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**CASE STUDY**

**Taranaki Regional Xplorer**

Taranaki Regional Council, Stratford District Council  
South Taranaki District Council

**Presenter**

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**Presented By**



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# Taranaki Regional Xplorer

## Executive Summary

Taranaki Regional Xplorer is a collaborative GIS solution from the Taranaki Regional Council, the Stratford District Council and the South Taranaki District Council. It provides a one-stop shop for easy and free public access to a broad range of spatially based information about the Taranaki region. It has been operative since 2004.

Taranaki Regional Xplorer is a national, if not international, first for the collaboration of local authorities in the provision of public information. This information is now freely available in an easy to use geographic format designed for use with all popular browsers. As a public enquiry, Taranaki Regional Xplorer supports low speed dial-up access for urban and rural communities who may not have fast internet access.

Whilst a number of local authorities have GIS websites the collaborative nature of the website means the quantity and quality of the information presented on Taranaki Regional Xplorer is a leap forward in the provision of free and useful information to people.

Taranaki Regional Xplorer is a tremendous resource for the community, which will be extended to include a large amount of additional information about the region, its attractions and opportunities as new public and private sector partners join the initiative.

The Xplorer website averages 60,000 new images per month.

## The Problem or Issue / Initial Environment

### The need for and the expected benefits of the project

The Taranaki Regional Council's mission is

*to work for the present and the future benefit of the Taranaki region by:*

- *promoting the sustainable use, development and protection of Taranaki's natural and physical resources*
- *safeguarding Taranaki's people and resources from natural and other hazards and*
- *representing and advocating Taranaki's regional interests.*

*We will do this in a responsible and cost effective way that includes and encourages participation by the regional community and takes account of the Treaty of Waitangi.*

This project aimed to encourage the participation of the regional community in the activities, functions and duties of the Taranaki Regional Council by providing freely accessible public information in an easy to use format. It represents a significant paradigm shift in making information openly available for public access rather than having interested parties coming to the Council and requesting specific information.

*The mindset underpinning the project was “let’s make all of the information we have, as easily available as we can to everyone” as opposed to “let’s only make available what we have to on request and if possible at a cost”. While noting and providing for necessary constraints such as privacy, open and healthy democratic communities rely on easy access to factual information.*

It was clear, early on in the planning for this project, that by expanding the project to include the region’s district councils, and further onto other public and private sector bodies, that the Council’s role in representing and advocating the region’s interests could be aided by promoting the development of a one-stop shop for all Taranaki information. The concept of one website, that would in effect become *Taranaki.com*, is an achievable goal in the medium to longer-term.

The Stratford and South Taranaki District Councils have similar organisational strategic objectives in terms of making public information readily and freely available to their communities.

### **Description of the Project / Response**

The Councils have partnered with Explorer Graphics Limited to deliver site support, developmental, data management and web-hosting services.

#### Effective project management techniques

This project adopted a standard approach to a major IT development. The project had a number of key phases that were followed namely, planning, development, testing, implementation, deployment and evaluation. The key themes that ran through the project to allow for its success were the collaborative and open approach to communication from all parties and the use of a central co-ordinator to act as a go-between between Explorer Graphics Ltd, Taranaki Regional Council and the Stratford and South Taranaki District Councils.

The Taranaki Regional Xplorer project started out as a Taranaki Regional Council in-house project to take the Council’s successful intranet GIS application out to the world, via the internet, to make public information easily, readily and freely available. The drive to do this was made by council officers and the project required Council approval. The merit of undertaking this as a regional initiative was discussed and councillors saw this as opportunity for cost effectiveness.

At that point the other three Taranaki district councils were invited to join the group to investigate whether a regional approach and solution was feasible.

Expressions of interest were called for and Explorer Graphics Limited was appointed to partner the Taranaki Regional Council and the Stratford and South Taranaki District Councils. Explorer Graphics Ltd were contracted to develop the regional solution and then to host and maintain Taranaki Regional Xplorer.

Throughout development and implementation, significant testing of the product was undertaken by all the three Councils and various external parties. The site development followed an accepted IT software development strategy of specification, beta, prototype and production deployment. Extensive utilisation was made of Explorer Graphics' hosted servers during this period to refine performance and confirm the practicality of ease of use in a "real world" environment even in the testing phase. This not only allowed for any bugs to be identified and corrected, but for improvements to be identified and made prior to public deployment.

Regular meetings of all parties to the project were held throughout the process. These meetings allowed for free and open communication. One person (a staff member from TRC) was appointed to act as go-between between Explorer Graphics Ltd, Taranaki Regional Council and the Stratford and South Taranaki District Councils. This allowed for a co-ordinated approach to be adopted through the planning, implementation, testing and deployment phases.

#### A participatory approach to communicating with and getting buy-in from stakeholders

Obtaining buy-in from key stakeholders has been easy to achieve. In the first instance getting the support of the Stratford and South Taranaki District Councils was straight-forward as both Councils could see not only the value and desirability of making their information publicly available, but also the benefits of combining with the Taranaki Regional Council to provide a one-stop shop for information. Additionally both district councils now have an improved internal GIS product for their staff to use.

Presentations to Councillors and Senior Management from the three Councils throughout the project's life continued to grow support for Taranaki Regional Xplorer.

The drive for the project came from officers with TRC taking the project leadership role with the other two councils supporting the project in full. No formal memorandum of understanding is in place but at the outset a letter of confirmation and commitment to the project was exchanged. In terms of the shared service arrangement there were no particular difficulties as the project was between three willing partners working co-operatively.

Meetings with, and demonstrations of Taranaki Regional Xplorer to, external parties have similarly been held and the product has tended to sell its self. External parties have been quick to see the opportunities associated with this product.

The main stakeholder for the Taranaki Regional Xplorer has been the general public and users. The Councils and Explorer Graphics Ltd placed significant effort into making the product as easy and as intuitive as possible to use. This focus has paid dividends. The feedback from users is that the Taranaki Regional Xplorer is both easy to use and logical to work with. This is reflected in the high numbers of hits that continue to be recorded on the Taranaki Regional Xplorer site.

#### Communication to the Public

Media release and word of mouth have both been effective in getting the message of the availability of Taranaki Regional Xplorer to the regional, national and international

communities. Ongoing promotion (by way of direct mail brochures) of the site occurs as additional partners come on board and/or additional data layers are added or developed and deployed.

### Demonstrating innovation and originality

This project is a national, if not international, first in terms of local authorities working together to provide a one-stop shop for accessing public information from a number of different entities. Many councils provide public access to information through the use of GIS websites. This is the first site in New Zealand to successfully integrate information from territorial and regional councils with that of external independent bodies.

The range of information also available is second to none. In particular all of the operational databases maintained by the Taranaki Regional Council are accessed to provide comprehensive information to the public. In effect an environmental equivalent of a Land Information Memorandum (LIM) on Taranaki Regional Council information is now available. As additional layers of territorial information are developed and deployed, a combined District Council and Regional Council LIM will effectively be supplied in the public environment.

The system architecture of the Taranaki Regional Xplorer is written in Active Server Pages (ASP) and is deployed using ESRI's Internet Map Server technology, ArcIMS v4.01 using the ActiveX connector. Spatial data including aerial photography is managed via ESRI's Spatial Database Engine, ArcSDE v8.3 and Microsoft SQL Server 2000. This technology has been configured and optimised to deliver a high performance system via Explorer Graphics Ltd hosted servers in central Wellington.

Taranaki Regional Xplorer works well with all common internet browsers across a variety of hardware platforms. The application is extremely lightweight and very fast with the initial download including the map image being less than 100kb. This means that a single page should load within 25 seconds on a 56kb dial-up modem that many users use for internet access.

We have received no feedback from users unable to access Taranaki Regional Xplorer in general or specifically from incompatible machines, operating systems or internet browser. In fact user feedback has highlighted the site's ease of use and performance. This success vindicates the effort from Explorer Graphics Ltd in making sure the underlying technology architecture was appropriate to the vast array of data and richness of functionality available from the site.

Taranaki Regional Xplorer provides a one-stop shop for easy and free public access to a broad range of spatially based information about the Taranaki region.

Taranaki Regional Xplorer is accessible from the link on the Council's websites at:

[www.trc.govt.nz](http://www.trc.govt.nz)

[www.stratford.govt.nz](http://www.stratford.govt.nz)

[www.stdc.govt.nz](http://www.stdc.govt.nz)

The website is also accessible from other websites (e.g., Venture Taranaki, Taranaki Rhododendron Festival), by clicking on the Xplorer logo link.

The information presented includes:

- Regional aerial photography
- Land parcel boundaries
- Topographic data (e.g., roads and rivers)
- Taranaki Regional Council data including resource consents, compliance monitoring data, live rainfall data, plant and animal pest information, hydrology and groundwater information, maraes, significant wetlands and land management plan information
- Stratford and South Taranaki District Council information such as water, stormwater and sewerage services
- Land information including assessment number, address, legal description, area (ha), capital value, land value, district council rates, regional rates and total rates
- Photographs of features of special interest (e.g., maraes)
- Links to other information in Council databases and to third party websites
- Third party information. For instance the Taranaki Rhododendron Festival trust is using the site to highlight the gardens available in their festival together with photograph of each garden.

All of this information can be searched on the following parameters: Address, Assessment Number, Road, Place Name, Farm Dairy Number, River Name, Rhododendron Festival Garden and Rhododendron Festival Garden Trail.

## **Results – Financial and Service Level Impacts**

The goal of providing a collaborative public enquiry portal for the delivery of a broad range of geographic information about the Taranaki region has been achieved. In this sense the project has been a success.

With any website, a key indicator of success is the number of visits the site receives. The site received 12,000 hits on its first day (August 2004). Since then the number of hits has averaged 1,700 to 1,800 map requests per day (60,000 per month). At this level, it is clear that the site is receiving much more than one-off visits from members of the Taranaki community. That is, the number of hits on the site suggests a high level of repeat visits.

An unexpected benefit has been that Stratford and South Taranaki District Councils are using the site as an interim internal GIS deployment solution. Feedback from the users at these Councils, especially those at remote office sites, is that the product is invaluable in completing their work requirements.

An indirect benefit of the project has been the provision of a seamless service to the public. Previously it was difficult for the public to understand the council boundaries that determined which councils managed what geographical areas. Now with the combined on-line database the public can access the information with no need to know which council has jurisdiction of what area (it is not longer necessary to visit the council office) and this has resulted in providing a more positive image of local government services generally.

The collaboration of three councils allowed for the sharing of costs and for an element of economies of scale to come into play. With the sharing of capital and operating costs each Council has a cost effective solution that they would not be able to achieve on their own.

This combined reduction in costs has been able to be passed onto the rate paying community.

The capital cost of the project was around \$40,000 and was shared between the three councils based on the of size of the organisation, amount of data on the website and ability to pay resulting in a 60/30/10% formula. This formula is also applied to the annual operating costs which are around \$10,000. Other costs that are internal to the organisation are met where they lie. An example of this is the salary of the co-ordinator is met by TRC as they are a staff member of this council.

Without a doubt the key to success of Taranaki Regional Xplorer has been ease of use and site performance. The design was targeted to be easy to use and intuitive. We wanted the site to be useable for people with a wide range of computer and internet skills. Again the feedback is that we have succeeded with users quickly able to understand how to navigate the site and to be able to get the information they require. This has not compromised the data or the tools available on the site that advanced users would wish to have. Indeed as noted earlier the Stratford and South Taranaki District Councils are using the site as an interim internal GIS solution.

The richness of the site with regard to the amount of data that is being delivered is exceptional and that fact that all this information is available in an easy to use manner via an intuitive interface that makes operational utilisation of basic navigation tools, search options and includes the option of producing printed output means that the Taranaki Regional Xplorer will continue to be used as a key information portal for the region.

### **Prospects / the Future**

Other organisations are evaluating whether to become partners in this project. As the project is a public service, not for profit enterprise, new partners are welcomed.

The Stratford and South Taranaki District Councils are also looking to use the website to enhance the delivery of internal GIS services to their own staff.

Success can also be judged by the willingness of other bodies to become involved. The site and concept are starting to be adopted by other external agencies. The first external body to become involved in the project is the Taranaki Rhododendron Festival Trust which is using the site to provide information on the gardens and trails available for the Taranaki Rhododendron Festival.

Links to the Taranaki Regional Xplorer are also possible from the Rhododendron Garden & Festival website [www.rhodo.co.nz](http://www.rhodo.co.nz).

Taranaki Regional Xplorer is changing the way in which the Councils undertake their business. For instance the three Taranaki based district councils and the Taranaki Regional Council are currently undertaking a regional project to develop and implement a *Walkways and Cycleways Strategy for Taranaki*. This project also involves a number of external parties.

This group is considering using Taranaki Regional Xplorer as a mapping and publishing tool to enhance the public information gathering/dissemination and public consultation facets of

the project. By mapping and publishing, via Taranaki Regional Explorer, walkways and cycleways in one central point for the region, the methods by which public information gathering/dissemination and public consultation can be undertaken are significantly enhanced.

### **Adaptability / Transferability**

This project could and should be readily adapted by other combinations of regional and territorial authorities in New Zealand. The one stumbling block that could hinder some regions is a lack of common boundaries between the constituent territorial authorities and the regional council. Taranaki Regional Council boundaries coincide nicely with those of Stratford and South Taranaki district councils. If this were not the case then there would be some logistical issues that would need to be resolved. However none of these issues would be insurmountable.

### **Conclusions**

Clearly the project has delivered on the organisational goals and strategic objectives for all three Councils. Public information is now readily and freely available to our communities.

The three Councils have changed the paradigm from people seeking information from the Council to the Council actively providing information into the public domain on a free and easy-to-use basis.

There a number of facets to this project that reflects well on local government in terms of working with their communities. These are:

- local government working collaboratively to share costs and experience as well as to avoid duplication of services
- local government recognising that communities do not understand or recognise authority boundaries both in regard to areas (both territorial v territorial and territorial v regional) and services (territorial v regional)
- local government taking the lead in working with other organisations within our communities to provide additional integrated information and services rather than simply focusing on their own information and responsibilities
- local government taking the lead in providing freely available information to communities rather than requiring people and organisations to come to the local authority and then charging them.

By every measurable facet this project was the good, sensible and right thing to do.

## Contact for Further Information

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