

CHANGING WORLDS: AMALGAMATION OF POLITICAL, TECHNICAL AND COMMUNITY ASPIRATIONS FOR DELIVERING WATER QUALITY OUTCOMES

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ABSTRACT

The Maungakiekie-Tamaki Local Board of Auckland Council has facilitated a suite of projects for water quality benefits in the eastern areas of the Auckland isthmus. At the closure of the first term of the amalgamated Auckland Council, it is interesting to consider how the new local government structure has facilitated improved outcomes for both communities and the environment.

Projects explored will include an outreach site audit programme offered to industrial sites in the catchment, community engagement events to raise awareness of the water quality issues in relation to the Omaru River, capture of ecological and engineering data for the open stream network of Omaru River, proposed options for improvement of stormwater discharges to the Omaru River and the Tamaki Estuary, and the successful implementation of planting via the WaiCare programme.

This paper will explore the synergies between the local board governance, the technical expertise of Council staff, and implementation through various mechanisms, from contractor to community and school groups. Observations and lessons learned will be shared.

KEYWORDS

Governance, implementation, amalgamation, environment, water quality interventions

PRESENTER PROFILE

Sue-Ellen's experience in Auckland stormwater includes catchment planning, low impact and stormwater treatment devices, industrial site stormwater and environmental management planning processes – all within the regulatory framework of the Resource Management Act. Sue-Ellen has worked in local government and the private sector, and is currently in the Stormwater Unit of Auckland Council.

1 INTRODUCTION

The Maungakiekie-Tamaki Local Board of Auckland Council has shown a willingness to play a leadership role in facilitating a suite of projects for water quality benefits in the Glen Innes and Pt England suburbs of the Auckland Isthmus. Council staff were supported by the Board to connect locally and regionally funded projects in order to maximise benefits to the waterways and the local community.

This paper will explore the synergies between the local board governance, the technical expertise of Council staff, and implementation through various mechanisms, to reflect on the successes and challenges arising from this approach to project delivery.

Projects explored will include an outreach site audit programme offered to industrial sites in the catchment, community engagement events to raise awareness of the water quality issues in relation to the Omaru River, capture of ecological and engineering data for the open stream network of Omaru River, proposed options for improvement of storm water discharges to the Omaru River and the Tamaki Estuary, and the successful implementation of planting via the WaiCare programme.

Challenges, as so often observed, arise around communication of ideas, and this is further complicated when people are passionate about their views. Time frames can also be challenging – especially when some projects take several years to come to fruition. However, the contribution of collaborative processes to the community, both in terms of environmental outcomes and in improving social capital, is a significant success. Council staff must be supported by management processes, and provided with necessary training, to operate in the increasingly complex environment of multi-dimensional projects, so that cross departmental collaboration can contribute to better outcomes for the environment and the community.

2 OMARU RIVER WATER QUALITY PROJECTS

The amalgamation of seven district and one regional council in Auckland in 2010 was in part designed to provide opportunities for improved delivery of outcomes to the communities of Auckland. Has this, in fact, been the case?

With the restructure of local government in Auckland, some functions were allocated to Council Controlled Organisations (CCOs) (local road networks and transport), some regional activity remains with the Council (including stormwater and environmental services), with local activity and budget allocated to the respective local boards for decision making and oversight (delivery of parks and open space programmes). During the first triennial of the amalgamated Auckland Council, the detail of how and where these responsibilities are split, and the construction of the necessary linkages and collaboration has been a focus of effort for staff and elected members alike.

In the Auckland Council co-governance structure, local boards are emerging as key players in local initiatives. In summary local boards govern local work programmes with significant budgets for local activities. The attributes that make the members of the local board such an important partner are their local knowledge and relationships, the ability to allocate funding to projects, and in the case of the Maungakiekie-Tamaki Local Board, a clear commitment to improving the quality of their local waterways.

The Auckland Plan identifies Tamaki North as an area for significant transformation in Auckland. The suburbs of Glen Innes, Pt England and Panmure were developed on the western banks of the Tamaki Estuary during the 1950s, as quarter-acre state housing sites. Over the last 10 – 15 years there has been discussion and planning for re-development of the Housing New Zealand (HNZ) land holding, and this has begun to come to fruition since 2012. The first redevelopment houses are being constructed now (February 2014) by a consortium under contract to HNZ.

A key feature of the area today is that the entire length of the Omaru River is open, and flows through Auckland Council owned parks open space through Glen Innes and Pt England. Apart from culverts under roads, the main branch is not piped for any significant length, and this combination of minimum piping and public land provides an ideal opportunity for restoration of the ecological values of this urban stream. This factor was identified and captured in the Auckland Plan, with the Implementation Addendum 2012, Addendum Table 4: Priority Locations – capital expenditure providing a line item “Omaru Creek Restoration Plan, expenditure 2012-2021 of \$2m, Growth Related.”

The Omaru River catchment covers an area of approximately 576 ha, and has a total stream length of 5.7 km and 1.1 km of piped channel. Figure 1 shows the catchment and the open streams.

Although the headwaters of the stream remain open in the upper, north-western slopes of the catchment, this was only one branch of the headwater sources. The larger headwater sub-catchment was the land to the west of Howard Hunter Ave, which was developed in the 1970s, but although this is lost, there is still significant value in having the smaller headwater catchment available in an urban environment. A major historical tributary, which is now piped through Tamaki College, drains the slopes to the south of West Tamaki Road. Reaches of this stream still exist upstream of Tamaki College, and also flow through public land.

The majority of the Omaru River catchment is in residential land use, and a significant proportion of this is owned by HNZ. Approximately 100 ha of the catchment is industrial and commercial land use, including the Glen Innes Town Centre, and land to the west of the railway line, and in the south west part of the catchment. Apirana Ave and Merton Road pass through the catchment, and these are highly trafficked roads with potential to generate contaminants.

Improvement of the water quality in the Omaru River will contribute to an improvement in the water quality of the Tamaki Estuary, an improvement in the in-stream ecology, and ultimately, in the ability to collect food – such as tuna (freshwater eels), whitebait, pipis and mussels.



Figure 1: Omaru Catchment showing open stream lengths

Since the release of the Auckland Plan, a joint Auckland Council–Government company, the Tamaki Redevelopment Company, (TRC) has been established to manage the redevelopment of Tamaki North. Their mandate covers community development and support, job growth and economic development, as well as the physical redevelopment of the significant HNZ land holding. The changes in land use resulting from this redevelopment will impact on the water quality of the Omaru River and are, therefore, considered in this paper.

Unlike the previous community boards, local boards have more substantial budgets and can lead the delivery of local projects as identified in their local board plan or annual local board agreement (part of Auckland Council’s Annual Plan). The Maungakiekie-Tamaki Local Board, with strategic and delivery support from Council officers, have initiated a number of local projects with a specific strategic focus on improving water quality in the Omaru River and the Tamaki Estuary. The projects have been a combination of education, inspiration and action, and have looked at both source and impact issues.

Key to the success of these projects has been the efforts made by Council officers to connect locally and regionally funded projects in order to maximise benefits to the waterways and the local community, and the willingness of the local board to play a leadership role in providing local connections.

The role of catchment planning for urban stormwater networks in Auckland is within the mandate of the stormwater unit of the infrastructure and environmental services department (I&ES) of Auckland Council. This unit is the amalgamation of the legacy seven local council stormwater groups, which operated, maintained and planned the urban stormwater networks. The discharge from the network requires consent in accordance with provisions of the Resource Management Act, and the provision and maintenance of the network is required to be provided under the provisions of the Local Government Act.

To effectively manage the stormwater network, and its discharges into the environment, council needs to understand rainfall quantity, runoff quality and ecological requirements of receiving environments. Stormwater catchment planning gathers together the information for each of these components and develops options to find solutions which will provide the best overall outcomes for the community and the environment.

To understand the flood impact of a range of rainfall events, up to and including the 100 year (1% Annual Exceedance Probability (AEP)) rainfall event, and the potential impacts resulting from climate change, Council carries out flood hazard computer modelling. The model results are used to produce flood maps, so that rules developed by Council's regulatory plans (currently the Air, Land and Water Plan and the Proposed Auckland Unitary Plan) can be complied with. The latest modelling and mapping for Tamaki North was completed during 2013, and is already being used by TRC to inform land use development.

To understand the water quality issues arising from stormwater runoff, contaminant load modelling can be carried out. This has not yet been done for the Omaru River catchment, however, given the collection of water and sediment quality data over the last 25 years in Auckland, there is a good understanding of the linkages between particular land uses and water and sediment quality. Further, on-going long term sediment quality monitoring, along with shell fish monitoring in the Tamaki Estuary has provided a good understanding of the issues in the Tamaki Estuary.

An on-line stormwater treatment pond was created in the early 2000s at Pt England Reserve, and options for further water quality treatment devices are under investigation on the basis of the land use. Of key interest is an opportunity to create a treatment wetland to cater for the largely industrial sub-catchment.

As described earlier, the headwater sub-catchment to the west of Howard Hunter Ave was piped and built over in the 1970s, with the loss of ecological habitat. The remainder of the second headwater sub-catchment provides opportunity for headwater ecological functions, although to date, these have not been quantified.

In order to fully understand the current state and potential improvement and restoration opportunities of the stream, Council commissioned Golder Associates to carry out a stream asset survey, which formed the basis for the Omaru Stream Watercourse Management Plan (Golder, 2013). The key catchment information is summarised in the Technical Report as Table 1, reproduced herein.

Parameter	Summary
Length	5.7 km of open stream channel, 1.1 km of piped channel.
Size of catchment	576 ha.
Receiving environment	Wai O Taiki Bay (Tāmaki River).
Catchment imperviousness	58 % of the Maungakiekie-Tāmaki catchment is impervious.
Substrate	Dominated by silt and sand mixtures with limited areas of artificially added gravel and cobble.
Bank stability (Pfankuch score)	Bank stability (Pfankuch scores) included 7 streams assessed as 'Fair', 18 streams assessed as 'Good' and 1 stream assessed as 'Excellent'.
Sediment load	Ranged from 32-100 % with four reaches with 100 % sediment.
Channel modification	Channel modifications were recorded in 23% of the stream reaches surveyed, and bank modifications were recorded in 8 % of the stream reaches surveyed. A total of 16 % of the stream channel was recorded as piped.
Visual clarity	This assessment was conducted under extreme low flow and often dry conditions, but clarity of remnant water was poor and cloudy.
Wetlands	2 wetlands were recorded within the catchment: a headwater wetland was identified at the top of Oma_trib12. A man made pond was observed below Oma_main2.
Vegetation	Riparian vegetation is dominated by exotic plant species although stands of remnant and replanted native species were recorded. Vegetative shade ranged from 0-100 % with an average of 50 % cover (i.e., average of 50 % overhead cover but ranging from 0 to 100 %).
Aquatic vegetation	Periphyton was observed in 15 of the 25 stream reaches, and macrophytes were observed at all sites. High macrophyte cover (>50 %) recorded at 3 sites.
Fish	Two fish species (banded kokopu and shortfin eel) were captured or observed during the stream survey.
Potential barriers to fish passage	Thirteen culverts were identified as complete barriers to all fish species. No natural barriers were identified.
Inanga spawning habitat	Inanga spawning habitat was limited to only ~50 m of stream mouth along the Omaru mainstem (Oma_sm_1).
Engineering assets	A total of 112 engineering structures including culverts and stormwater outlets were identified. Of these structures, ten outfalls were deemed unsafe.
Erosion at structures	Erosion was identified for 18 engineering structures, comprising 11 with slight erosion, 1 with moderate erosion and 6 with severe erosion.
Bank erosion	Generally good (~5 %) with one area of moderate erosion up to 40 %. One erosion hotspot recorded. Extensive erosion was observed in the watercourse near Howard Hunter Avenue.

Table 1: Summary table of findings from the stream walk survey

Important restoration opportunities which have been identified in the catchment are:

- Pt England stormwater treatment pond, online – needs renovation, and improvement of the fish passage through the pond
- An opportunity for inanga spawning habitat improvement and construction downstream of the Pt England pond
- Maybury Reserve could include a constructed wetland to deal with water quality issues from the industrial land
- Howard Hunter Ave has an open channel with severe erosion issues – this must be dealt with to prevent severe slipping of property, and reduce the discharge of sediment to the downstream environment
- Tamaki College has a large pipe through the school, which could be investigated for daylighting – this would provide conveyance and ecological benefits

In summary, the WMP supports that restoration of the stream should be carried out, but shows that contamination, including sediment derived from erosion of the streambanks is limiting in-stream ecology.

2.1 GIVING EFFECT TO TECHNICAL RECOMMENDATIONS

As previously noted, Council officers were able to connect locally and regionally funded projects in order to maximise benefits to the waterways and the local community. The local board budget is allocated to water quality projects, but the specific projects are able to be determined by the board, within their 3 year term. This provides a level of flexibility for them to decide on the best projects, understanding the local community's wishes, and with advice from staff. This flexibility, along with the willingness of the local board to play a leadership role in providing local connections allowed for funding to be provided for the wider Ko Au Te Awa projects, while also covering the industrial site visits and gaining benefit from a double-pronged approach.

Critical to this project was having the expertise and skills in engaging the local community and bringing them along as a key part of the process. These skills were provided by both Council officers and contractors and members of the community. For the Glen Innes community events have become a major part of building this engagement.

A skill which often goes overlooked is the ability to see connections between different work streams, and to think strategically about how their integration can be used to achieve improved outcomes. Using this strategic thinking approach to inform project design and delivery, key relationships can be identified and strengthened, collaboration can be used to maximise knowledge sharing, and truly integrated projects can be achieved.

In areas of complexity and 'wicked' problems, this strategic and collaborative approach is recognised as being crucial to the satisfactory resolution of issues. However, for this to work effectively across teams with different drivers and goals, the 'players' need to be trained to see these opportunities, and then empowered by management (and budgets) to work collaboratively.

Over the last few years, members of the community have become concerned about the state of the Omaru River. In February 2013 Auckland Council supported a local community initiative event called The River Talks. This event had a focus on raising awareness of the degraded state of the Omaru River and used arts, culture, history and science to engage with the local community. The event was very successful and led to a large local Hui held at the Ruapotaka Marae in Glen Innes, and attended by several council staff members, with the aim of identifying issues, values and solutions to improve the state of the river.

From this Hui, a further project was formed and a working group of local board members, community, students, local organisations, council and council contractors developed and delivered the Ko Au Te Awa (KATA) project. The student leadership in this programme was significant in its success. This project cumulated in four events that were community driven (with leadership from the students) and aimed to create a celebration that would raise awareness, build connectedness, create social and cultural significance, and encourage people to take positive action towards improving the quality of the Omaru River. Once again many forms were used to engage locals and this time it also included a restorative action of riparian planting.

Alongside these events an industry pollution prevention programme was conducted with all commercial and industrial businesses that have a local stormwater connection which discharges into the Omaru River visited. The purpose of the visits was to provide education and advice about each site's potential for pollution, the methods that could be used to help owners improve their on-site practices to prevent pollution.

The projects identified through the technical work for the catchment plan, Howard Hunter, Maybury wetland and the Pt England pond, are projects which require detailed investigation and design, the budget for the physical works is likely to be significant (100s of thousands), and is derived from the Council LTP budget programme. Justification for such expenditure requires the projects to be assessed via the newly formalized Gateway Process, confirming that the effects are derived from council's stormwater network, and are therefore, valid expenditure from the stormwater unit's budget. The implementation of the phases of project design and delivery will cover several financial years.

3 OBSERVATIONS

3.1 SUCCESSES

The key successes from this suite of projects are:

- increased community support and awareness for the Omaru River,
- Tamaki College student's learning and empowerment,
- improvements in internal relationships across teams in Auckland Council, and
- the benefits and empowerment for local boards since amalgamation

The level of community support for the River Talks, the Hui and the Tamaki College students, was a significant success. It demonstrates the strength of the community, their concern for the Omaru River, and their willingness to be part of the solutions. As a group, they have strengthened their own knowledge and resolve and demonstrated intrinsically important social capacity building.

The leadership by the Tamaki College students provided them with a valuable opportunity to develop and practice skills around coordinating people in this collaborative forum. The feedback they received – whether positive or negative – has provided them with learning experiences – more formally suggested as 'human capital building'. Most importantly, though, they have developed a network of friends and supporters across the community which will be of value to them both individually, and to the wider community.

The establishment and strengthening of internal relationships across the stormwater unit, environmental services, parks, local board services and community development teams in Council will add to the network building that is always on-going.

The recognition in late 2012 that there could be linkages between the Maungakiekie-Tamaki Local Board's goals for water quality improvement in the Omaru River and the work being carried out in the catchment planning began the process. The willingness of staff to collaborate contributed to the success of the projects described above.

This collaborative approach could be improved with better support from project management processes, which we believe will come with time, now that the initial integration of the legacy councils has settled down somewhat. But it is still down to individuals to be willing to share ideas and knowledge. The local board links and connections with the community were further strengthened through these projects, with an evident increase in trust from the community towards the local board and its decision making processes therefore contributing to the wider strengthening of the community and place.

Auckland Council holds an annual Consultation and Engagement Awards event – aimed at identifying and acknowledging the work carried out by council to improve the working relationship of council with the communities we serve. The work of council groups involved in Ko Au Te Awa was entered into, and won, the category for “Empowering Communities”. Given the positive experience gained by staff from dealing with the Tamaki College students, this award was particularly rewarding.

3.2 CHALLENGES

The key challenges were:

- relationships and their nuances
- time-scale and budget issues

The time-frames for some of the catchment planning technical work are long – stretching over multiple financial years, and sometimes crossing local body election years. Some of the projects also take time to come to fruition, due to planning, feasibility studies, consenting and detailed design. When a community is keen to have answers, it is frustrating for them to hear that they will have to wait several months or years for a particular outcome. In the case of the school students, some of them will have left school before the result is available.

Many of the institutional systems, particularly around budget accountability, require teams to be responsible for their own projects, and preclude ‘sharing’ of budgets across teams. However, as with the projects described here, there are often benefits, particularly to the Community, in Council teams collaborating to deliver outcomes. Where time frames are ‘out of kilter’ across teams which are trying to collaborate, it is difficult to justify delays arising from this into the management reporting, especially where it might cause project delays across financial years. There needs to be consideration of the ‘value to ratepayers’ derived from the collaboration, even where this might require flexibility in budget expenditure.

4 CONCLUSIONS

As staff members serving the local board, and the local community, how can we be better empowered and equipped to work genuinely with them to help them achieve their aspirations?

Working with a community means earning their trust, which can take more time than is allowed. However, communities are ready and willing to welcome council staff, as experts in our fields, when they are keen to be able to learn and avail themselves of the information being offered. This is more so where the local board is strongly integrated

with the community in question, and the trust that the community has for the board is conferred on the staff to a large extent.

When working with a large variety of stakeholders with many different backgrounds and vested interests there is often value in developing a code of behaviour at the beginning of these larger processes. One way of doing this would be to include a whakatauki (Maori proverb). This is a way of setting the tone for each meeting or event. For example *Naku te rourou nau te rourou ka ora ait e iwi* translates to *With your basket and my basket the people will thrive*. This refers to cooperation and combining resources or skills to work to a common goal. Another method for achieving a code of behaviour could be to develop and describe the tikanga (protocols or guidelines for behaviour and ways of working) that will be expected when working together.

The complex problems facing communities require that the competitive, silo'ed approach to operating, which has dominated governmental regimes in NZ for the last 30 years, must be replaced by a collaborative network approach, especially internal cross departmental collaboration. Staff across all disciplines must be upskilled as necessary to understand this way of working.

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REFERENCES

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