



Waitakere City Council
Te Taiao o Waitakere

Waitakere Information Access Strategy

September 2006



Strategic Policy Development

Cover Sheet

Policy name	Waitakere Information Access Framework
Adoption information	Draft to City Development Committee 9 September 2002 as draft for consideration and ongoing review. Further draft to City Development 7 July 2005 as draft for consultation. Final draft presented to City Development 12 September 2006
Review date	Two years for date of adoption.
Complying with what legislation, if so, list Section etc.	Complies with LGA 2002 – Sections relating to Consultation (S76 ff.) and Decision Making (S79 ff.)
Executive summary	<p>The framework proposes the vision statement below:</p> <p><i>“Waitakere will become a city where communications infrastructure is available, access to computers and the internet is without barriers, and all citizens are able to obtain meaningful online content; all of which is necessary to support the Council’s goals and priorities for developing a city that is technologically advanced in the information age”.</i></p> <p>The general approach is to continue supporting increased provision of information and communications technology in the City through a range of projects.</p> <p>The strategy is built around two objectives and further delivery mechanisms which support the above vision statement.</p>
Project manager, and names of development team	<p>Internal: Rochelle Edwards, Janet McDonald, Fraser Henderson, & Ross McLeod (Sponsor).</p> <p>External: Waitakere Libraries Staff</p>
Responsibility for implementation	Strategic Projects, Asset Management, Information Management, Parks Planning, Resource Management & Economic Development & Implementation project team
Monitoring measures associated with the policy	Measures are outlined through the delivery mechanisms of the Strategic Framework
Key supporting documents	<p>Title: (draft) Waitakere Learning Centres Strategy</p> <p>Title: Waitakere Economic Development Strategy</p>

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1. Document Purpose

This strategy document sets out the vision for the Waitakere as an electronically enabled and sophisticated City and outlines the Waitakere Information Access framework to achieve it.

2. Introduction and Background

It is increasingly recognised that ensuring access to broadband and communications infrastructure is as important as providing access to roads and water (especially to businesses with export markets, with broadband providing access to 60 billion clients worldwide). Council has a responsibility to encourage the roll-out of cost effective high-speed communications, taking the needs of communities, schools and small business into account.

Council leadership and advocacy is required to mitigate the 'vicious circle' for broadband applications which is created by the following elements:

- High cost/ slow roll-out of infrastructure
- Slow take-up reduces investment in roll-out

Critical mass needed for user and content to facilitate take-up

The European Industry of Communication Technology Association (EICTA) advocates the following policy steps for central and local government:

eGovernment: public authorities should harness the power of broadband to provide improved, meaningful and user-friendly on-line services. As well as leading to improvements and efficiencies in public services **this will help to drive consumer demand for broadband.**

Partnerships for primary infrastructure - between local government, central government and the private sector in areas where there is no commercial incentive to deploy Broadband (the Provincial Broadband Extension Project, funded by the Ministry of Education and the Ministry of Economic Development, is an example of this). Such partnerships would spread the investment burden between local authorities and commercial operators, reducing the up front civil infrastructure costs for operators to levels that would allow them to make a reasonable return on investment. It should be noted that Council's investment could be non-financial (e.g. provide access to

redundant services to minimise costs for installation of infrastructure).

Aggregating demand: from different public services. Councils can play a key role in facilitating aggregation.

Removing barriers: re-examining planning and consent processes to ensure infrastructure improvements are encouraged and infrastructure meets future needs as well as current ones.

This philosophy is mirrored in the central Government Digital Strategy (2005) which establishes the following goals for developing New Zealand as a knowledge society:

- **Content:** To unlock New Zealand's stock of content and provide all New Zealanders with seamless, easy access to the information that is important to their lives, businesses, and cultural identity.
- **Confidence:** To provide all New Zealanders with the digital skills and confidence to find and use the information they need; and to ensure that telecommunications and the Internet in New Zealand are reliable and secure.



Connection: New Zealand will be in the top quarter of the OECD for broadband uptake by 2010.

Infrastructure should be linked to high tech clusters, supporting businesses and organisational needs and to research and learning centres, as well as meeting the needs of the general community (ensuring equitable access to infrastructure and skill development). Council is responsible for developing policies which attract IT-intensive industry to the City by:

- Enabling high speed IT access for IT-intensive industry
- Encouragement of community networks and the creation of online content.

To date the council has:

- Upgraded provision of council information and services.
- Used libraries and developed new learning centres to overcome the growing divide in IT access and skills
- Worked with Enterprise Waitakere (and Unitec) to facilitate business-to-business linkages

- Established a community owned City Portal; www.waitakereonline.co.nz
- Used regulatory powers to require developers to install (and vest in Council) conduits capable of accommodating future fibre or copper connections in greenfields subdivisions.
- Developed new Code of Practice standards for the installation of ICT infrastructure to ensure better practices for future-proofing privately funded ICT investment decisions, and protecting public assets through improved methods of installing this infrastructure.
- Allocated resources through the Annual Plan to support public investment in ICT infrastructure where it fits with the investment criteria outlined in this framework.

Key drivers for the council to ensure a proactive strategy is in place to address communications infrastructure:

- To survive: small businesses are already relocating from Waitakere due to inadequacies in the provision of communications infrastructure – avoiding

action will cost the city competitiveness, new investment and community development.

- Avoid digital divide (socio-economic and cultural groups, urban versus rural)
- Generate competition (eBusiness, eCommerce)
- Economic development; access to world wide markets, creation of high quality employment, attract new businesses, clients and residents, support innovation.
- Sustainable development: efficiency, equitable access to services and technology, travel and lifestyle choice.



3. The Vision

“Waitakere will become a city where communications infrastructure is available, access to computers and the internet is without barriers, and all citizens are able to obtain meaningful online content; all of which is necessary to support the council’s goals and priorities for developing a city that is technologically advanced in the information age”.

4. Fit with Council Strategy and Policies

This vision supports the council's long-term strategic priorities. The pathways for delivering on these priorities include:

URBAN & RURAL VILLAGES

Provide choice about employment in neighbourhoods and town centres; enable home businesses (mitigate ‘dormitory suburb’ effect and strengthen critical mass for peripheral urban locations).

TRANSPORT & COMMUNICATION

Increase in people working from home, or accessing services and information from home; shorten trips generated. Increase in communication opportunities.

STRONG INNOVATIVE ECONOMY

Grow the economy and provide more local jobs; promote the City of Waitakere to potential investors whilst supporting local business; support the development of business clusters (i.e. film, marine, education, health, professional services); meet challenges of the global economy; develop a more skilled work force.

STRONG COMMUNITIES

Meet the community’s changing needs: provide internet access; support well-being through improved educational opportunities and access to greater range of business, banking, entertainment, social and health services (includes access to applications such as video conferencing, clinical decision-support systems and transfer of diagnostic images).

STRONG DEMOCRACY

Improved dissemination of information and new methods for public participation in decision-making processes; Provision of a friendly face

(especially to businesses); Making services more accessible and affordable.

These goals are to be achieved by working in partnership with the community and with other agencies towards shared goals, a style of working which is highly relevant to achieving the goals of Waitakere Online.

The Waitakere Online Strategy has strong linkages with the following council policies and programmes:

- eGovernment Strategy
- Economic Development Strategy
- Business Cluster Strategy
- Education Strategy
- AIM Programme
- Traffic Reduction
- Town Centre Revitalisation

The draft Waitakere Information Access framework (approved by the council in 2002) has resulted in the development of further strategic documents: the Learning Centres strategy and a draft ICT Infrastructure investment strategy.



5. The Objectives

To improve communications technology infrastructure within the city to facilitate ongoing sustainable economic growth.

To enable the people, business and communities of the city to take maximum advantage of communication technologies to improve social and economic well-being.

6. Strategy, Goals and Delivery Mechanisms

Through community advocacy and cooperative approach between the Central Government, regional authorities, the Waitakere City Council, community, business, education providers and service providers:

- Ensure Provision of Infrastructure (e.g. installation of fibre-optic cable and wireless solutions capable of delivering high speed connections).

- Facilitate E-Access & Skills: (e.g. physical access to computers, the internet, and training that enables the community to gain the skills to uptake all of these services in the libraries and learning centres).
- Improve Content: (e.g. supporting the Waitakere Online Portal & improved online services such as the opportunity to submit online).

6.1 A co-operative approach to delivery

The Waitakere Information Access programme encompasses projects, initiatives and work streams being undertaken across council and supports projects being undertaken by community groups and business to ensure that the city has the information technology capabilities necessary for it to compete and take advantage of the communications age.

The council encourages formalised partnerships with community and business groups, and Central Government agencies to progress pilot projects to improve ICT in the city. This is reflected in the council's Memorandum of Understanding with the WorkRaft Trust.

6.1.1 The Council's role

The council has a role to facilitate the delivery of the Waitakere Online objectives through the most appropriate mechanisms available. This will involve a combination of the following:

- Strategic planning and management of development for future needs of the city: this entails understanding and maintaining a 'big picture' perspective (identifying priorities, duplications and gaps in current and proposed initiatives), and developing strategies to guide this work and promote the council's strategic position; e.g. the development of an ICT Investment Strategy.
- Policy and Regulation (Economic Development Policy; District Plan Infrastructure Rules; Secure public infrastructure corridors; Code of Practice guidelines for infrastructure ducting and access to those ducts; Guidelines for installation of transmitters; Changes to the District Plan to address new land uses arising from changes in technology; Expedient resource consent processing).



- Non-regulatory tools: Leverage as a large client (high level user); Demand aggregation; Advocate for competition and choice in service provision.
- Possible investment through the Annual Plan with other external agencies such as Central Government, Business (including Telecommunications Companies) and Community Groups (improve coordination and collaboration between parties and their initiatives).
- Independent council investment in ICT infrastructure where strategically and financially beneficial to do so.
- Delivery on strategic council projects (i.e. Urban Villages, Lincoln Vineyard Business Park).
- Support/ facilitation for projects driven by the community (i.e. Ranui Action Project, WorkRaft Trust).
- Support of Enterprise Waitakere initiatives.

6.1.2 Roles of Other Entities

External entities also have a critical role to play in achieving council's strategic objectives (as well as their own objectives) and in achieving the Waitakere Online vision (refer Appendix 2 for specific work examples):

- Enterprise Waitakere & Local Business
- Education, Health & Social Services
- Community Groups
- Shared/ Regional Services
- Central Government (Ministries of Education & Economic Development)
- Utility Operators (Telco's, Power)

Like the technology itself, the issues and initiatives that fall within the umbrella of city-wide initiatives around improved Information Communications Technology are many and complex, with the potential to escalate unless a clear council framework is established around what the council can do to progress them.

A number of the projects in this area of work involve business and community interests with representatives who are keen to push ahead in particular directions. The council needs to adopt

a solid programme management framework to ensure that resources are used wisely and that leverage is maximised from any work that is undertaken.

6.1.3 Prioritisation of council's work programme and partnership projects

The prioritisation of projects and initiatives should filter through from the council-wide rationale for prioritisation of work programmes. In the interim, the following considerations have been applied:

- Continuation of projects identified as having key linkages to Waitakere Information Access Programme which are:
 - predominantly operational or project-based in nature (mandate provided via the Annual Budget process); or
 - which are inherent to long-term planning and policy development; or
 - which support national or regional initiatives; and
 - which support the agreed objectives for Waitakere Online, and
 - have generated necessary momentum and are supported by necessary resources.



For new or proposed projects, the following rationale is proposed:

- Is there a robust business case (purpose and objectives; timing, resources)? All proposed initiatives should be based on a business case which clearly identifies any funding requirement and aligns to the Waitakere Online Strategy (supports objectives, addresses gaps in current programme).
- Urgency of project (3-month, 6-month etc) and the implications or risk of not taking action
- 'Piggy-backing' on opportunities provided by external drivers such as central government funding

Tools to be provided for the prioritisation of initiatives and the council's role within them include:

- Data map of the city (infrastructure currently available/ planned; identify current and future high, medium and low need broadband zones in terms of geography, demographics, social changes and economic growth nodes).

- Matrix of projects that are underway, projects considered to be critical to delivery of Waitakere Information Access Programme. Objectives and projects which are registered on a low priority or 'wish list' (which may be escalated if external drivers arise to provide necessary momentum and support).

In relation to the objectives of the Digital Strategy and the European Industry of Communication Technology Association's recommended approach, policies of partnership investment and demand aggregation, these strategies should only be employed for communities or locations after:

- Other opportunities have been explored, such as the marginal funding needed for the additional cost of enhanced infrastructure to remote or small locations after the Ministry of Education and Ministry of Economic Development school broadband funding has been applied.

- The estimated forward information volumes that would be communicated over networks to and from the location have been calculated and:
 - It has been determined not to meet required commercial returns; and
 - There is a specific objective or outcome that the council can identify that justifies the investment (or subsidy).
- The Memorandum of Understanding with WorkRaft Trust also sets up an agreed framework for the council and this chosen external partner to deliver projects that improve ICT infrastructure, access, skills and online content in the city. It also provides a forum for consultation and communication between the council and the Trust, and enables both parties to establish and work toward an agreed work programme of projects that will generate a greater public good through the provision improved ICT.



6.1.4 Programme management approach

A programme management approach will be used to ensure:

- Clear understanding of vision, objectives and acceptable service standards;
- Strategic coordination, linkage and prioritisation of work programmes and resources (review quarterly);
- Identification and maximisation of opportunities;
- Identification, investigation and mitigation of gaps in work programmes;
- Considered response to initiatives as they arise.

Projects will generally deliver results across the groupings of Infrastructure Provision, Infrastructure Access and/or Skill Development and online content / e-service delivery. Projects can be categorised as follows:

e-Infrastructure Projects	(driven by the council)
Policy	(Waitakere Information Access Strategy)
Physical	(Infrastructure Provision – public investment & partnerships)
Community	(Community Access & Skill Development / Learning Centres)
Information	(Waitakere’s eGovernment Strategy & City Portal Strategy)
e-Interface Projects	(driven externally with degree of council-involvement)
eBusiness	(i.e. WorkRaft Initiatives/ Westsmart Business Centre)
eCommunity	(i.e. Infotech Call to Action, WeDG, WorkRaft)
Shared/Regional Services	(Regional Portal, Library Services, BBLG)
Central Government	(i.e. Broadband to Schools, Advanced Network)
Utilities	(i.e. United Networks, Telco’s for fibre/ wireless)



6.2 Facilitate provision of infrastructure

Speed Comparison for Internet Connection:

Goal A: 100% of homes in Waitakere City have access to broadband, should they wish to connect

Broadband is defined as being an always on, high-speed Internet connection delivered via phone lines, cable or wireless signals (minimum of 256kbps)

Goal B: Very high speed connections are available and affordable in town centres and in new business and mixed use developments

Very high speed connections are defined as being secure connections in excess of 1Gbps, probably delivered via cable.

	Delivery Service	Speed	Time to download a full Movie
Not Broadband	Rural dial-in modem	14.4 kbps	16 days
Not Broadband	Urban dial-in modem	56 kbps	14 days
Broadband	Typical Residential Broadband in NZ (in late 2006) – could be delivered over a combination of copper, fibre, wireless and satellite infrastructure	256kps	20 hours
Broadband	Copper near urban exchanges, Fibre Optic and Satellite Solutions	1 gigabits	5 hours
Very High Speed Broadband	Fibre Optic and Limited Satellite Solutions	10 gigabits	20 seconds

These goals define an acceptable level of service delivery for needs across the city. They are based on speed categories associated with the types of bandwidth connection and applications required (refer table below and Appendix 3 for examples of bandwidth requirements and potential use).



6.3 Improve Access & Skills

Goal C: The number of supervised computers available for free public internet use (supported by basic instruction) in libraries and learning centres is increased.

Goal D: All residents have the opportunity to acquire basic skills to use computers, search the internet, obtain council information online, and communicate via email.

Goal E: The number of residents who regularly use the Internet, either at work at home or in libraries or leaning centres, increases each year.

These goals all support a long term goal that - Every resident has an email address, and the access and skills to use it.

6.4 Improve Online Content

Goal F: To improve online services including the delivery of council information / minutes and to enable residents to lodge submissions on public issues online.



APPENDICES

APPENDIX 1: Examples of Council and Non-Council Roles

Council Role	Actions
Policy & Regulation	<ul style="list-style-type: none"> • District Plan provisions. • Code of Practice guidelines. • Processing of resource consents and Road Opening Notices. • Analysis of needs and of the economic and social impacts of improved access to communications infrastructure. • Policy development (i.e. Waitakere Information Access, eGovernment, Economic Development, Urban Villages, Business Cluster, Education).
Strategic Planning, Advocacy & Facilitation	<ul style="list-style-type: none"> • Leadership and planning for future development (includes service demand aggregation for business and community). • Partnerships with key stakeholders such as Enterprise Waitakere, WorkRaft Trust, Waitakere ACEA, and Community Groups (e.g. Ranui Action Project). • Input to Shared/ Regional initiatives such as the Broadband Liaison Group, (input to requests for central government funding for community pilot projects). • Negotiations with strategic stakeholders such as Transit New Zealand (State Highway 18), Auckland Regional Transport Network Limited (ARTNL) (regarding the lease of surplus fibre under the rail corridor). • Advocacy to ensure service provision for priority projects such as Hobsonville/ Northern growth area, Henderson/ Lincoln Road & New Lynn. • Client-based market leverage with service providers.
Investment	<ul style="list-style-type: none"> • Indirect investment through support of operational and capital projects linked to the Waitakere Information Access programme (e.g. provision of libraries and community centres which support Learning Centres, staff resource to investigate and co-ordinate the Waitakere Information Access programme). • Asset management, especially the extensive road reserve assets that Council owns. • Direct capital investment in ICT infrastructure where it can be undertaken in partnership with externally lead projects or at the same time as the installation of other public assets on Council land. • Investment to support the maintenance and development of the Waitakere Online Portal. • Direct investment in the Waitakere Learning Centre and a full time Learning Centre coordinator resource.

External Entity	Actions
Enterprise Waitakere & Local Business	<ul style="list-style-type: none"> - Driver and source of funding for local business (investigate, advocate and aggregate demand for high-level applications available via broadband). - Training opportunities and provision. - WEST SMART Business Support Centre.
Education, Health & Social Services	<ul style="list-style-type: none"> - Waitakere ACE Mapping Project. - Waitakere ACEA – adult computer training providers. - Unitec e-for-free training.
Community Groups	<ul style="list-style-type: none"> - WorkRaft Trust: Promotes and supports the use of ICT for beneficial social outcomes. - Driver and source of funding for community initiatives. - Waitakere eDemocracy Group (WeDG): Promotes participatory democracy in Waitakere City by facilitating the effective and equitable use of Information Communication Technology (ICT). - Ranui Action Project (RAP).
Shared/ Regional Services	<ul style="list-style-type: none"> - eGovernment - Regional Portal - Library Services - Traffic Flow Management - GIS/ Mapping - Auckland Regional Economic Development Strategy (AREDS)
Central Government	<ul style="list-style-type: none"> - Funding process in place that provides leverage for provision of extended broadband services (added community benefit as a differentiator in tender evaluation process) - Council involvement via Auckland Regional Economic Development Forum to maximise benefits to Waitakere City.
Utility Operators	<ul style="list-style-type: none"> - Extend broadband to those areas with business case to support (i.e. demonstrated demand for services) or propose options for partnerships with Council to deliver comprehensive network.

APPENDIX 2: Examples of Bandwidth Requirements

Table 1: Bandwidth Requirements for Different Applications:

Class of Connection	Dial-up modem Class	Cable modem/ xDSL Class	Higher Bandwidth Classes	Higher Bandwidth Classes
Speed	Up to 56 Kbps	Up to 2 Mbps	10 Mbps	100 Mbps
Home User	Information access and research, correspondence, non-real-time audio and video	Some effective e-learning with real-time video conferencing and application sharing, CD quality audio entertainment	Broadcast quality video entertainment services, low end HDTV	High Definition TV entertainment
Physician	Information access and research, correspondence, non-real-time transfer of diagnostic images	Video conferencing for cardiology, neurology, and emergency room consultations, cineangiography and echocardiograms, basic clinical decision-support systems	Professional Tele-education	Advanced clinical decision support systems, 3D interactive brain imaging
Small business owner	Information access and research, correspondence, some e-business transactions	Integration of voice recognition and data environments	Virtual reality applications	

Table 2: Bandwidth Requirements for Organisations:

Organisation type	Driving parameters and applications	Bandwidth required
Small school	100 students in school, 6 students per computer, e-learning	10 Mbps <i>[256Kbps – 2 Mbps]</i>
Large school	1,000 students in school, 6 students per computer, e-learning	100 Mbps <i>[1- 10 Mbps]</i>
Small hospital	10 concurrent consultations, one professional education session, advanced clinical decision support system	10-100 Mbps <i>[2 – 10 Mbps]</i>
Large hospital	25 concurrent consultations, 5 professional education sessions, advanced clinical decision support system, multiple users	100 Mbps - 1 Gbps
Small business	1-5 staff with access to web, email, web browsing through to low volume web/e-business server	Dial-up modem/ xDSL class <i>[56 Kbps – 4 Mbps]</i>
Medium Business	5-50 staff with access to web, low volume web/ e-business server	Cable Modem/xDSL Class <i>[1 Mbps – 10 Mbps]</i>
Large business	50-500 staff with access to web, high volume web/ e-business server, use of video conferencing	10 Mbps
E-Content supplier	1,000 concurrent clients accessing MPEG 1 video	100 Mbps - 1 Gbps