitika Health Centre			100%		
Waverley Street	Karamea Clinic			100%		
State Highway 67	Ngakawau Clinic	100%				
Korua Street	Moana Clinic			100%		
Omapere Street	Dobson Clinic				100%	
Main Road	Hari Hari Clinic			100%		
State Highway 6	Fox Glacier Clinic	100%				
Hannah's Clearing	Haast Clinic				100%	
Derby Street	House			50%	50%	
Shiel Street	House			50%	50%	
Buccleugh Street	House			50%	50%	
Domain Terrace	House			50%	50%	
Leith Crescent	House			50%	50%	

Table 2.1 Building portfolio Condition Profile						
Site / Building		**Condition**				
Site	**Building**	**Very Good**	**Good**	**Mod**	**Poor**	**Very poor**
Marlborough Street	House			50%	50%	
Milton Road	House			50%	50%	
Nancarrow Street	House			50%	50%	
Sinnott Road	House			50%	50%	
Power Road	House			50%	50%	

Equipment

As shown in Figure 2.3, 287 (38%) assets have expended 0-50% of their design life, 219 (29%) assets are between 50-100%, and 250 (33%) assets have exceeded their expected design life. These figures include capitalised assets under construction (i.e. WIP) but exclude decommissioned assets and disposed assets still on the fixed asset register.

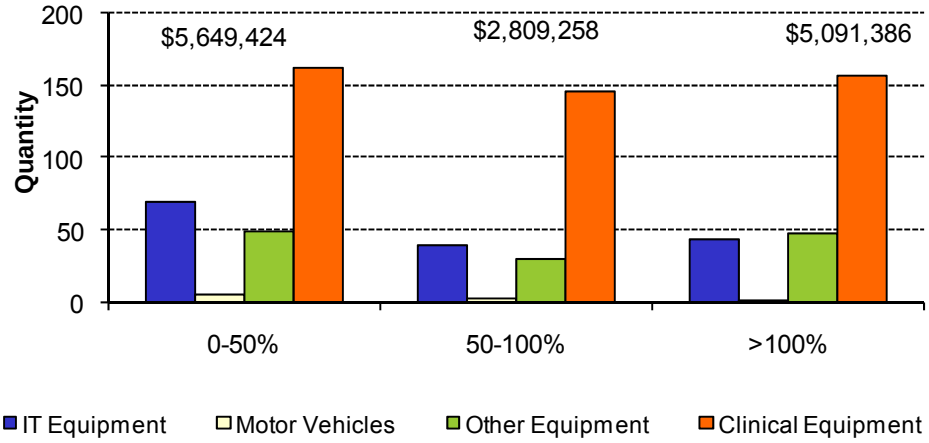


Figure 2.3 Equipment Asset Lives

2.4 Functionality

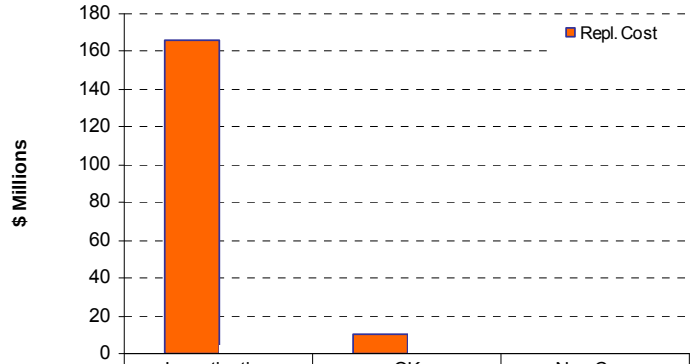
The issue of whether or not a building is suitable for its present or future clinical function is an assessment that requires professional and technical judgement from both clinical and property/facilities perspectives. Taking these issues into consideration, age is nevertheless a useful indicator of future capital requirements, and some generalisations are possible. Many of the physical facilities being used on the West Coast are aging, poorly configured, and inflexible. Most were built and configured to deliver a very different model of care from that proposed for the future, and to some extent from what is being delivered currently. West Coast District Health Board has undertaken a systematic review of its facilities to identify means in which changes to building configurations or replacement of buildings can facilitate the new models of care. The review also considered efficiency gains that could result from changes to buildings.

There are a number of factors that can affect the functionality of a building space or the building as whole. These include:

- Changes in clinical practice.
- Changes in required clinical co-locations.
- Changes in service configuration (including regional changes).
- Electrical and mechanical plant becoming obsolete or inefficient considering the types of services being delivered.
- Electrical and mechanical plant and other specialist equipment becoming unreliable due to their age.
- Internal wall layouts not suiting services being delivered.
- Floor space inadequate for current services.
- Statutory non-compliance such as seismic codes or warrant of fitness.
- Changes in organisation's policies, e.g. a requirement for existing building spaces to be energy efficient.

Figure 2.4 shows the building function status by replacement for all clinics. Considering the factors outlined above, five facilities are considered to be functionally challenged:

- Buller Health
- Reefton Health
- Grey Base Hospital
- Kynnersley Home
- Old Board Office



	Investigating	OK	Non Core
Repl. Cost	166	10.4	0
No of Bldngs	5	18	0

Figure 2.4 Buildings function status by replacement cost

2.5 Seismic Compliance

West Coast District Health Board is aware of the National Capital Committee's policy regarding seismic issues:

> *"Greater attention is now being paid to seismic risk and as a consequence adverse seismic reports more common. It is important that these risks (which are not new risks, rather they are a continuation of the status quo since a building was opened) do not become key drivers of a major project. Although remedial action might reasonably be driven by an adverse seismic report, a major development should not be. "*
>
> - *National Capital Committee, 2008.*

The problem posed by the seismic issue is that West Coast District Health Board cannot obtain any building consents for the Grey Base Hospital or Buller Health facilities until the seismic issue is resolved. As a result, a growing number of relatively small service improvements can not be actioned and as a result, clinical service delivery is becoming less and less effective over time. To some extent the District Health Board's ability to maintain public confidence is also compromised. West Coast District Health Board has completely revisited its facilities master planning for Grey Base Hospital site as a result of the independent review conducted in April 2008.

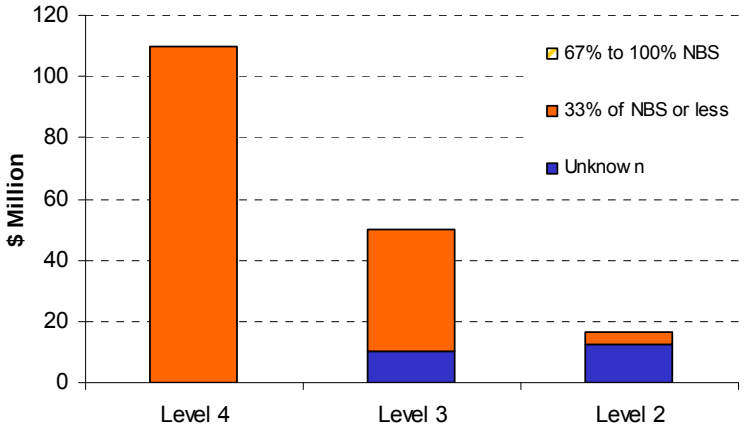


Figure 2.5 Seismic Compliance of Buildings

Detailed structural engineering advice regarding options for upgrading the existing facilities to meet current Building Act requirements has been sought, however this advice has been that most of these existing facilities cannot easily be strengthened to meet importance level 3 (for medical facility buildings that do not serve a post disaster function) and none of the buildings are able to be strengthened to meet importance level 4 (for buildings that serve a specific post disaster function). This situation is reflected in the Seismic compliance profile in Figure 2.5.

2.6 Utilisation

Most of the buildings are currently fully utilised with some exceeding capacity. It is identified that a more efficient configuration is required, and that gross floor area of new facilities proposed are not necessary bigger than current facilities.

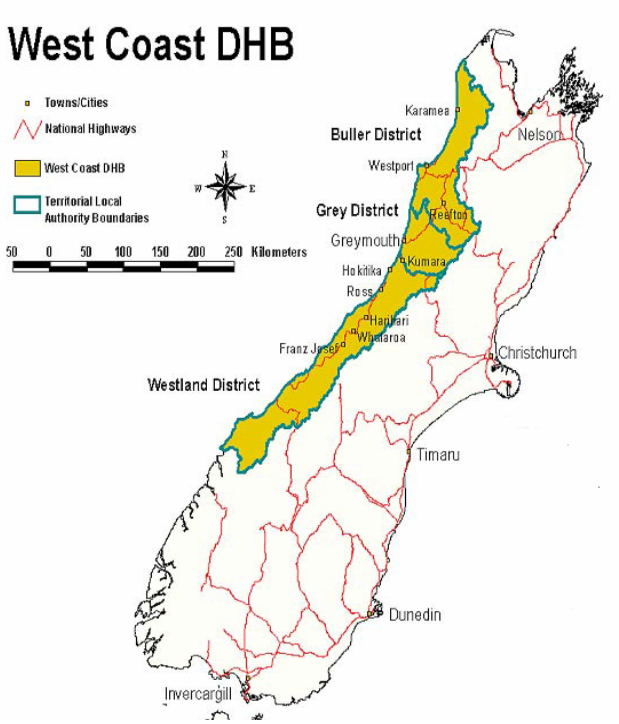
2.7 Environmental Performance

Decreasing the total energy consumption in West Coast District Health Board facilities will have a direct impact on operational costs of those facilities as well as a positive impact on the environment. West Coast District Health Board is committed to leading the way in effective building operations and management. West Coast District Health Board is achieving this goal by implementing energy efficiency and renewable energy projects, installing self-generation, implementing sustainable design principles in new construction and major renovation projects, and proactively upgrading energy systems. The District Health Board is currently investigating the option of using solar water heating in its rural clinics, for example.

3 Service Justifications

3.1 Overview

West Coast District Health Board provides primary and secondary health services to the region's resident population of 31,326 people (Census 2006). Although the region occupies 8.5 % of New Zealand's total landmass, it is occupied by only 0.8% of the total population. The West Coast covers the area between Karamea in the north and Haast in the south and extends east to Springs Junction as shown in the adjacent map. Landmass length is approximately equal to the distance between Auckland and Wellington; a land area of 2.3 million hectares, much of which is rugged with scattered small and isolated pockets of population. As such, West Coast District Health Board is the most sparsely populated District Health Board in the country with a population density of only 1.3 people per square kilometre, less than 10% of the New Zealand average.



The West Coast has three districts – Buller, Grey and Westland managed by three Territorial Local Authorities. The population by districts from the 2006 Census is as follows:

Buller District	9,702
Grey District	13,221
Westland District	8,403

Of the three Territorial Local Authorities that make up the West Coast (Buller, Grey and Westland), the Buller district consistently has the highest level of deprivation. South Westland is the least socio-economically deprived but the most disadvantaged in terms of geographical isolation.

The following sections summarise the impact of these indicators as detailed in the service justification spreadsheet in Appendix D.

3.2 Demographic Analysis

West Coast District Health Board has used the demographic data from the 2006 census to set priorities for health funding, strategic planning and asset management planning. The demographic makeup and projection of its population is summarised below.

3.2.1 Demographic Summary

- Lowest population density of any District Health Board in New Zealand where 0.8% of the national population occupy 8.5% of the total New Zealand land area. Only 64% of West Coast residents reside within 60 minutes ("The Golden Hour") travel time by car from secondary

hospital services. Only 2% are within 180 minutes travel time by car from the nearest tertiary hospital in Christchurch.

- 79.6 percent of people belong to the European ethnic group, 9.7 percent belong to the Maori ethnic group. 2,916 Māori usually live in the West Coast region, an increase of 369 people or 14.1% since 2001.
- The median age of the West Coast population in the 2006 census was 40.3 years compared to the median age of 35.8 years in the total New Zealand population. The median age of the Māori on the West Coast (21.4 years) is slightly lower than the national median (22.7 years).
- The West Coast populace has predominantly more males than females, particularly in the 40-46 years age group.
- The average age of West Coasters is one of the oldest in the country at 52 years. The West Coast population currently has a slightly older age structure than New Zealand as a whole, with a higher proportion of people aged 65 years or more when compared with the national average.
- 49.4% of the West Coast population over the age of 15 have an annual income of $20,000 per annum or less.
- 36.3% of West Coast people aged 15 years and over have no formal qualifications compared with the New Zealand average of 25%.
- The West Coast has a high number of smokers compared with other regions. West Coast teenagers have the second highest rate of smoking in New Zealand and 18.6% of the West Coast population are regular smokers.
- The West Coast has high levels of drug, alcohol and substance abuse.
- Immunisation rates are too low to provide adequate protection for the whole community.
- The West Coast has highest rate of motor vehicle accidents in New Zealand, partly related to high tourist numbers.
- Employment on the West Coast is dominated by high-risk industries e.g. farming, mining, fishing, forestry.
- Relative to the rest of New Zealand, the West Coast population has both low fertility and birth rates.
- The West Coast has higher mortality rates than New Zealand overall. Mortality rates for West Coast males, particularly from cancer, circulatory disease and respiratory disease, are on average higher than the rest of New Zealand.

3.2.2 Anticipated Demographic Changes

The 2006 census shows a small increase in population residents in the region compared to the last census. However, in terms of total national population, the West Coast fell from 0.8% to 0.7% of the total population. The long term population projections indicate that the West Coast region as a whole will observe a minor decline in overall population of 3% by 2026.

Population projections up to 2026 indicate a reduction in the population for all age groups under 65 years, with population growth expected in the oldest age groups. Births on the West Coast are projected to decline over the next 30 years while deaths are projected to increase during the same period. The most significant changes being a 65% increase in the population aged 64-84 and a 95% increase in the population aged 85+ as shown in Table 3.1.

Table 3.1 West Coast Population Projections - Age Groups					
Age Range	**Current year 2009**	**2009 to 2016**	**2017 to 2021**	**2021 to 2026**	**% of increase over 20 years**
0-14	6,125	5,620	5,390	5060	-17%
15-24	3,745	3,380	2,770	2,655	-29%
25-64	17,425	16,850	16,400	15,155	-13%
65-84	4,310	5,430	6,280	7,250	+68%
85+	500	670	775	975	+95%
Total	**32,105**	**31,950**	**31,615**	**31,085**	**-3%**

The population decline is predicted across all three Local Government Areas with the greatest decrease in the Buller District. By 2026 the Buller District population is forecast to decrease by 6%, the Grey District population is forecast to decrease by 2.2%, and Westland District population is forecast to decrease by 2.3%. Table 3.2 provides a summary of population changes by local authority district.

Table 3.2 West Coast Population Projections - Local Authority District					
District	**Current year 2006**	**2009 to 2016**	**2017 to 2021**	**2021 to 2026**	**% of increase over 20 years**
Buller	9,900	9,800	9,600	9,300	-6%
Grey	13,500	13,500	13,400	13,200	-2.2%
Westland	8,600	8,600	8,600	8,400	-2.3%
Total	**32,105**	**31,950**	**31,615**	**31,085**	**-3%**

3.3 Impact of changes in the demand and supply of service

3.3.1 Health Changes and Trends

With a projected growth in specific populations such as the elderly population and Māori youth population, present health inequalities among these groups could continue into the future. Moreover with a projected overall population decline over the next twenty years, the current population based funding model will pose serious difficulties for health service delivery in addition to accessibility issues caused by the sparse population distribution and geographical isolation.

Managing and treating chronic diseases will remain an important consideration for the West Coast. However the rural characteristics, socio-economic deprivation, shortage of health resources, and health professionals on the West Coast will compound this problem further. Hence future models of care and health programmes have to place a heavy emphasis on population health principles such as health promotion, increasing upstream investments, applying multiple strategies, collaborating across sectors and levels, and employing mechanisms for public involvement. This approach will decrease the incidence of chronic diseases in the long-term, ease the burden of managing chronic diseases for

the primary and tertiary health sectors and place some of the responsibility of managing health in the hands of the community.

The following health changes have been identified in the *"Model of Care and Clinical Service Plan 2008-2021"* as challenges causing a need for future change in how the District Health Board delivers healthcare services:

- The pressure on health and disability support services from an ageing population, which needs a more proactive approach to older peoples' health and fitness.
- Increasing burden of chronic disease and the need for prevention and management of this.
- Increasing consumer expectations and behaviour in terms of the speed and type of care they can access.
- Improving patient self management options.

The following trends identified in the 2005 Asset Management Plan remain valid:

- The current tourist population of approximately 4,500 per day is expected to grow considerably over the next 10 years. Although hospitalisation rates for overseas visitors are consistent with the national average, their use of primary care or hospital outpatient/emergency services is significant. Of note, the tourism demographic for the West Coast is largely associated with high proportion of retired people – leading to an increased possibility of hospitalisation for pre-existing medical conditions.
- The continued development of high risk industries, such as coal and gold mining, is likely to place increased pressure on provision of A&E and surgical services. Injury is a particular concern for men, with five times greater likelihood of mortality from injury than women, and nearly twice the probability compared to men elsewhere in New Zealand.
- Hospitalisation rates are also significantly higher when compared to the New Zealand average. Lead causes of ambulatory sensitive admissions for the West Coast population over the recent years in terms of total raw hospitalisations are: angina; chronic obstructive respiratory disease (CORD); ischemic heart disease; stroke; respiratory infections; cellulitis; kidney and urinary tract infections; gastroenteritis; congestive heart failure; and dental conditions. This is due to:
    - An increasing proportion of the West Coast population over the age of 65 years.
    - Increasing obesity rates (currently 57% of the West Coast population is thought to be overweight or obese).
    - High smoking rates that contributed to $2.5 million in hospitalisations. New Zealand Health Survey 2003/04 estimates 25% of the West Coast population smokes.
- Oral disease is increasing, particularly amongst child and adolescents. West Coast has the lowest rate of caries free five-year-old children in New Zealand. This problem is likely to be exacerbated by the recent decision not to fluoridate the community's drinking water supply.

- Motor vehicle crashes is one of the most significant causes of hospitalisation on the West Coast, compounded by the higher than average levels of drug, alcohol and substance abuse in the community.

- Birth rates for the West Coast population as a whole are expected to remain relatively steady or decline, however the expansion plans for the Gloriavale community could place increased pressure on maternity and paediatric services.

- Environmental health issues of substandard drinking water supplies and sewage disposal have led to periodic occurrences of water-related or water-borne diseases.

- Rainfall that is around twice the national average may have implications for people with respiratory illness and arthritis.

3.3.2 Technological Changes

The following technological advancements are already impacting on the future demand for health services provided by West Coast District Health Board;

- The implementation of PACS (2007) enabled remote diagnosis of West Coast patients so that appropriate decisions can be made about whether or not to transfer patients to alternative District Health Boards of to treat the patient on the West Coast.

- The Project PRIsM (2005) (Primary Integration Services Management) implemented a centralised rural health patient administration system. The system allows remote access to patient records, near real time access to laboratory and radiology results and access to national health data repositories from the District Health Boards in rural remote service locations.

- Video conference and telemedicine advances will decrease the reliance on locums to be on site to provide specialist outpatient services. This will be a particularly important as West Coast District Health Board moves towards a closer collaborative relationship with Canterbury District Health Board and other South Island District Health Boards.

- Advancements in stroke management technology, particularly trans-cranial dopplers, will increase the visibility of stroke symptoms for AT&R patients.

- Improved transport systems, fixed wing and helicopter services, will enable the more effective transfer of patients to tertiary care providers.

- Surgical instrument advancements have significant impact on cleaning and sterilising services.

- The increased use of endoscopic / laparoscopic surgery procedures has significantly reduced the length of stay for patients, allowing people to return to work earlier.

3.4 Current and Future Service Requirements

The increase or decrease in demand for health services will have differing impacts on West Coast District Health Board's asset base. Understanding how West Coast District Health Board's assets will deliver the required health service levels against changing demand patterns will form a key Asset Management Plan improvement activity.

Service changes as a result of population changes will need to occur in the following areas:

- **Primary Health Care:** Increasing demand for General Practitioners and practice nursing service, district nursing and home based support services.
- **Secondary Services:** Increasing demand for elective surgical services – particularly knee and hip replacements and ophthalmology and increasing demand for medical inpatient and outpatients, and for AT & R services.
- **Mental Health:** Increasing need for services for older adults and Kaupapa Maori service with a reducing demand for child and adolescent services.
- **Older Persons Health:** Increasing need for rest home and hospital level care, dementia care services and home support and district nursing services.
- **Maori Health:** Increasing need for Kaupapa Maori Health Services, Increasing need for chronic conditions management services.

3.4.2 Inpatient Volumes

Figure 3.1 and Figure 3.2 summarise the results of an inpatient data analysis based on discharges between 1 July 2006 and 31 May 2008 for the three West Coast health facilities. The analyses excluded emergency department and outpatient data which was analysed separately[2]. There were 12,176 discharges over the 22 months. 86% of all discharges were from Grey Hospital (5,711 annually), 13% from Buller, and 1% from Reefton. 50 % of all admissions to Grey Base were acute and 50 percent elective. The average length of stay was 7 days.

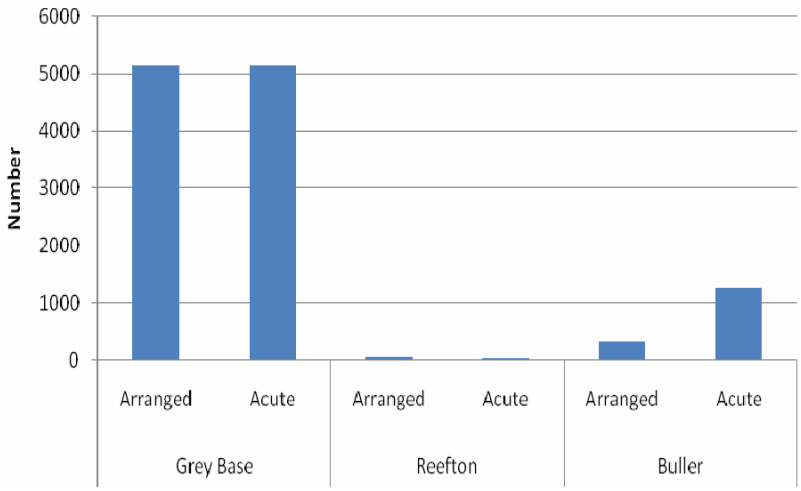


Figure 3.1 West Coast District Health Board Discharges by Admission Type

In 2007 30% of admissions were medical, 28% surgical, 12% obstetric, 2% paediatric, 1% emergency medicine, 5% gynaecology, 2% neonatal, 2% ophthalmology, 2%mental health, 2%AT&R and 1% geriatric. Of those discharged to other destinations in 2007, 200 were to Christchurch Public Hospital and 49 to Christchurch Women's Hospital which equated for 96 percent of discharges that went off the Coast.

[2] Refer West Coast District Health Board Sustainability Project – Model of Care Paper appendix 10.

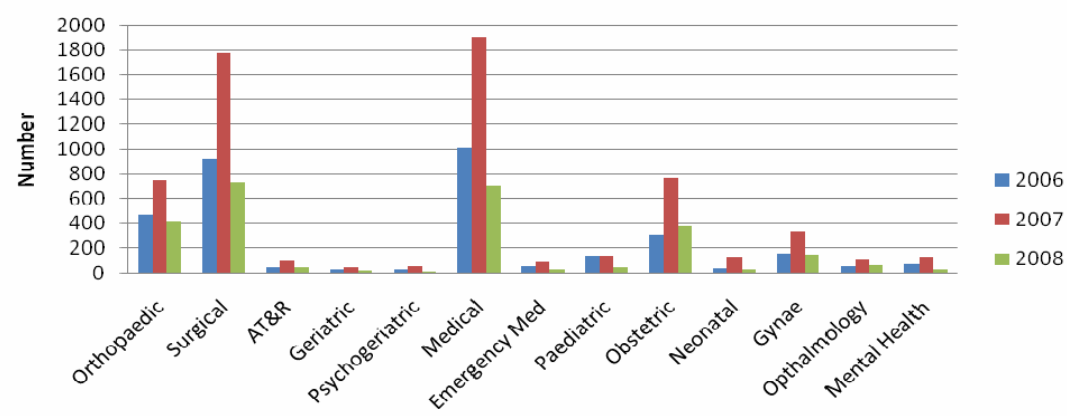


Figure 3.2 West Coast District Health Board Discharges by Speciality

Table 3.3 presents the inpatient volume projections based on the analysis.

Table 3.3 Inpatient Volume Projections

Specialty	Base Year 2006/07	Current Year 2007/08	2011	2016	2021	2026	% Increase over 20 years
Surgical services	2,086.33	2,305.40	2,300.00	2,300.00	2,300.00	2,300.00	10%
Medical services	1,015.37	1,118.92	1,118.92	1,118.92	1,118.92	1,118.92	10%
HDU	0	0					
ICU	included above	included above	included above	included above	included above	included above	
Maternity	539	421	480	480	480	480	-11%
Paediatrics	54.49	52.38	55.00	55.00	55.00	55.00	1%
Mental Health	120	144	150	150	150	150	25%
Psycho geriatrics	32	6	15	15	15	15	-53%
Rehabilitation	98	95	95	95	95	95	-3%
NICU	48.10	45.91	46.00	46.00	46.00	46.00	-4%
Primary GP beds (Buller and Reefton)	757	771	780	780	780	780	3%
Psycho geriatric AT&R	15	11	15	17	18	18	20%
Surgical services	2,086.33	2,305.40	2,300.00	2,300.00	2,300.00	2,300.00	10%

Commentary: Includes day case volumes as well as inpatient volumes. Includes outsourced ophthalmology volumes (provided under contract via our Provider Arm) as identified in the Electives section above. The following have been listed in terms of WEIS case weights: surgical, medical paediatric and NICU services. The remainder (- maternity, psycho geriatric, rehabilitation (Geriatric AT&R), geriatric long stay, Primary GP beds, and psycho geriatric AT&R) are expressed in raw discharges - as these are not purchased on a case weight basis.

3.4.3 Ambulatory Attendance

Table 3.4 presents the ambulatory volumes projections by speciality.

Table 3.4 Ambulatory attendance volumes projections

Specialty	Base Year 2006/07	Current Year 2007/08	2011	2016	2021	2026	% Increase over 20 years
Radiology MRI	0	0					
Radiology CT	1,860	2,060	2,064	2,068	2,072	2,077	12%
Radiology Other	17,338	18,510	18,500	18,501	18,502	18,503	7%
Emergency Department	14,597	14,351	14,500	14,500	14,500	14,500	-1%
Outpatients FSA	5,351	5,613	5,624	5,635	5,647	5,658	6%
Outpatients FU	10,210	10,734	10,755	10,777	10,799	10,820	6%
Outpatients Other							
Other (specify)	658	749	750	750	750	750	14%
Total	**50,014**	**52,017**	**52,194**	**52,232**	**52,270**	**52,308**	**5%**

Notes: Outpatient volumes are for Specialist personal care outpatients only. The "Other (specify)" volume is for specialist Psychiatrist outpatient total attendances only (excludes other mental health staff activity). Excludes allied health, nursing and other areas.

3.4.4 Inpatient Beds

Table 3.5 shows the future bed requirements for Grey Base Hospital considering inpatient data analysis, Ministry of Health bed modelling, and the new model of care.

Table 3.5 Bed Requirements for Grey Base Hospital

Speciality	Current #	Proposed	MoH Model 2020/21
Medical		19	21
Surgical		27	21
Paediatrics		2-4 (Flex)	3
Women's health		6	5
AT&R		9	10
Critical Care		5	4
Total	**92 (From MoH bed modelling paper)**	**68**	**58 (2007/2008 67 (2020/2021)**

There are currently 92 available beds at Grey Base Hospital for Medical, Paediatric, Surgical, Pregnancy/Birth, Neonatal ICU, Critical Care and AT & R inpatient and day patient services. Based on Ministry projections, Grey Base Hospital needs:

- 58 beds for 2007/08

- 61 Beds for 2010/11
- 65 beds for 2015/16
- 67 beds for 2020/21 and,
- 72 beds for 2020/26

Table 3.6 presents the projections inpatient bed numbers by speciality.

Table 3.6 Inpatient Bed Projections by Speciality

Specialty	Base Year 2007/08	Current Year 2008/09	2012	2017	2022	2027	% Increase over 20 years
Surgical services (incl.gynae)	20	20	20	18	18	18	-10%
Medical services	17	17	17	19	19	19	12%
HDU	4	4	4	5	5	5	25%
ICU	0	0	0	0	0	0	
Maternity	8	8	8	6	6	6	-25%
Paediatrics	4	4	4	3	3	3	-25%
Mental Health (excluding psycho geriatrics)	15	9	9	5	5	5	-67%
Psycho geriatrics	18	18	18	18	18	18	0%
Rehabilitation (AT&R & other)	9	9	9	12	12	12	33%
Neonatal/ NICU	2	2	2	3	3	3	50%
Surgical Day Case (Greymouth)	8	8	8	8	8	8	0%
Primary GP beds (Buller)	8	8	8	8	8	8	0%
Primary Maternity beds (Buller)	2	2	2	2	2	2	0%
Primary GP beds (Reefton)	5	5	5	5	5	5	0%
Psycho geriatric AT&R (Greymouth)	4	4	4	4	4	4	0%
Aged Care Rest home (Buller)	22	4	4	4	4	4	-82%
Aged Care Hospital Level (Buller)	17	17	17	0	0	0	-100%
Aged Care Rest home (Reefton)	4	4	4	0	0	0	-100%
Aged Care Rest home (Buller)	4	4	4	4	4	4	0%
Total	**171**	**147**	**147**	**124**	**124**	**124**	**-27%**

3.4.5 Theatre Numbers and Electives

Based on the Elective caseweight of 2200 per annum there is no requirement to increase the number of operating theatres beyond the existing three.

3.4.6 Other Demand Issues

The following demand management issues identified in the 2005 Asset Management Plan are still valid:

- Irrespective of the final planning options for the greater Grey Base Hospital, best clinical practice (and the need to maintain 24×7 service provision) suggests the need to collocate Grey Base Hospital's A&E, CCU and paediatrics units in a high dependency unit to reduce clinical risk and staff inefficiencies. This is not possible in the current facility due to the inability to gain building consent without first addressing the seismic issue.

- The increase in tourism, the high prevalence of motor vehicle accidents, and the increased development of the mining industry could lead to an increase in A&E patients.

- Advancements to surgical instrumentation and the introduction of new surgical services, and increased surgical volumes will impact on the capacity currently provided by the CSD service.

- Due to the length of travel required to receive secondary services, day case patients often need to be accommodated overnight.

- The increasing proportion of the population over the age of 65 years will increase the demand for AT&R inpatient, outpatient and domiciliary services. Medical bed demand is likely to increase with longer lengths of stay required and an increasing number of older people admitted.

- An increase in demand for radiology services will likely require the reconfiguration of the existing department to enhance workflows and achieve health, safety, and privacy standards.

3.4.7 Impact on Hospital Space & Assets

The impact on space and assets (facilities and equipment) are discussed in Sections 4 and 5. Table 3.7 summarises the associated capital intentions.

Table 3.7 Impact on Hospital Space and Assets

Project / Capital Request Name	Service Justification (%)				Capital Investment	
	Driven by demographic changes	Driven by health service changes	Driven by req. from exist. assets	Total Percent	Estimated cost $000	Year of First Spend
Oral Health - school based dental buildings		25%	75%	100%	$1,300	2009-10
Franz Joseph Clinic	25%		75%	100%	$700	2009-10
Reefton Hospital		20%	80%	100%	$3,900	2010-11
Dobson Clinic			100%	100%	$350	2010-11
Haast Clinic			100%	100%	$400	2011-12
Buller Hospital			100%	100%	$16,300	2012-13
Buller Hospital Aged Care if not done privately	20%	20%	60%	100%	$20,000	2012-13
Grey Base Hospital			100%	100%	$110,000	2013-14
Moana Clinic	30%		70%	100%	$400	2013-14
Hari Hari Clinic			100%	100%	$400	2015-16
Whataroa Clinic			100%	100%	$500	2017-18
Karamea Clinic			100%	100%	$400	2019-20

4 Challenges and Investments

4.1 Overview

As documented in the 2008-2009 District Annual Plan, West Coast is considered as the most socio-economically deprived population in the country. The combination of a large geographical area, sparse population, rugged and isolated areas, high deprivation, and low socio-economic status contributes to the difficulty and expensive of delivering public and personal health service delivery. In particular, the small and dispersed population of the West Coast is often not sufficient to make the operation of secondary level health services economically viable. In general, secondary health services need a minimum capacity for safe and effective 24/7 operation. This minimum capacity exceeds the level required to meet the West Coast elective service demand and the level for which the West Coast District Health Board receives government funding. The Secondary Care Plan 2007 noted that many of the physical facilities were built and configured to deliver a very different model of care from that proposed for the future and in some cases what is being delivered currently. This is further discussed in the following sections.

This problem is further exacerbated by the isolation of the West Coast from other centres providing secondary and tertiary level care. Access to health care services is noted to be a particular issue for those living in the more rural areas without a car due to the lack of a public transport network on the West Coast. Access to care becomes particularly expensive for many West Coasters when the extra travel costs of getting to the general practice or a secondary care centre are taken into consideration.

Seismic compliance issues as discussed in section 2.5 also pose a major challenge for West Coast District Health Board as the Grey Base Hospital facilities do not meet minimum compliance standards and so are effectively “unsafe”. The issue is aggravated by the fact that this is the only secondary hospital within the district and if not addressed it has the potential to compromise viability of secondary health services. Engineering advice suggests that it is more cost-effective to replace several of the buildings on site than to upgrade and strengthen them.

The current service mix and configuration is no longer clinically or financially sustainable as discussed in the previous sections. Current challenges or shortfalls determined from a gap analysis between what is needed and what is currently provided are well documented in various reports produced as part of the sustainability project. This section will highlight the key issues identified from an asset management perspective.

4.2 Shortfalls – Service Needs

4.2.1 Grey Base Hospital

The configuration issues associated with the Grey Base Hospital as submitted in the business case are outlined below:

- Critical after hours services (those where there is a likelihood of a patient requiring resuscitation) are spread across the hospital site with a Critical Care Unit (CCU), Paediatrics and Accident and Emergency Services effectively in three different corners of the hospital site. This makes it both inefficient in terms of its staffing costs and potentially unsafe in terms of the ability for specialist resuscitation staff to back one-another up in an unexpected event.
- Medical and surgical services are located on different floors, making it difficult to adjust bed numbers or staff numbers between these services in the case of a crisis or as a response to changing patient demand. These services cannot easily be changed in order to be co-located

or integrated with one-another, partly because most of the ward areas of the hospital are on the second or third storey which increases significantly the cost of extending or changing the layout. The non-compliance to seismic standards of the building is an additional issue which the District Health Board is currently addressing.

- As the owner of a number of primary health practices on the Coast, the West Coast District Health Board is unable to realise service improvements and efficiencies through the close integration of primary health and secondary care services in Greymouth. This is a result of the primary health practice being physically separated from the Grey Base Hospital facility. It is also located in a building with a short term lease, making any improvements difficult to justify.
- There is no more space available on the current Grey Base Hospital facility site to accommodate any primary health practices, including office accommodation that is currently provided in leased office space. The issue is made worse by the fact that West Coast District Health Board cannot currently use all of the bed spaces available in Grey Base Hospital and the extra space cannot be easily re-configured into office space without negatively impacting on clinical service delivery.

The design and infrastructure issues associated with the Grey Base Hospital include:

- Grey Base Hospital contains a number of critical post-disaster services when the Government updated the Building Act In 2004, dramatically changing the structural (seismic) requirements for buildings that serve a post disaster function (including medical facilities). This non-compliance issue is further exacerbated with most of the buildings on the site failing seismic requirements even for buildings which do not have a specific post disaster function (Level 1 & 2).

Visible cracks in the water tank which acts as Grey Base Hospital's emergency water supply

- There are fundamental structural issues with the original hospital design of a flat roof with internal guttering situated in an area that is known to experience heavy rainfall. Over time, the Butynol surface on the roof leaks and the flat concrete surface under the Butynol make it near impossible to find the actual source of the leaks.

An example of Grey Base Hospitals flat roof.

- Many of the service ducts through the building contain electrical and IT services, alongside water reticulation, steam reticulation and internal guttering, a situation that dramatically increases the impact of what might otherwise be a minor water or steam leak. There is only one water supply into the site, an old (so potentially brittle) asbestos pipe that runs under the railway line. There is also only one electricity supply though the immediate risk had been mitigated by installing a new emergency generator.

Main service duct. IT and electrical services are at risk in the case of a pipe leak.

- Electrical services for the whole facility are due for a major review and upgrade after an electrical fire that occurred in one of the main switchboards in the 1990s

Burn marks on the electrical switch which feeds the current theatre block

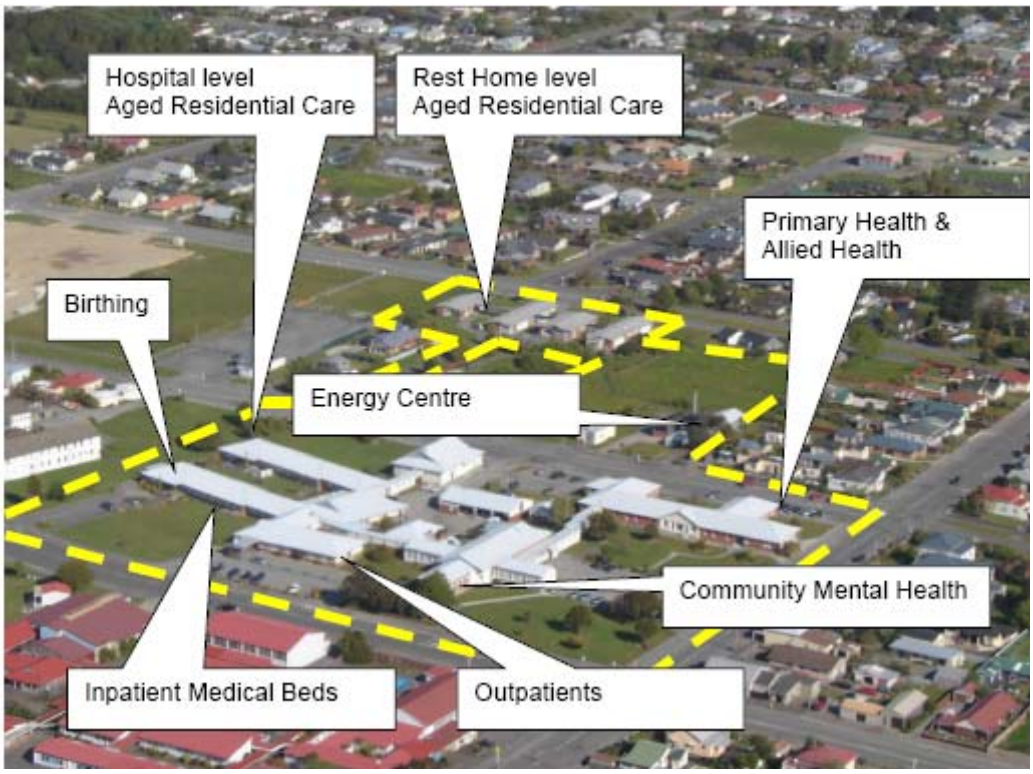
- Parts of the facility still contain encapsulated asbestos.

Black polythene on the basement floor is in place in order to encapsulate asbestos.

4.2.2 Buller Hospital

The configuration issues associated with the Buller Hospital include:

- The current facility occupies three different partially adjacent sites spread over two adjacent blocks in Westport. The main site can be described as a combination of different buildings (all of different ages and with different issues), interconnected by a series of corridors. There are 31 different entrances which represents a security issue, especially at night. This configuration significantly reduces the effectiveness of the integrated staffing model and integrated model of care for Buller Health, and does not allow for the co-location of Primary Health Organisations and inpatient medical beds.



- The two aged residential care services (Hospital level and Rest Home level) operate as the one service. They are physically spread over two blocks and separated by a road that floods during high rainfall.
- The facility is poorly configured because the radiology facility (which has one general X-ray unit) is physically separated from the emergency department and inpatient medical ward.

The design and infrastructure issues associated with Buller Hospital include:

- Large portions of the site lack adequate fire protection.

- None of the buildings meet the required seismic standards for non-post disaster buildings (though some can be strengthened

An example of a building with severe structural flaws (PABX / IT Building)

▪ Parts of the site flood during periods of high rainfall or during extreme high tides.	
▪ Most of the Buildings on the site have Asbestos Roofing	
▪ Some of the services infrastructure is aged and due for replacement	 A corroded and leaking hot water pipe (under Foote Ward)

4.2.3 Rural Clinics

West Coast District Health Board is already engaged in a process of systematically upgrading its rural clinics.

Specific issues related to rural clinics include:

- Clinic rooms are small and poorly configured.
- There are no dedicated patient waiting areas and no space for children to play while waiting.
- In many facilities there are no dedicated staff toilets meaning staff and patients often share toilets. In some cases clinics share toilets with other services within community centres and in many cases toilets are not configured for accessible access.
- There are no dedicated ambulance access and no dedicated treatment rooms.
- Some clinics have recently failed infection control audits and fire safety audits.

4.3 Current Funded Programmes

The last major service reconfiguration was the closure of the 130+ year old Seaview Psychiatric Hospital site and relocation of West Coast District Health Board's specialist dementia service to a new purpose built Dementia Unit in Greymouth (November 2007).

The currently funded programmes as identified in the 2009 District Annual Plan and Capital Intentions spreadsheets are baseline capital expenditure. Other strategic projects are currently in the process of obtaining Ministry approval for funding.

4.4 Responses to Significant Known Challenges

Both services and infrastructure areas require significant change to ensure clinically safe and sustainable services are developed and maintained. These are categorised into seven key areas as defined in the scope of the sustainability project. The section will highlight some of asset related issues that need to be addressed by the District Health Board as a result of existing service gaps or projected shortfalls:

- Change of strategic emphasis to having home and community care as the nucleus, supported by hospital based and emergency care.
- Increase upstream investment in health promotion, home and community care over time through planned efficiencies and disinvestment in some hospital based care.
- A sustainable after hours service.
- Provide more outreach services.
- Shift the emphasis for mental health services from hospital based to community based, in line with international practice and evidence.

- Reduce the number of inpatient acute beds in line with Government benchmarks and increase the number of community acute beds, supported by changes in community staffing and practice.

- Collaborate with other District Health Boards mainly Canterbury and Nelson Marlborough, to establish clinical networks and shared resources to keep the range of services on the Coast.

- Increase the use of information technology options.

- Develop a planned approach to travel and accommodation for patients and clinicians.

- Improve facilities to allow for better patient flow and efficiencies in work practice and rostering.

- Develop and utilise agreed care pathways for common conditions for use across community/primary care and hospital care.

- Address the sustainability of specialist acute surgical, obstetrics and medical health services on the West Coast including the option of availability within limited hours and days, for example 24/4 or 24/5. Also to address who should provide services and where they can be provided safely and within required standards.

- Neighbouring District Health Boards may be able to send or offer their patients the choice of elective surgery at West Coast District Health Board for the level of services they don't routinely provide or where they have long waiting lists.

The future model of care for the West Coast considers the complete continuum of services and support for the West Coast population. In summary it will strive to provide as many services as close to the population as possible. Many of the required changes are about how planning and service delivery are undertaken and require a joint sub-regional District Health Board approach, particularly for most secondary and all tertiary services. There will be a shift in approach to move to home and community based (including primary) services being the nucleus of care supported by strong hospital based and emergency care. There will be a change in the way services are organised including the consideration of some surgical services (both acute and elective) being only available for 24/4 or 24/5 on the Coast with planned back up and alternative arrangements. Core to the model of care are partnership approaches with the community to improve prevention and the ability for people to self manage some of their care.

The following Rural Model of Care Themes was developed to reflect international literature and local solutions.

- Supporting people to maintain their own health and functioning.
- Community based care is the nucleus, including regulated and non regulated workers, supported by robust guidelines and protocols, specialist and emergency care.
- Generalist skills and flexible ways of working with appropriate support from specialists.
- Integration and central coordination of care and support across a range of points on the continuum of care, and more use of interdisciplinary teams.
- Outreach and mobile services.
- Appropriate use of information technology, including tele presence – internet and telemedicine, and shared electronic health records..

- Inter-disciplinary teamwork and collaboration across professional groups and provider organisations.
- Utilisation of joint training, clinical supervision and well defined scopes of practice, infrastructure and skill sets to support the other themes.
- Greater partnerships and collaboration in planning, service delivery and funding models within the West Coast and across the sub-regional District Health Board group.

Considering the above themes and issues discussed in the previous sections, master planning objectives used for the proposed redevelopment for the Grey Base Hospital included:

- Co-locate critical medical services (those where there is a likelihood of patient resuscitation in order to allow specialist resuscitation trained nurses to be co-located in order to support one-another in the case of an emergency).
- Co-locate all wards in a way that allows bed numbers to flex between services based on patient demand.
- Co-locate all after hours services so that they share the same entrance for ease of access and security at night.
- Allow for the collocation and integration of primary health services into the Grey Base Hospital site, key integration points for primary health include proximity to Outpatients (for shared clinic space), the emergency department (for redirection of inappropriate emergency department attendances), diagnostic services and a cafeteria.
- Where possible, those buildings which meet current seismic requirements should be retained and integrated into the new facility.
- Those services which serve a specific post-disaster function will need to be collocated in a purpose built post-disaster centre, in line with current seismic requirements.
- Any related buildings will need to be bought up to at least 33% of the building act requirement for a non-post disaster facility.
- The primary health portion of the facility needs to be able to expand if other practices choose to join it or as West Coast District Health Board's model of care becomes more weighted towards early healthy intervention and primary health.
- Any other services which have uncertainty about future technological development or future demand need to be able to expand or contract in order to meet future models of care and changing future demand.

Figure 4.1below represents the service relationships and co-location objectives for the Grey Base Hospital Site.

Figure 4.1 Grey Hospital – Outline Element Relationship Diagram
(Source: Proposed Redevelopment of Grey Base Hospital Aug 2008)

Similarly, specific master planning objectives used for the proposed redevelopment of Buller Health include:

- Co-locate and integrate medical inpatient and primary health services as closely as practicable.
- Allow for the co-location and integration of aged residential care services with primary health and inpatient medical services, should West Coast District Health Board continue to provide them.
- Allow for the co-location and integration of adult dental services onto the Buller Health site.
- Allow for the co-location and integration of child and adolescent dental services onto the Buller Health site.
- Retain St John on the Buller Health site but in a new facility that they will fundraise for and build.
- Have one single, clearly defined entrance for both emergency and primary health services (no wrong door).
- Meet seismic structural requirements, including having the emergency department meet the requirement for a post disaster functions.

Figure 4.2below shows the services relations ship diagram that has been developed for the Buller site.

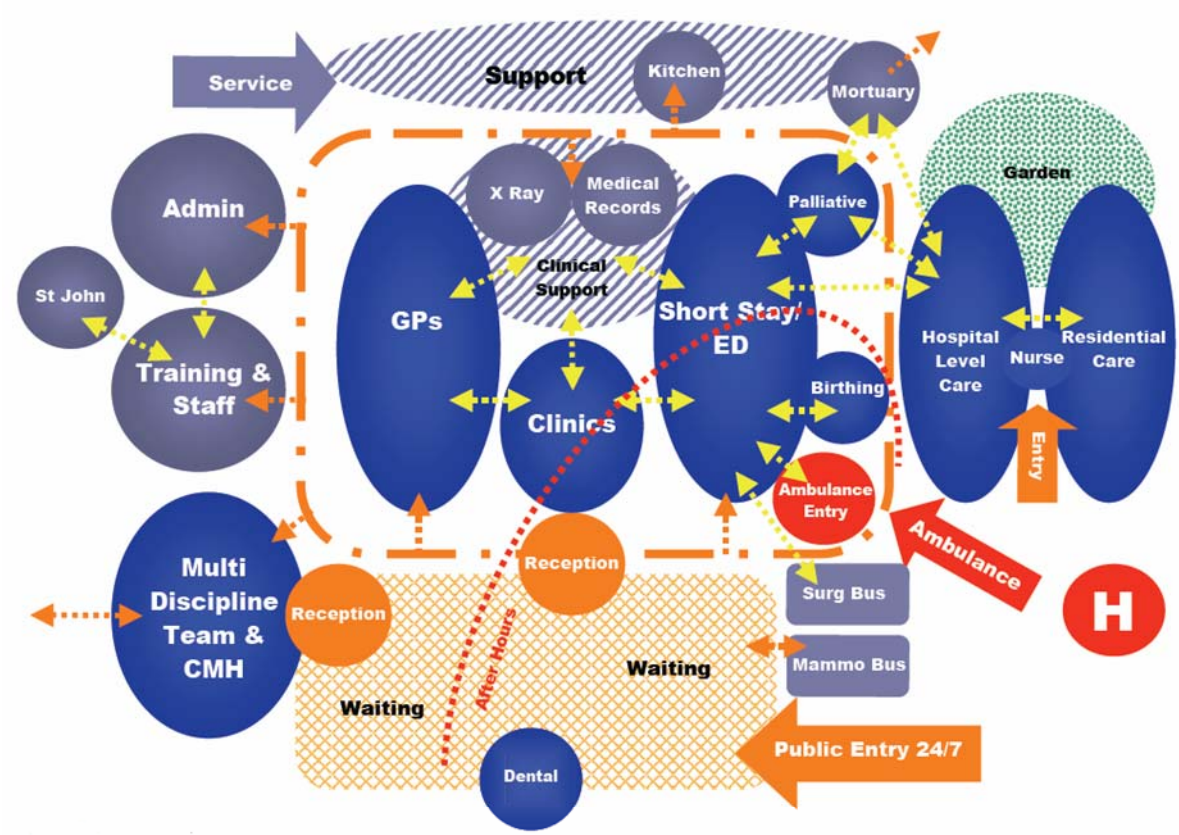


Figure 4.2 Buller Hospital – Outline Element Relationship Diagram
(Source: Proposed redevelopment of Buller Health Aug.2008)

4.4.1 Major Facilities Upgrade

West Coast District Health Board is in a process of systematically upgrading all of its health facilities that have been neglected for years due to funding difficulties as a result of the 1993 health reforms. Key strategic projects to be implemented over the next few years are detailed in Table 4.1.

Table 4.1 Major Capital Projects			
Year	**Project**	**Cost**	**Description**
2009/10	Child and Adolescent Oral Health	$1.3 mill	The West Coast District Health Board is planning to reconfigure the child (school-based) oral health facilities in order to better suit changing models of care and the health needs of the West Coast population. The focus is on replacing the current mobile treatment unit, which does not meet health and safety requirements and is past its useful lifespan. Phase two of the business case provides options for increased use of mobile facilities, closure of all school-based clinics, the development of dental hubs, an increase in the number of dental assistants and more collegial working relationships for dental therapists. A business case for this project has been submitted to the Ministry of Health. Approval for phase two of the project has yet to be received.
2013/14	Grey Base Hospital Redevelopment	$110 mil	The West Coast District Health Board is planning to reconfigure the Grey Base Hospital facilities in order to better suit changing models of care and the changing health needs of the West Coast population as part of the joint Ministry Sustainability Project.
2010/11	Reefton Hospital Reconfiguration	$3.9 mill	Pending on the decision for the Grey Base Hospital a reconfiguration of Reefton Hospital, to meet the future service delivery needs of the Reefton community is planned for 2010/11.
2012/13	Westport Hospital Reconfiguration	$16.3 mill	Pending on the decision for the Grey Base Hospital, a reconfiguration of Westport Hospital, to meet the future service delivery needs of the Buller community, is planned for 2012/13.

These projects and the service changes they bring about will help to provide a sustainable basis for the ongoing management of the District Health Board's resources both now and into the future. (refer Appendix for business cases).

These projects are dependant on scarce Government funding which is known to be oversubscribed. West Coast District Health Board recognises the need to seek and develop options for these major developments that aren't so dependant on scarce Government funding, but has thus far been unable to identify alternate options that meet this objective.

4.4.2 Primary Health Facilities

West Coast District Health Board has implemented a systematic program of replacing or upgrading primary health and rural nursing facilities. In the last few years Buller Medical, Fox Clinic, Greymouth Medical (temporary location) and Ngakawau Clinic have been either been upgraded or refurbished. Planning for the Franz Josef is currently in progress. Dobson, Haast and Moana are the next three clinics in terms of urgency, followed by Hari Hari, Whataroa and Karamea as detailed in Table 4.2

Table 4-2 Primary Health Facilities Projects

Year	Project	Cost	Status
2009/10	Franz Joseph Clinic	$0.7 mill	Detail Planning in progress
2010/11	Dobson	$0.35 mill	Preliminary assessment completed
2011/12	Haast	$0.4 mill	
2013/14	Moana Clinic	$0.4 mill	Detail Planning in progress
2015/16	Hari Hari	$0.4 mill	Preliminary assessment completed
2017/18	Whataroa	$0.5 mill	Preliminary assessment completed
2019/20	Karamea	$0.4 mill	Preliminary assessment completed

4.4.3 Information Technology

West Coast District Health Boards Health Information Strategy is centred on the integration of two core health information systems, iSOFT (for secondary care) and Medtech (for primary care) into one integrated electronic health record. Other strategies include improving data quality and supporting clinical processes through the uptake of new technologies such as PACS and telemedicine. Recent achievements since 2007 and future projects included in the capital intentions for this Asset Management Plan are summarised below.

- Te Tai Poutini Maori Health PrISM implementation has been completed where Rata Te Awhina Trust now uses West Coast District Health Board's PrISM system.
- The iSOFT forms toolkit has now been implemented.
- There is now secure email between Canterbury District Health Board and West Coast District Health Board. This has reduced the time it takes for organizing a clinic from Canterbury District Health Board, (e.g. respiratory, haematology, urology) from 7 days to 2 days or less.
- West Coast District Health Board is one of two District Health Boards leading the country with the Ministry of Health mental health outcomes data collection system known as PrIMHED.
- Intranet and internet sites have been upgraded.
- A New Zealand pilot for a system that integrates the microsoft outlook calendar and the iSOFT patient management system diary was implemented that allow clinical staff to manage their diaries from one location, rather than several different systems.
- A primary / secondary information integration strategy group was established with representation from the Primary Health Organisation, Planning and Funding, District Health Board provider arm and some clinicians. This group has only had a couple of meetings to date, with the following outcomes;
    - Westland Medical was receptive to the migration onto a Medtech system if there is adequate funding provided.
    - A potential trial of bed side data entry technology was implemented using tablet computers in Accident & Emergency, to convert hand written notes directly into the

electronic health record via the iSOFT forms toolkit (so that this information becomes available to primary health practitioners on discharge).

- Privacy processes are currently being reviewed in order to make primary health data (potentially from any West Coast Provider) available to secondary care (including direct access to Medtech by emergency department staff).

A number of other projects were undertaken that were not included in the Health Information Strategy.

- The implementation of a multi-slice CT scanner (integrated into the PACS system).
- The implementation of a new laboratory interface system. Histology results from Canterbury District Health Board are now available within HealthViews (the clinical information system.
- Computers have been installed in the Dementia Unit and the West Coast Primary Health Organisation's office including the upgrades of meeting rooms and implementation of staff training technology throughout the organisation (there are new projector units into most District Health Board meeting rooms).

The implementation of the E-Referrals and Financial/Procurement FMIS is earmarked for 2009/10 capital intentions. There are a number of other key projects on the immediate horizon that are included as part of baseline capex and operational expenses.

- The implementation of a single electronic health record (EHR), by closely integrating the two main health information systems (iSOFT and Medtech).
- The development of patient consent and related privacy processes for the sharing of patient information between primary health and secondary care (and also potentially between different primary health providers).
- The implementation of a number of functionality enhancements planned for PACS, HealthViews, the iSOFT patient management system (iPM) and the IT Helpdesk System.
- Conduct a major review of disaster recovery and IT service continuity planning.
- Working directly with CISCO and the Ministry of Health on a potential world first trial of CISCO's Health Presence System, which couples high quality video conferencing with medical telemetry (network enabled medical devices such as ECG, electronic stethoscopes, blood gas and vital sign monitoring).
- Replacement of the laboratory system due to its age and related performance issues.

5 Assessment of Significant Capital Intentions

5.1 Overview

The significant capital intentions identified in this Asset Management Plan are:

- Major Facilities
- Primary Health Facilities
- Staff Accommodation
- Major Clinical equipment

5.1.1 Major Facilities

The Grey Base Hospital Redevelopment is the largest of the three remaining major facilities projects (after the 2007 Dementia Unit Project) requiring National Capital Committee funding and approval. The other is the Buller Health Project and Reefton Health Project which will be summarised in the following sections.

5.1.1..1. Grey Base Hospital Redevelopment

Approximately 21,000 of the West Coast's 31,000 population live within 1 hour of Grey Base Hospital. 28,000 live within 1 ½ hours of it. Access to alternative hospitals with acute surgical capability (Nelson, Blenheim or Christchurch) involves transporting acutely unwell patients over treacherous alpine passes, which can be closed to air and road transport during periods of bad weather. Retrieval to an alternative hospital by air ambulance generally takes 4-5 hours. Road transfers can take twice as long (assuming that a plane or a road ambulance is available at the time of the call).

Primary Health Intergration

A central plank of West Coast District Health Boards preferred future model of care is the seamless integration of health services across the full continuum of care. This is reflected in facilities plans in the form of an integrated primary health centre which is to be attached to the secondary services portion of the proposed Grey Base Hospital redevelopment. It will be located and designed in such a way that it is "user friendly", does not appear hospital focused, is a first point of contact visually for patients, and is readily accessible by the main route and entrance to the whole facility. The reasons for this relate to improved care for patients, improved sharing of scarce resources, and improved efficiency.

Improved Care

- Patient pathways, referral processes, etc, can be streamlined, as all services will be co-located on the one site. For instance, a triage nurse can assess patients as to the appropriate place of treatment (primary health or the emergency department).
- The primary facility can be utilised for after hours care provision and will be easy for patients to locate as well as being safer for lone primary clinicians.

- Primary health clinicians and patients have easy access to laboratory and radiology services (one stop shop). Pharmacy services both dispensing and educational may be able to be collocated with the primary health service.
- Close proximity to community health services (e.g. district nursing, allied health, etc) will improve intra professional communication and multi disciplinary health care management.
- The hospital land is centrally located easy to find and easily accessible, reducing the capital cost that would otherwise be required for a separately located primary health centre.

Sharing of Scarce Resources

- There is an opportunity for strengthening peer support through "corridor" conversations with hospital based colleagues through shared café, amenities and work space.
- The primary health and secondary care staff can share training sessions, facilities and opportunities within close location. Primary health clinicians and other staff would feel more collegially supported and less isolated.
- There can be shared clinical resources which flex between services, as demand requires.

Efficiencies

- The practice(s) and other primary clinical functions can share scarce administrative resource under one roof. For example, rooms could be set aside for local and visiting Non Government Organisation consultations e.g. podiatrist, primary and secondary mental health, etc. The primary health service would have ready access to outpatient clinics and improved access to visiting specialists.
- The co-location of primary centre facilitates and enables accident and emergency staff to direct triage 4 and 5 patients to the more appropriate service. The arrangement would go a long way to address the presentation of triage 4 and 5 patients to A & E and after hours issues currently being experienced.
- There is opportunity to extend the primary care facility, and include retail outlets and other primary health practices (at retail leasing rates) at some future date.

Model of Care for Secondary Care Services

There are three key model of care options that have been developed and analysed for secondary care components of Grey Base Hospital summarised as follows:

Option 1: As close to the patient as possible

Integrated services delivered collaboratively as close to the patient as possible as a rural centre of excellent for health services, supported by a comprehensive sub regional approach.

Option 2: Low complexity services on the Coast

Low complexity services, supported by specialist emergency services and some visiting specialists, delivered collaboratively on the Coast by sub regional arrangements, with stabilise and transfer all others to other District Health Boards.

Option 3: Rural outpost

Only low complexity services planned for on the Coast, with heavy reliance on other District Health Boards off the Coast.

These options all involve continued provision of a secondary care level emergency department, radiology, internal medicine service, high dependency unit, AT & R, mental health services, specialist dementia services, allied health and outpatient services, but vary in the location in which or the way in which acute surgical services are provided. Capital costs are estimated at between $70 and 110 million.

Option 3 has been ruled out completely as the patient health outcomes were considered to be unacceptable as it involves a deliberate decision not to build the capacity to cope with the range of acute surgical interventions that the West Coast population currently requires. There has been significant work undertaken to identify and analyse infrastructure requirements for options 1 and 2 on the Grey Base hospital site.

Identification of Efficiencies

West Coast District Health Board is still working through a detailed financial modelling process to determine all of the potential cost savings and efficiencies. Currently $1.25 million of operational savings have been identified for the Greenfield and Brownfield facilities options, when compared against the status quo.

The District Health Board initially identified a $87M brownfield option as its preferred business case option, however this has been swapped for a $110 greenfield option following an independent evaluation of the options presented in the business case.

5.1.1..2. Buller Health Project

Description

This project involves the construction of a 12 bed primary care hospital (8-10 inpatient medical beds and a 2-4 bed birthing unit), which is to be co-located with a 12 clinic General Practitioner practice. The project also involves relocation of allied health and community mental health services into vacated facilities (which may need some seismic work) and assumes that West Coast District Health Board exits the provision of aged residential care services in Westport (a process is already under way for this).

There is a second option that involves the retention of aged residential care services on the site (and therefore increased capital cost) ideally integrated with those aged residential care services that are provided by another Westport based aged residential care provider, thereby leading to additional savings in the form of reduced duplication of facilities costs, kitchens costs and some nursing efficiencies, on top of those anticipated by the original proposal outlined above.

The District Health Board will explore both of these options in detail before finally deciding which proposal to progress. It may be possible to use a public / private partnership to fund the additional capital cost related to this second option.

5.1.1..3. Reefton Health Project

Description

This project involves the reconfiguration of the existing Reefton hospital facility in order to create and integrated 15 bed community hospital providing aged residential care, inpatient medical beds and an integrated General Practitioner practice. West Coast District Health Board is not seeking NCC funding for this project.

5.1.2 Primary Health Facilities

West Coast District Health Board is engaged in a systematic program of replacing or upgrading of its primary health and rural nursing facilities. This approach is reflected in the current capital intentions which also support the existing model of care priorities and the need to ensure accessibility of health services.

5.1.3 Staff Accommodation

West Coast District Health Board owns and leases a number of houses and flats which it either leases to or makes available as staff accommodation on a temporary or long term basis. Many of these facilities are due for upgrades as maintenance has been delayed for a number of years.

West Coast District Health Board is currently evaluating options for the provision of staff accommodation, including a strategy for the refurbishment of existing buildings and potentially acquisition or construction of new facilities. The District Health Board is also evaluating the benefits of owning compared to renting the facilities.

5.1.4 Equipment Renewal

Radiology and theatre equipment are significant items within West Coast District Health Board's internally funded capital expenditure. A renewals profile for equipment in general across all hospitals is provided in Figure 5.1 below. Although these figures need to be refined, the figure provides an indication of the possible investment required to renew clinical equipment. Some of this equipment is fixed in nature and so replacement may need to coincide with facilities redevelopment projects.

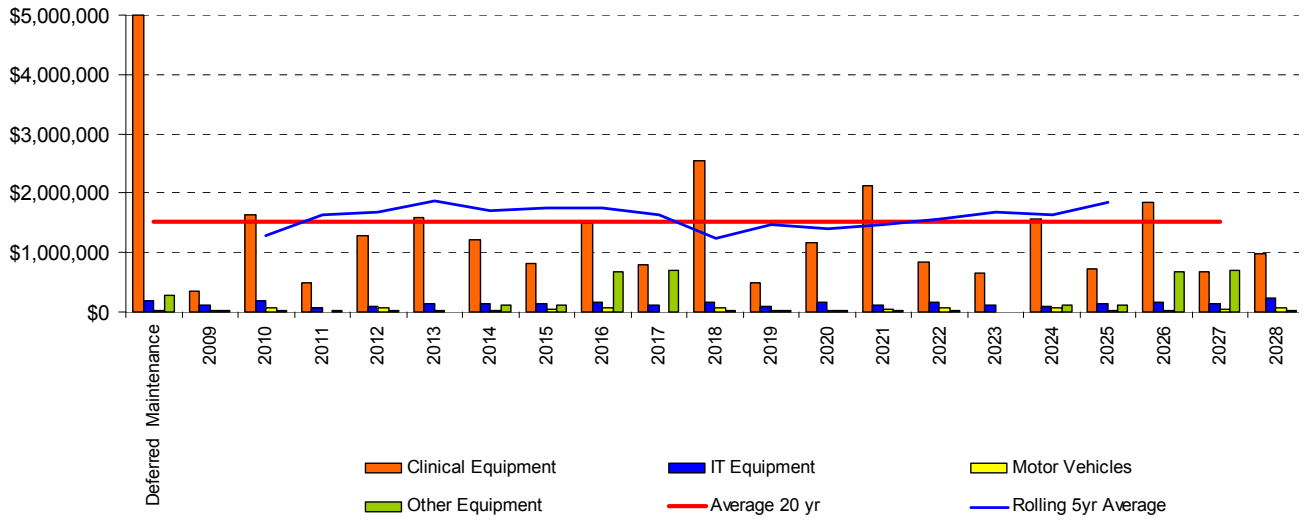


Figure 5.1 Equipment Renewals profile for all hospitals

5.2 Likelihood of Events Happening

A significant portion of the higher level acute and all tertiary West Coast health needs are already met through collaborative arrangements with Canterbury and Nelson Marlborough District Health Boards. This includes the provision of outpatient clinics on the West Coast by clinicians employed by other District Health Boards and referral of a number of medical surgical patients for treatment by Canterbury and Nelson Marlborough District Health Boards.

Under the proposed model of care the following broad changes will occur:

- For the most part, direct patient referrals (and resulting Inter District Flows) from West Coast District Health Board would remain unaltered, but planned for in a partnership model with back up arrangements.

- There will be reduced surgical capacity available on the West Coast during weekends and so West Coast District Health Board as part of the sub regional District Health Board collective arrangements will be reliant on other District Health Boards to provide cover (either at West Coast Health Board or from their District Health Board).

- As there may be times when transfers off the Coast cannot be undertaken, a back-up arrangement would have to be in place to ensure patient safety.

- Day surgery volumes could potentially be increased (perhaps with volumes from other District Health Boardss) without increasing the bed capacity requirement in Greymouth.

It is predicted that West Coast District Health Board's ability to provide secondary care services will continue to deteriorate if the Grey Base Hospital project does not proceed as planned. This could result in up to 7,000 patients per annum requiring services from other hospitals under a stabilise and transfer model, necessitating investment in new transport, accommodation infrastructure as well as a significant investment in health service infrastructure both on the West Coast (the stabilisation facility will need to be post-disaster compliant) and for receiving District Health Boards (refer Section 3.4). The costs of this model would be similar to the cost of providing a full functioning secondary health service on the West Coast.

Retaining Buller Health as it currently exists is not an option:

- The facility poses an extreme risk in the case of a seismic event due to the potential of liquefaction and a lack of internal bracing. Some of the older parts of the facility (currently in use) should actually be abandoned now in order to ensure staff safety.
- Large sections of the site do not meet current fire safety requirements; the main issue being that the sprinkler system does not cover the whole facility. Inpatient areas and the General Practitioner practice are adequately protected though.
- Portions of the site flood during periods of high rainfall.

At the very least, retaining the current facilities will require:

- Fire control system improvements (to minimum requirements).
- Improvements in security systems.
- Remove asbestos roofing and replace with conventional roofing.

- Strengthen buildings to 66% of the new building act • requirement for non-post disaster buildings.
- Painting and plastering to hide visible cracks and flaws in structure.
- Drainage improvements.

It is anticipated that the costs of alternative options (involving construction of a post disaster stabilisation centre on the West Coast and expanding or developing the facilities of a neighbouring District Health Board in order to cope with patient volumes from the West Coast, along with increased transport and accommodation costs) would be higher than the cost of this proposal.

However, it is acknowledged there will be high level risks identified for both projects such as:

- Vacation of some existing facilities in order to carry out seismic and fire upgrade work.
- Identification and attraction of providers for services that are to be exited.
- Need to ensure clinical signoff and buy in to building design and specifications and to changes to clinical practices resulting from the collocation of services.
- Management of the public expectation during the detailed design and construction process.
- Consent approval process / timeframe.

5.3 What controls can be put into place

The Approach

West Coast District Health Board will apply the Prince 2 project management methodology during project planning and implementation. It is anticipated the project will consist of several simultaneous work streams and that specialist members of the project team will be selected to manage each one as separate but interrelated sub-projects, each reporting to the overall project manager:

- ***Design and Construction Work Stream*** – All building design, construction, seismic compliance, fire compliance and any demolition work. This work stream will be split into sub-work streams for the detailed design of each major clinical area.
- ***Continuity of Service Work Stream*** – RFP, tender process and selection of providers and clinical handover for services being exited by the District Health Board. Planning and implementation of any temporary service arrangements in order to allow for construction activities.
- ***Clinical Integration Work Stream –*** Enhancement of the integrated service model for the provision of health services in Greymouth. (The clinical side of managing change and implementing new work practices).
- ***HR Management of Change Work Stream*** – Human resources planning and management of issues relating to the relocation and retention of selected staff and the redeployment or redundancy of others. (The business side of managing changes in staffing requirements).

Procurement Options

West Coast District Health Board will contract specialist project managers for the construction of Grey Base Hospital. This may result in the project being managed by the Canterbury District Health Board site development team or by independent contractors. Project management costs are included in the financial estimates in this report.

The project managers will then conduct a tender for architects and consultants for the detailed design, consents and construction phases of the project and then for construction contractors and the construction of the Hospital. This is a very large construction projects by West Coast standards so there is likely to be interest from contractors from Auckland, Wellington and Christchurch as well as contractors that are based on the West Coast.

Implementation Management

The construction process will be led by the project managers, with guidance from West Coast District Health Board's and Canterbury District Health Board's site development team. This will allow joint project management, skill transfer from Canterbury District Health Board to West Coast District Health Board, as well as realising benefits from the shared procurement of building fabric and furniture, fit out and equipment.

Maintaining Business as Usual

High level transition plans have been developed for each of the facilities options that were investigated. Each option is structured in a manner that allows a stepped approach whereby a new facility is prepared for each element of service delivery so that each service can be relocated before construction commences in the vicinity of the facility where a service was previously housed.

5.4 Prioritisation and Decision Making Process

West Coast District Health Board is committed to the delivery of health services required to meet the New Zealand Health and Disabilities Strategies through well planned construction and maintenance of high quality health facilities. By employing best practices in asset management, West Coast District Health Board will maximise functional and financial value of its capital assets through a robust and transparent framework for capital decision-making (prioritisation and approval).

Capital prioritisation and approval processes are one of the clearest examples of the conflict between an infinite list of wants and needs and a finite pool of limited financial resources. The objective of the process is to ensure that the limited funds that are available for capital expenditure are invested in the most appropriate of the infinite list of wants and needs, allowing the District Health Board to meet its health and safety, legislative, organisational continuation needs as well as any financial efficiencies that my be available.

Best practice is a two stage process, separating capital prioritisation from approval. The West Coast District Health Board uses a two phase process for capital prioritisation and approval. We also have a variation of the process to simplify the approval of minor capital expenditure items (within individual General Manager signing authority).

Phase 1 – Capital Prioritisation

Minor Items (under $10,000):

- Each General Manager has a set budget and they are required to manage their individual demand within this.

Major Items (Items over $10,000)

- Each General Manager works with their departmental managers, staff and clinicians to put together a wish list and to rank it from most urgent to least urgent. Lists for each department are then compiled and sorted by rank.

- As one General Manager's "priority one" item isn't equivalent to another's, items are prioritised in a group meeting, which includes executive managers, selected department heads and key clinicians, working from top to bottom of the list.

- The result is a prioritised list is then presented to the Board for approval.

Notes:

- If the important capital items cost more than plan, the less important capital items drop off the list. Conversely if the assets cost less (or don't get justified and approved), some of the less important capital items become affordable.

- If new items are introduced as contingency items, then the executive manager raising them has to identify items that they will withdraw from the list and/or how much of their under $10,000 funding they're foregoing in order to pay for it.

- This is only a process for prioritising a list of capital items to be investigated in more detail, and put forward for approval. Items that get to this stage appear to meet our organisational and clinical priorities (as determined jointly by management and clinicians) but have not been tested for cost effectiveness and feasibility. Implementation plans, funding for services and technical signoff (IT compatibility, compliance with health and safety and other regulatory requirements, etc) of the final proposal have not been progressed at this stage.

Phase 2 – Capital Approval

At the end of the prioritisation process, there is a prioritised list of capital items, which forms management’s priority list for investigation to justify and approve during the upcoming financial year. The individual items are not yet approved, although items on the list will generally be given priority in the capital approval process over items that are not.

The next stage, is to go through the list, item by item and to test them for cost effectiveness, feasibility, put together implementation plans, negotiate funding for services if the item is new to the District Health Board and get technical signoff for the proposal (IT compatibility, compliance with health and safety and other regulatory requirements, etc).

6 Financial Forecasts and Affordability

6.1 Overview

West Coast District Health Board has noted in this Asset Management Plan and various strategic documents that the District Health Board cannot afford to replace or reconfigure its Grey Base Hospital or Buller Health facilities without Government funding, including increased funding over and above the current Population Based Funding transition funding.

As a result, the West Coast District Health Board will need to carefully manage the affordability of (and prioritise) all of the future capital intentions in this Asset Management Plan. Table 6.1 lists the strategic capex identified in the next 3 years as included in Appendix D.

Table 6.1 Strategic Capex

Project	Year of Spend	Funding Source	Drivers	Status
Oral Health - school based dental caravans	2009-10	Ministry Approved Equity	Condition/Service Quality / Efficiency	Approved
New Finance System	2009-10	Internal Funding	Condition/Service Quality / Efficiency	Not yet approved
Reefton Hospital	2009-10	Health Capital Budget	Condition/Service Quality / Efficiency	Not yet approved
Franz Josef Clinic	2009-10	Internal Funding	Condition/Service Quality / Efficiency	Approved
Haast Clinic	2009-10	Internal Funding	Condition/Service Quality / Efficiency	Not yet approved
Buller Hospital	2009-10	Health Capital Budget	Condition/Service Quality / Efficiency	Not yet approved
Dobson Clinic	2010-11	Internal Funding	Condition/Service Quality / Efficiency	Not yet approved
Moana Clinic	2010-11	Internal Funding	Condition/Service Quality / Efficiency	Not yet approved
Grey Base Hospital	2010-11	See below	Condition/Service Quality / Efficiency	Not yet approved

This section summarises the data presented in the Capital Intentions Spreadsheet included in Appendix E.

Figure 6.1 illustrates the key drivers of capital expenditure over the next five years.

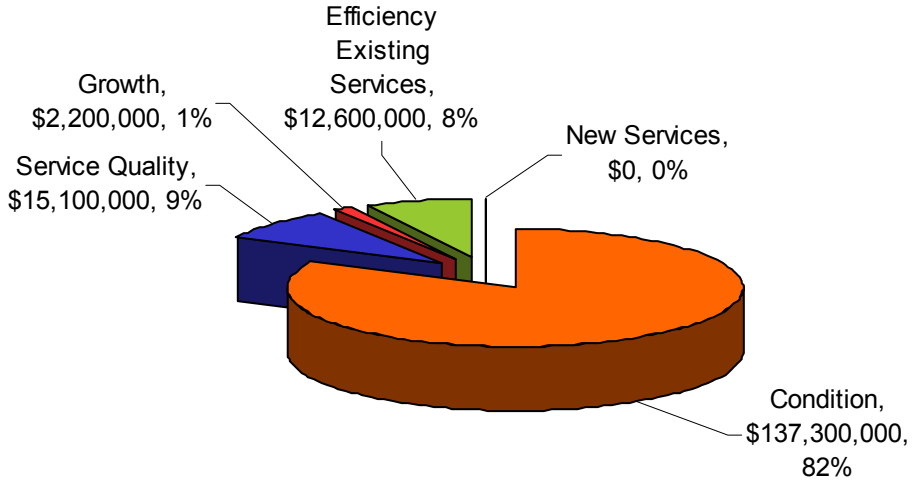


Figure 6.1 Key Drivers of Capital Expenditure (2009 - 2014)

Figure 6.2 illustrates the expenditure by asset type. Buildings and plant ($155m) and clinical equipment ($31m) makes up 85% of total capital expenditure indicated for the next 20 years.

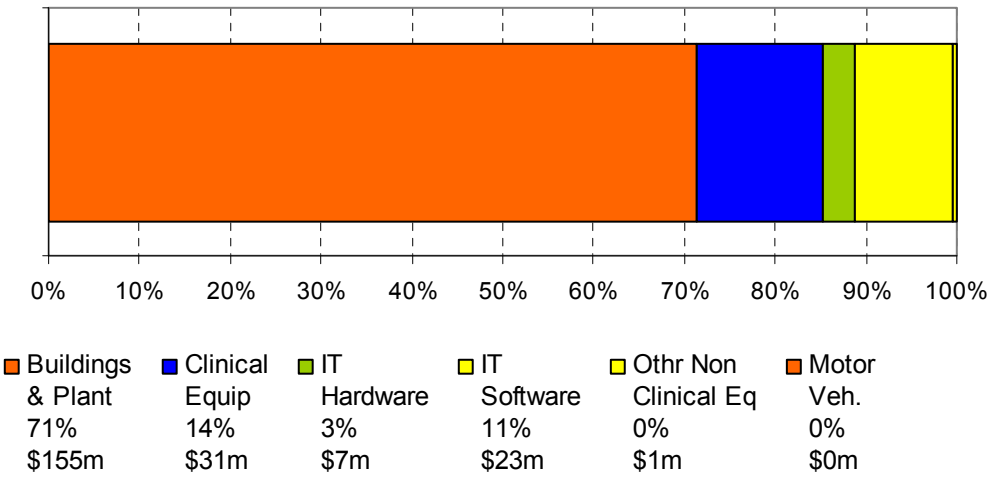


Figure 6.2 20 yr Expenditure by Asset Types

Figure 6.3 illustrates key expenditure drivers relate to upgrading existing assets to meet acceptable condition (78%), service quality (12%) and efficiency (8%) standards. Growth and new services account for just 1%. This is a reflection of the deferment of significant capital investment over many years created a situation where it is a major challenge for the District Health Board to meet population health needs current and future.

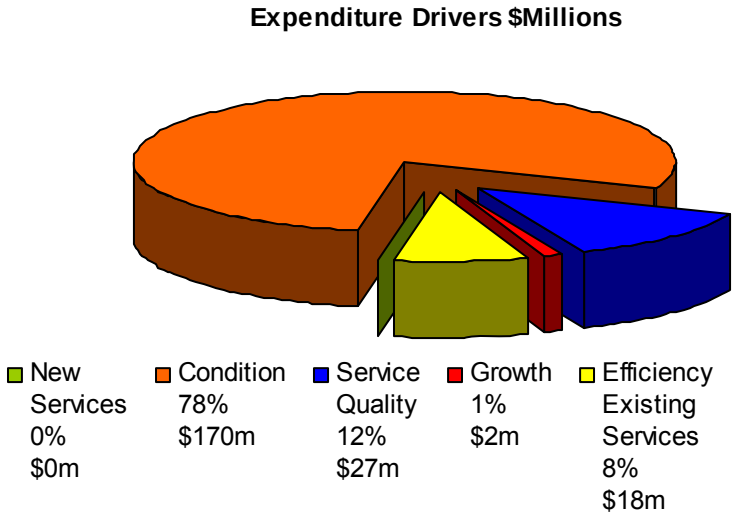


Figure 6.3 : 20 year expenditure by Drivers

West Coast District Health Board intends to internally fund most of the long term capital expenditure once external funding for the key projects highlighted in the Asset Management Plan is approved as shown in Figure 6.4.

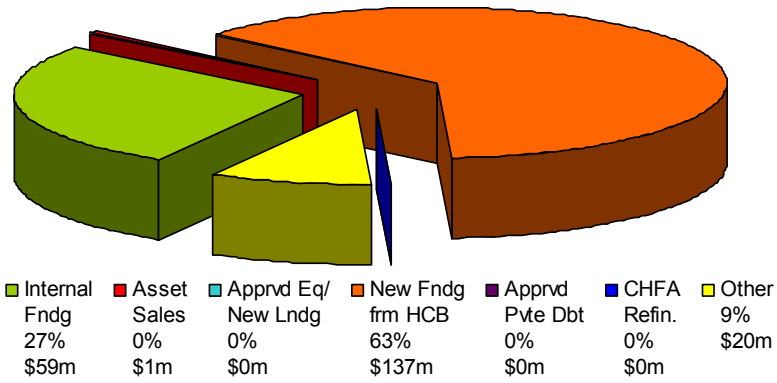


Figure 6.4 Funding Sources

6.2 Long Term Capital Forecasts

6.2.1 Baseline Capex

West Coast District Health Board has identified $52 million of baseline capex over the next 20 years to be funded internally. The allocated expenditure by asset class is presented in Figure 6.4. The majority of expenditure for the first 5 years relates to the planned upgrade of rural clinics and major equipment replacement.

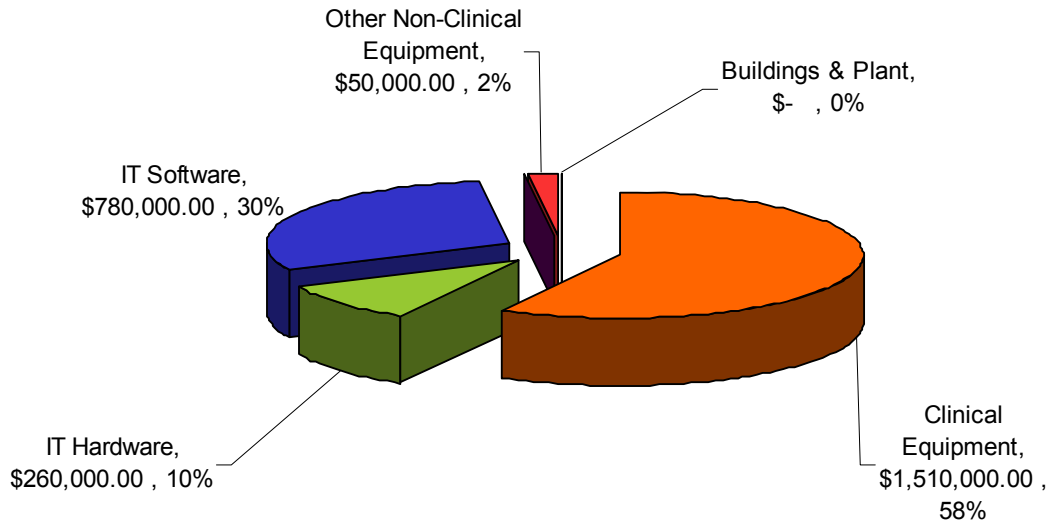


Figure 6.5 Baseline Capex Allocation By Asset Type

6.2.2 Strategic Capex

The District Health Board's ability to afford the proposed Grey Base Hospital and Buller Health projects is subject to the review of its funding, which is still being completed as part of the joint Ministry of Health / West Coast District Health Board Sustainability Project. The initial costing based on the preferred options are as follows:

The Grey Base Hospital

The capital cost for the Grey Base Hospital project is currently estimated to be $110 million. This will be funded by a mixture of debt and equity.

- West Coast District Health Board (Asset Sales) $ 1 million
- New funding from Health Capital Budget $109 million

Buller Health

The capital cost for the Buller Health project is currently estimated to be $16.3 million. This will be funded by new funding from the Health Capital Budget.

Under the current financial situation, West Coast District Health Board is unable to contribute to the capital cost of this project. The debt will be repaid by way of an amortised loan, spread over 40 years.

The project for Aged Care facilities has an estimated cost of $20 million. West Coast District Health Board is currently seeking alternative funding options, i.e. a private provider of this service.

Rural Clinics

Refurbishment and upgrading of rural clinics projects total $7.8 million. The majority of these refurbishments will be funded internally with the exception of Reefton Hospital upgrade which requires $3 million from the Health Capital Budget and $0.9 million of internal funds.

Other Projects

There are several projects scoped between years 2020 and 2028 (IT 2020, IT 2025 and IT Inter District Health Board integration) to address IT associated shortfalls. The estimated capital cost of these projects is $8 million.

6.3 Consequential Expenditure

All consequential impacts from the project will be modelled into the District Health Board's future operating costs and included in its future funding requirements for the joint Ministry of Health / West Coast District Health Board Sustainability Project.

7 Improvement Plan

7.1 Implementing the Process

West Coast District Health Board recognises the importance of maintaining a critical mass of affordable and properly functioning equipment, and the need to provide the capacity (facilities / equipment) necessary to respond to increasing health needs and expectations. Its ability to address priority health issues is influenced by how well health service assets are used. Financial management of these assets takes place in the context of West Coast District Health Board's *Finance Policies and Procedures* (refer Section 5).

7.1.1 Facilities Management

For operational purposes, facilities management (building fabric, plant and equipment) is guided by the *Facilities Policies and Procedures (maintenance and utilisation).* West Coast District Health Board currently uses BEIMS as its maintenance management system. The main components of BEIMS are a:

- master asset list which can be configured at various levels (e.g. site, building, system, asset category);
- Planned Preventative Maintenance (PPM) module; and
- breakdown or Ready Response (RR) module.

The Planned Preventative Maintenance and Ready Response modules are linked to the master asset list, against which Planned Preventative Maintenance or Ready Response tasks can be assigned. BEIMS then produces job cards on the due date, assigning tasks to staff or contractors. The system then tracks each task through to completion and records a job history (with costs) against the asset. The BEIMS system does not currently link with any other West Coast District Health Board data information sources.

7.1.2 Clinical Equipment

Clinical equipment is covered by the Biomedical Maintenance Programme that ensures the items comply with the relevant standards such as AS/NZ3760:2003, AS/NZ3551:2004, AS/NZ 2500:204 and various standards listed under AS/NZ3200. All electrical items entering West Coast District Health Board are first sent to the biomedical engineer, who ascertains the level of risk associated with the item, tests it according to the appropriate standard, and then distributes the item to the appropriate department. During the process, key asset information (barcode, asset type, location, purchase date, description and type of routine testing) is entered into the Biomed system. When an asset is disposed of, the database information associated with that asset is deleted from the database. Asset barcodes are only relevant to assets recorded in the Biomed system, and do not reconcile with any other West Coast District Health Board asset information sources. A key improvement activity will be to reconcile the FAR data with the Biomed system to produce a corporate dataset that will be used to inform the asset management process. The current Biomed system has been superseded by an advanced version of the product which is incompatible with the earlier software package.

7.1.3 IT/IS Management

IT and telecommunications assets are recorded in two systems: AuditWizard, and by a CrossLog System, an in-house MS Access database. AuditWizard is an application used for network asset

location, which can track hardware and software information with a flexible reporting interface. Standalone devices can also be tracked. Every device connected to the network is recorded in the CrossLog System, including network equipment. This database notes the location of equipment by room number based on the building plans. Standardisation of equipment manufacturers means that printers are managed and tracked using vendor tools like HP Jet Admin. Data is collected at acquisition stage and as a result of planned and unplanned maintenance work.

7.1.4 Asset Management Planning

The management of physical assets impacts on the quality, efficiency and sustainability of health services at all levels. It is recognised that the decision-making process on equipment needs may occur in isolation from any funding opportunities or calls for funding submissions. However the process of asset planning and identification of equipment needs enables the development of priority equipment needs. Equipment priorities should be reviewed regularly and may need to be updated to reflect factors such as changes in technology, service delivery methods, or the cost of equipment.

SPM Health©, a web hosted software application, has been used as a tool to assist with the development of this Asset Management Plan, identifying the timing and expenditure associated with future asset renewals/replacements. The system provides a consistent analysis platform across all asset types, utilising a deterioration model to predict and prioritise the timing of future replacements. The current process uses fixed asset register information mapped to the National Health Asset Standards and loaded into the application for analysis. The analysis is affected by asset criticality expressed in terms of patient safety, service delivery, occupational health, maintenance requirement and technology obsolescence.

7.2 Improvement Programme

West Coast District Health Board's 2005 Asset Management Plan improvement projects centred on gaining a greater understanding of its asset base in order to confidently predict the timing of future asset replacements. West Coast District Health Board has since built on the processes and data collected as part of the Asset Management Plan process. A review of medical equipment will be undertaken regularly to update the list of replacement requirements in the major facilities and primary health clinics (rural). Table 8.1 lists the specific tasks (milestones and responsibilities) that are planned to improve the asset management planning process.

Table 7.1 Asset Management Improvement Plan				
Asset Management Process	**Target**	**Resources**	**Responsibility**	**Milestone**
Stakeholder participation and buy in	Establish appropriate Asset Management Steering Group (AMSG) that will be add value to the projects identified in the AMP.	West Coast District Health Board's Executive Management team have taken on this responsibility		Complete
	Actively seek collaborative arrangements with other South Island District Health Boards as part of the development of a Regional Asset Management Plan.			
	Train and Up-skill staff to understand Asset Management concepts, processes and practices. Empower staff to undertake asset management processes.			
Link Asset Management outputs to capital budgeting / District Annual Plan process	Review and implement any necessary improvements to the Fixed Asset Register process.			
	Reconcile facilities and biomedical asset data with Fix Asset Register in asset management system.			
	Develop a robust and consolidated clinical asset replacement programme that identifies requirements out to at least ten years.			
	Record condition and performance information on asset base within the asset management system.			
	Undertake a condition survey for all Health Facilities and staff accommodation buildings to establish renewal requirements over the next 10 to 20 years. This information will be used to inform the Asset Management Plan , District Annual Plan and capital budgets.			

7.3 Monitoring Performance

Regular reporting of issues and achievement of milestones will be undertaken once responsibilities and resources have been identified and allocated.

Appendix A - Property Description – Medical Facilities

Facilities Description and Service Provided		
Facility		**Services**
Greymouth Base Hospital		• Regional hospital (medical and surgical) • Specialist outpatient clinics • Mental health inpatient unit • District and public health nursing • Clinic, surgery, and health centre
Old Board Office (Greymouth)		• Child and Adolescent Mental Health
Westport (Buller Health)		• General medical inpatient beds • Specialist outpatient clinics • Rest home beds • Community mental health service • General Practice • District and public health nursing
Kynnersley Home (Westport)		• Rest home
Reefton (Reefton Health)		• General medical inpatient beds • Specialist outpatient clinics • Rest home beds • District and public health nursing • General Practice
Karamea		• Rural Nursing Clinic • District and public health nursing

Facilities Description and Service Provided		
Facility		**Services**
Ngakawau		• Rural Nursing Clinic • District and public health nursing
Dobson		• Rural Nursing Clinic • District and public health nursing
Greymouth Medical Centre		• General Practice
Moana		• Rural Nursing Clinic • District and public health nursing
Hokitika		• Clinic, surgery and health centre • Specialist outpatient clinics • Community mental health services • District and public health nursing
Hari Hari		• Rural Nursing Clinic • District and public health nursing
Whataroa		• Rural Nursing Clinic • District and public health nursing

Facilities Description and Service Provided		
Facility		**Services**
Franz Joseph		• Rural Nursing Clinic • District and public health nursing
Fox Glacier		• Rural Nursing Clinic • District and public health nursing
Haast		• Rural Nursing Clinic • District and public health nursing

Photos courtesy of www.westcoastdhb.org.nz

Property Description – Staff Accommodation

Residential Properties – Staff Accommodation			
Building		**Building**	
Derby Street (Westport)		Marlborough Street (Greymouth)	
Sheil Street (Reefton)		Milton Road (Greymouth)	
Buccleugh Street (Greymouth)		Nancarrow Street (Greymouth)	
Domain Terrace (Greymouth)		Sinnott Road (Greymouth)	
Leith Crescent (Greymouth)		Power Road (Greymouth)	
Kynnersley Flats (Westport)			

Appendix B - Asset Management Spreadsheet 2009

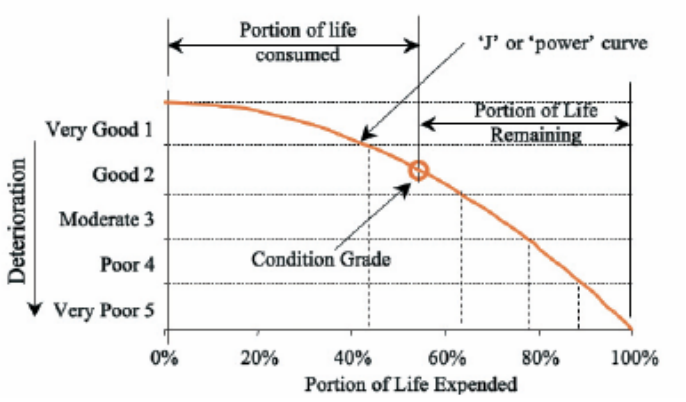
Appendix C - Condition Assessment Methodology - Equipment

Understanding and modelling the way in which an asset deteriorates over time provides increased confidence of estimating when an asset may need to be replaced or renewed. This knowledge could also be used to assist capital planning and decision-making of whether to commit scarce resources to this requirement or investigate other options such as new capital investment.

Different types of equipment have varying life expectancies, depending on the type of technology contained within them. However it is necessary to recognise any estimates for equipment lifetimes may be affected by a number of factors, such as:

- the physical environment and climate that the equipment is used in.
- the rate of use of the equipment (how many tests per month, how many patients per year, etc.)
- how many back-up units there are – whether a machine is used to its limit, overworked or overloaded
- how the equipment is handled or whether it is abused
- how well the equipment is cared for and cleaned
- how well the equipment is maintained and how often
- the initial quality of the equipment

Considering the above factors and the purpose of the Asset Management Plan, the approach used for clinical and non-clinical equipment is based on the combination of desktop approach and visual inspection of the equipment as part of the asset verification process. Condition, replacement costs and timing of these assets is based on the application of installation or commissioned dates and depreciation schedules in a generic asset deterioration model[3] as illustrated in the adjacent figure.



The objective of the asset verification was to provide West Coast District Health Board with a risk based approach for the prioritisation of its immediate and future clinical and non-clinical equipment replacement requirements. For the purpose of the Asset Management Plan we have assumed all equipment currently in service is either in a very good, good or average condition that meets health service standard requirements. Those that have exceeded their design life established by the National Health Asset Standards are either in a poor or very poor condition that would warrant replacement in the short term.

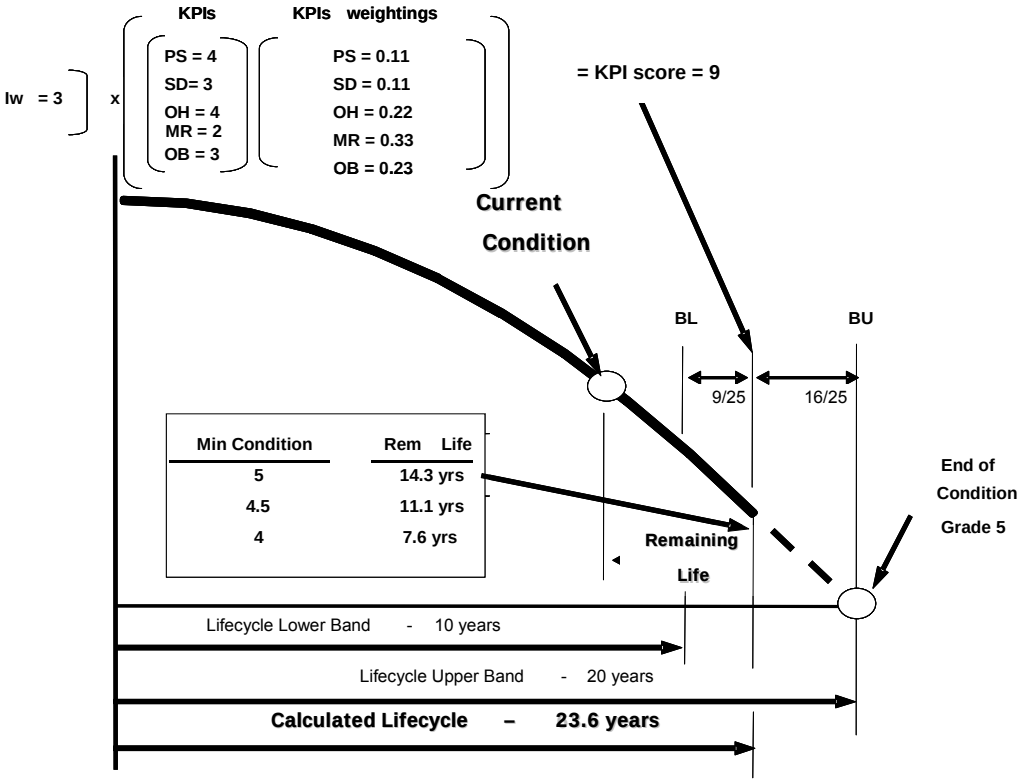
Timing of replacement of the assets is also affected by their criticality rating where those with a high criticality were replaced ahead of those in the 'same condition' with a lower criticality.

[3] Refer to the NAMS Property Manual ,Version 1.0, 2006 (page 3-16)

Defining the criticality is an important part of developing a sophisticated *'condition based risk analysis of the remaining life of a health service asset*[4]*.* As part of West Coast District Health Board Asset Management program implementation, the renewal analysis of its health service assets is based on the following criticality criteria[5]: Patient safety (PS), Service Delivery (SD), Occupational Health (OHS), Maintenance Requirement (MR), Technology Obsolescence (OB)

The criticality ranking of 1 to 5 of each criterion involves an understanding of its positive and negative consequences. The criticality criteria would be different for clinical and non-clinical equipment (e.g. buildings & plant, clinical equipment, IT equipment, motor vehicles and other equipment). The likelihood that those consequences may occur should also be taken into consideration for certain assets[6].

The application of the criticality ranking in the algorithm is illustrated below



[4] Refer Section 3.5 of the NAMS Property Manual Version 1.0, 2006 for component data used for Risk Assessment *(figure 3.8)* and explanatory notes on Performing a Risk Analysis (Section 4.3.3).

[5] Refer to the National Asset Standards 2004 established by the participating DHBs (WCDHB, ADHB, CMDHB, NDHB and WHDHB) in the Asset Standardisation Project.

[6] Refer to Figures 4.5 and 4.6 of the NAMS Property Manual Version 1.0, 2006 (Page 4-6) for further information on risk analysis.

Error! Reference source not found. illustrates a generic example of 'criticality ranking' that could be tailored to specific District Health Board or asset requirements.

Table 0.1 - Generic Criticality Rating

Criteria	Not Critical 1	Low 2	Medium 3	High 4	Critical 5
Patient Safety	No effect	Near Miss	First Aid	Injury	Death
Service Delivery	Able to provide an acceptable level / quality of service	Able to provide an acceptable level / quality of service and not considered for replacement in the near future.	Able to provide an acceptable level / quality of service but requires replacement soon.	Unable to provide require level / quality of service completely and requires urgent replacement	Unsuitable for providing required health service and requires immediate replacement
Occupational Health	No effect	Near Miss	First Aid	Injury	Death
Maintenance Requirement	Insignificant Not required	> 10% of replacement cost Once per year	10-25% of replacement cost Not more than five times a year	< 50% or replacement cost Monthly or more	> 50% of replacement cost Weekly or more
Technology Obsolescence	No effect	Obsolete after expected service life of asset is expended	Obsolete within the next few years. Manufacturer has stopped production.	Obsolete within the next 12 months though spare parts are available from manufacturer.	Completely obsolete with no spare parts available for repair or replacement

Appendix D - Service Justification Spreadsheets

Appendix E - Capital Intentions Spreadsheet