

# THE SOCIAL SIDE OF STREAM RESTORATION PROJECTS

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## ABSTRACT

On Auckland's North Shore approximately 70% of the area's streams run through privately owned land; the burden of this urban stormwater system falls on the private landowner. Is this understood? What gets the landowner involved in acknowledging the stream through their property and caring for this system as a key link in the urban stormwater network?

Initiated by Auckland Council, the Mid-Eskdale Stream Enhancement Project included three components of stream restoration associated with the Birkdale B sewer system upgrade. The restoration engagement was directed at 70 households surrounding a 1.3km long reach of the Eskdale Stream and the associated Council-owned reserve land. Some elements of the project involved compulsory landowner engagement, other parts were voluntary.

Locally the stream was perceived as being degraded, a conduit for debris and rubbish. Prior to the upgrade, issues with wastewater overflows had caused a rāhui<sup>1</sup> to be placed on this section of the stream corridor.

Is the stream the best element to engage residents in a restoration project? Using social research before and after what lessons can be gained from this two and a half year project? What's the best hook to use to motivate and engage residents to become involved in a stream restoration project in their own backyards? And then, after they are hooked, what do you need to keep them motivated through the hours of weeding, the planting and then the ongoing maintenance?

## KEYWORDS

**urban streams, stream restoration, streams on private property, social research, landowner engagement, resident engagement, sewer system upgrade, community engagement**

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<sup>1</sup> In Māori culture, a rāhui is a form of prohibition to restrict access to, or use of, an area or resource.

## **PRESENTER PROFILE**

### **Shane Butland**

Shane is a practicing Landscape Architect and Ecologist. During his time at DJ Scott Associates Limited he worked on several large, complicated Landscape Architecture projects focusing on resource consent applications, landscape analysis, site restoration, strategic planning, integrated catchment management planning, GIS analysis, ecological impact assessments and landscape visual assessments.

As an independent contractor he worked on Waitakere City Council's Sustainable Neighborhoods programme facilitating community based restoration programmes. He also had input into the development of the Waitakere City Council Best Practice Restoration Guidelines, which was prepared to assist community groups in taking the lead of their own restoration projects. During this time Shane was also the Wai Care West Auckland Coordinator, undertaking water quality monitoring with community and school groups and identifying restoration opportunities with these groups.

Since joining Thomas Civil and Environmental Consultants (TCEC) in 2012 Shane has spent most of his time undertaking the 'on the ground' coordination of the Mid Eskdale Stream Enhancement Project. He has worked on behalf of Auckland Council's Parks Department including in the preparation of concept and development plans for: Royal Reserve – Massey and Taipari Strand – Te Atatu. Shane has been engaged in a number of consent reviews for Auckland Council (focusing on ecological matters). He has also been one of the lead field botanists for Auckland Council's RIMU Wetland monitoring team, setting up wetland plots throughout the Auckland region.

## **1. INTRODUCTION**

The Mid Eskdale Stream Enhancement project (MESEP) was undertaken from 2012 through to 2014 within the lower section of the Eskdale Stream Catchment in Birkdale.

This stream enhancement programme was proposed by North Shore City Council in 2010 and initiated by Auckland Council in late 2011 with engagement of residents starting in early 2012 and continuing until 30 June 2014. The Mid-Eskdale Stream Enhancement Project was the fifth such project utilising community engagement methods and an integrated planning approach in the North Shore area.

This paper outlines the strategies used to engage residents in the restoration project and the methods used to retain their involvement over the projects lifetime. Social research was undertaken at the start and end of the project to ascertain residents' attitudes to stream restoration and how they perceived the issues.

## 2. PROJECT BACKGROUND

The former North Shore City Council identified that naturalised stream systems are effective in reducing the adverse effects of stormwater, from both a quantity and quality perspective, and may provide long-term savings on infrastructure costs. (North Shore City Council 2011).

Stream enhancement in this area of Auckland focused on naturalising stream environments, providing access and recreational opportunities, recognising cultural and amenity significance of streams, and recognising the intrinsic value of stream ecosystems. This can involve stabilising stream banks to minimise erosion, creating fish passage, weed and pest management, increasing permeable surfaces in catchments, providing public access and transit links along streams, and providing interpretative signage (North Shore City Council 2011).

With the aim of achieving successful stream restoration and active engagement of residents, North Shore City Council initiated a city-wide programme for enhancing streams on public land in 2008 (North Shore City Council 2011). The focus on enhancing stream environments stemmed principally from North Shore City Council's Network Discharge Consent Project (Project Care), Stormwater Strategy and Integrated Catchment Management Planning (North Shore City Council 2011). This programme resulted in five stream enhancement projects; the Mideskdale Stream Enhancement Project was the fifth.

Through research into stream restoration projects with residents North Shore City Council (2011) identified early that there is little point in enhancing streams on public land if private land is not enhanced at the same time. Subsequently the model of engaging private landowners whilst undertaking complementary work on public land was instigated (i.e. a demonstration of council "walking the talk"). This proved to be highly effective for engaging residents, particularly those already motivated towards participating in environmental enhancement. However, the proportion of residents who are ready and willing to act is very small compared to the total number of residents who have a stream on or bordering their property (approx. 7000 private properties).

North Shore City Council (2011) identified that research repeatedly shows that of a total population, there will always be:

- Approximately 20% who are 'dormant' and will never be drawn into positive environmental behaviours no matter which techniques are employed;
- Approximately 20% who are already engaged or motivated to act; and
- Approximately 60% of the population who have the potential to become engaged in positive environmental behaviours, assuming the appropriate methods are utilised to instigate behaviour change.

## **3. THE MID-ESKDALE STREAM ENHANCEMENT PROJECT (MESEP)**

### **3.1 PROJECT LOCATION**

The Eskdale Stream is a stream that has high ecological and heritage value, it is also highly valued by the local community for its amenity value and numerous, well-used walking tracks in the riparian bush areas (North Shore City Council 2011). The stream is 15.2 km long and flows into Kaipatiki Creek, Hellyers (Oruamo) Creek and the Upper Waitemata Harbour. Sixty two per cent of land in the Eskdale Stream catchment is residential and erosion is an issue at some stormwater outfalls along the stream (North Shore City Council 2011).

### **3.2 PROJECT VISION**

The vision of the Mid-Eskdale Stream Enhancement Project was to foster:

***Empowered residents and other stakeholders actively engaged in stream restoration on private property and surrounding public land, with the knowledge and capacity to continue improving the local environment beyond the scope of the Council project (Auckland Council 2011).***

Specific objectives of the project included:

- Enable a targeted group of private residential landowners to restore the riparian margins (and thus improve the stream) on their land through practical assistance, advice, support and education
- Enhance the communication aspects of existing capital works programmes (watercare birsdale b sewer upgrade) by providing an integrated approach to communicating all council work in the target area
- Raise community awareness of and action for:
  - The need for and benefits of stream enhancement
  - The role of stormwater in the natural water cycle,
- Enhance local biodiversity and stream habitat in the target area
- Increase private landowner involvement in environmental protection and enhancement
- Engage local community stakeholders (schools, community groups) in project opportunities (auckland council 2011).

### **3.3 BIRKDALE B SEWER UPGRADE**

This project provided the primary impetus for MESEP. The Mid Eskdale Stream Enhancement Project was the final stage of the Birkdale B sewer pipe upgrade project. This project was begun by Watercare and called the 'Birkdale B Catchment Sewer Upgrade'. The work involved installing 3.3km of gravity sewer pipe from 500-1050mm diameter primarily by micro tunneling and horizontal directional drilling (Watercare Services Limited 30 June 2011).

Birkdale B works involved the removal of a number of exotic trees in Ridgewood Reserve (part of the riparian corridor) and works on private properties (those within the Birkdale B work area). The MESEP was leveraged off this project as it provided an opportunity to bring a wider benefit to the reinstatement process. The Birkdale B sewer upgrade met the criteria originally developed by NSCC for identification of stream enhancement projects as it provided for infrastructural work on a mixture of private and public land. This provided an opportunity to demonstrate best practice approaches and have a community space to bring people together to engage local residents in stream enhancement activities and develop ownership of Eskdale stream.

### **3.4 THOMAS CIVIL ENVIRONMENTAL CONSULTANTS INVOLVEMENT**

Auckland Council provided a request for proposals for the MESEP in December 2011. Thomas Civil and Environmental Consultants prepared a successful tender for this project and began work door knocking residents in the project area in March 2012.

Delivery of the project involved three key factors:

- a. A targeted and intensive community engagement programme to encourage landowners to undertake stream restoration on their own property (70 properties in total)
- b. Stream restoration, particularly the planting needed to restore stream banks post the Birkdale B sewer upgrade works (15 private properties affected and part of Ridgewood Reserve)
- c. Community engagement of stakeholders including the owners/occupiers of the 16 properties surrounding Ridgewood Reserve, Verran School and Kaipatiki Project.

Project delivery involved undertaking baseline social research to ascertain resident's perspectives of Eskdale Stream and its restoration. Door knocking of all properties identified in the project areas was completed, some properties were visited a number of times in order to meet with residents. Connections were made with other stakeholders, such as Verran Primary School and local environment centre Kaipatiki Project.

Two staff were initially engaged to deliver the project on the ground, this was then reduced to one who was able to oversee the delivery of support and the provision of resources for all residents.

A third staff member was tasked with managing the project. This role focused on liaison with council, the monthly reporting of project deliverables, dealing with contract issues and health and safety.

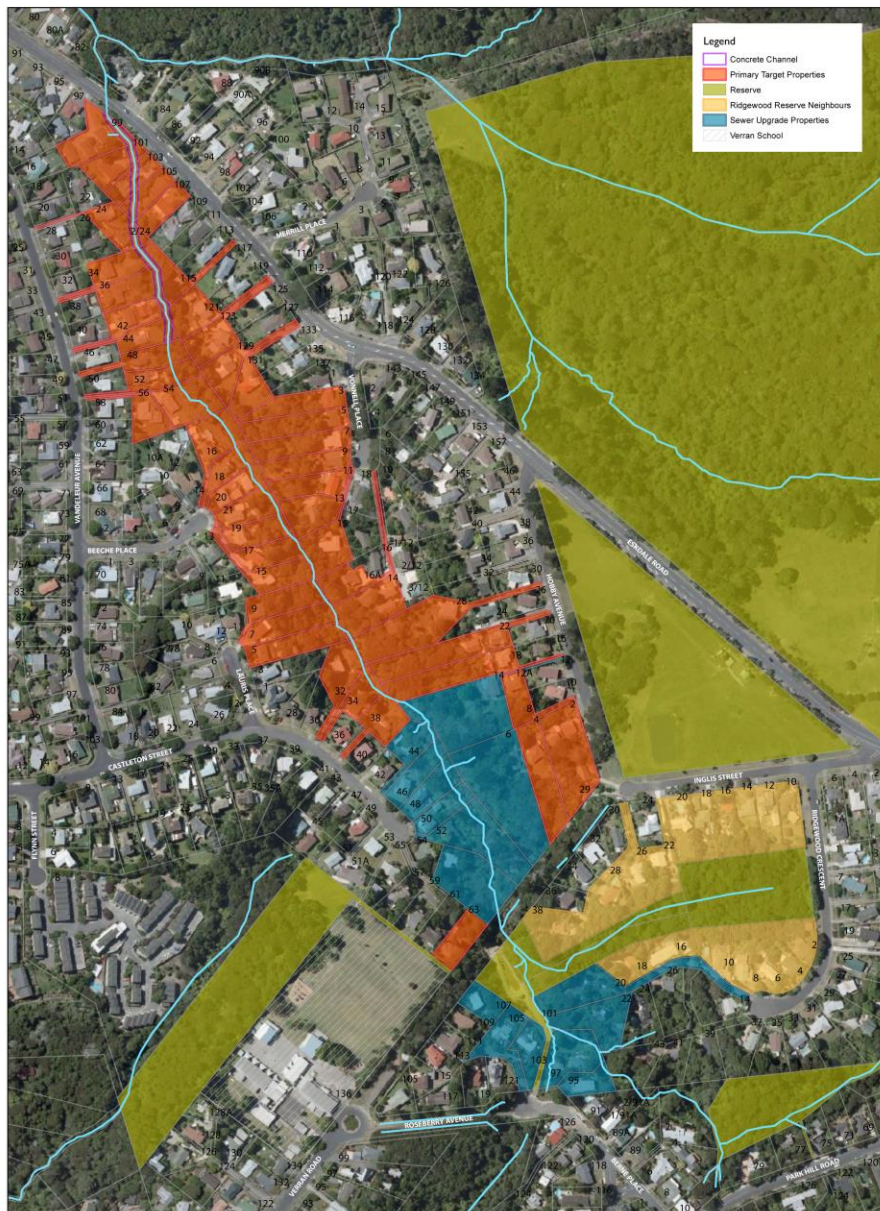
Subcontractors were engaged to undertake weed control and planting work for the Birkdale B component of the project, they also provided support for public planting days.

Social research was carried out by two contractors, one at the start of the project and a

second at the end of the project. A communications specialist was employed to undertake preparation of publicity material, print and online, and coordinate graphic design of this material.

### 3.5 PROJECT AREAS

As well as the area affected by the sewer upgrade (the Birkdale B properties) other areas were a part of the project. These were the 'primary target' properties downstream of the works, Ridgewood Reserve, and the properties backing onto Ridgewood Reserve (Figure 1. Project Map).



Mid-Eskdale Stream Enhancement Project area map

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Fig.1 Project Map

### **a. Birkdale B Properties**

There were 15 properties identified as being directly affected by the Birkdale B sewer upgrade project. These properties were subject to earthworks, directional drilling of new sewer line and some vegetation clearance. The central area of Ridgewood Reserve also received major works as part of the sewer upgrade; this resulted in a large number of mature exotic trees being removed from the flood plain for works to occur.

Restoration work for those affected by Birkdale B was covered in full by the requirements of the Resource Consent. This provided funds for contractors to undertake all weed control and planting on affected properties up to 5m from the riparian edge. It also provided for contractor weed control and planting assistance within Ridgewood Reserve. Residents affected directly by the Birkdale B component of the project were asked if they would allow contractors to undertake weed control and planting on their properties along the riparian margins of the Eskdale Stream. Residents were under no obligation to provide permission, all residents gladly allowed the project to be undertaken on their properties.

Due to this engagement method residents from Birkdale B were not included in the social research component of the project, as they were not being asked to physically or actively engage in the weed control and stream restoration process.

### **b. Primary target properties – Stream restoration primary target area.**

These properties were not directly affected by the sewer upgrade, but were downstream of the works and have the Eskdale Stream running through or bordering their backyards. Most of these properties had downstream effects of weed species spread; ginger, tradescantia, Elephant grass and willow. Practical support was provided for these properties in the form of expert advice and assistance for weed control, planting plans and plants. The residents were engaged to undertake the weed control (directed and assisted by expert advice) within a one year period prior to the first planting season, and after planting to achieve weed free areas to ensure any plants planted would be able to establish successfully.

These residents were approached to be involved in the initial and final social research workshops.

### **c. Ridgewood Reserve Properties**

These properties back directly onto Ridgewood Reserve, a small almost self-contained catchment featuring mature totara, maire, kahikatea and kauri and an understory of weed species. The residents were engaged in a similar way to the primary target properties, with the same focus on residents undertaking weed control work and planting of plants provided by council.

These residents were approached to be involved in the initial and final social research workshops.

#### **d. Ridgewood Reserve and Castleton-Reid Reserve**

The sewer renewal project in Ridgewood Reserve resulted in the area being a 'no go' zone for almost two years whilst works were undertaken. Ridgewood Reserve provides key walking connections for residents with children at Verran Primary School and for those who actively walk or run around the area. The shutdown of Ridgewood Reserve had the effect of disconnecting people from the stream and the reserve.

Prior to the start of the Mid-Eskdale Stream Enhancement project Ridgewood Reserve was again open for people to walk through. The works in the reserve provided a platform for the MESEP and an almost blank canvas for the first season of restoration planting. A community planting day and school planting day were used as a way to welcome residents back into the reserve. The planting was completed during the winter of 2012, these initial events allowed for a very public display of the projects objectives.

Castleton-Reid Reserve, located adjacent to Verran Primary School was an additional area covered by the project. Assistance and support was provided to Verran Primary School, as the caretakers of this reserve, to assist in weed control.

### **3.6 WORKING WITH COMMUNITIES**

Working with our communities to enhance streams and riparian margins is a smart way of optimising natural stormwater management - it makes sense to use what nature has already provided. Streams provide a natural flow path and filter for stormwater that eventually flows out to our beaches. A well-managed stream looks good, provides habitat for fish, contributes to improved beach water quality, and will potentially provide long-term savings on infrastructure. As 70% of the streams on Auckland's North Shore flow through private properties work must be undertaken with the residents in order to fully protect and enhance riparian corridors. Unfortunately research by NSCC showed that residents felt very strongly that the council was not leading by example – not enough was being done on public reserves, parks and streams (North Shore City Council 2011).

Research conducted by the former North Shore City Council identified that the best approach to facilitate working with the community was to employ a project leader who can be the consistent contact point working directly with small-targeted communities. The research results also showed that this person needs to be; someone who is friendly, helpful and supportive; someone who can act as a facilitator and connector to other experts and opportunities (North Shore City Council 2011).

### **3.7 HOW TO GET RESIDENTS HOOKED**

Many residents are passionate about and interested in work with an environmental focus. In any area where stream enhancement activities may be targeted, Scott (2007) states that there will always be interested stakeholders to consult and collaborate with. When undertaking a project of this nature the questions to consider are:

- Who are our stakeholders in the area? It is important to think beyond just environmental stakeholders but also community leaders, churches, residents and



business groups, schools, social agencies etc.

- Are there any existing stream enhancement or environmental champions in the area?
- Are there opportunities for partnerships and/or collaboration? In many instances there may be a local school or group that would be keen on being involved in a community project.
- How could interested parties work together?

As shown by Bowden (1999) in Scott (2007) behaviour change, knowledge and capacity building are needed at all levels of society to achieve improved environmental outcomes in urban catchments.

Capacity building for environmental outcomes is closely linked to community engagement and one supports the other. In particular it was identified that:

- Appropriate language is essential (balancing simplicity and accuracy)
- Building social capital builds resilience in the community
- Relationships and trust must be actively fostered and developed (built on transparency)
- Trust among group members and with local authorities is important
- Spending time together to bond (Vanderburg 2001 in Scott 2007).

As mentioned above a committed and capable group leader (or leaders) was essential for groups to engage, inspire and demonstrate good practice, and ultimately achieve good outcomes.

### **3.8 THE ENGAGEMENT PROCESS**

TCEC utilised the following process to engage with and work with residents and the wider community.

#### **a. Initial contact via phone, email, letter or flier.**

This was used as the warm up to let residents know that we would be getting in touch soon. It is usually easier to engage someone about a new project if they have seen a letter, email or flier about the project before you meet them in person. They may not have looked closely at the information sent out, but at least it gives a reference point to start from. It is also useful for the resident as it allows them to think about the idea of being involved in the project before they meet you face-to-face.

#### **b. Door knocking**

Every household in the primary target and Ridgewood Reserve areas were door knocked at least once. Door knocking is a difficult task. It can be hard to find the right time when people are at home and invariably not everyone will be at home when you are out in the field, so a few visits to the area at different times of the day and or week may be necessary. Some residents won't want to meet you and may even hide; usually these

people don't want to be involved in the project! We found about a quarter of the residents were either not interested in the project or were not contactable.

Those who showed an interest in ongoing involvement in the project were asked for a meeting time on site to discuss their weed issues and any other concerns around the stream.

### **c. Onsite meeting**

The onsite meeting is a great way to build on first contact with the resident. It is a great opportunity to view the property, see what issues may be at hand, and talk through the project and how it can help the resident with the issues that have been identified. This visit also provides the base information for putting together the weed management plan, which then guides the restoration process on the property.

### **d. Preparation of weed management plan**

The weed management plan identifies the areas where weeds are, outlines the appropriate weed control methodologies, and gives a weed control timetable.

The weed management plan is designed as a crash course in the complexities of ecological restoration. There are a lot of elements to consider when restoring an area, especially riparian margins. The weed management plan aims to provide a break-down of the process as simply as possible without overwhelming the resident. . There is a lot of information to cover but keeping it direct and simple is the best option. This in combination with having an expert they can talk to about the process helps to make things more manageable and to break down the complexity of the process. Thirty weed management plans were developed for interested residents. Almost 3,000 plants were provided to residents as part of the project.

### **e. Wider project communications, including newsletters**

A communications specialist was engaged and was an important part of the project team producing regular newsletters, articles in the local newspaper, promotional material for events and setting up and running a Facebook account for the project.

The single-sided A4 newsletter (11 were produced through the project) was distributed all residents and external stakeholders and were a key tool in celebrating the uniqueness of the neighbourhood and its stream, highlight the project's development and celebrate its successes in an in-depth way to engage the local community. These newsletters were valued and kept by many residents.

The Facebook site (now inactive) was followed by over 40 residents, however interestingly those involved did not rate it as informative as the 'hardcopy' newsletters

## **3.9 WHAT'S IN A NAME?**

Using the right name can be a key way of engaging residents in a project.

Research by the former North Shore City Council, as part of the Stream Enhancement

Pilot projects, identified that the proposed project name, Backyard Biodiversity, did not have a lot of meaning for residents and the project was subsequently renamed (Yarrow & Shrubshall 2005 in North Shore City Council 2011). This is a reminder to use appropriate language that balances simplicity and accuracy.

For the Mid-Eskdale Stream Enhancement Project the name was provided as part of the original tender and was not changed for the project.

Feedback during the final social research investigation identified that most residents called it the Mid-Eskdale Stream project. This research also revealed that despite being a geographically correct name it didn't provide a strong emotional connection to the area.

The social research identified that it is the reserve – trees, birds, path – not the stream that more people engaged with both emotively and practically (Shannon Brown & Associates 2014). This included residents who do not live close to the reserve- ie they engaged with the native trees, the birds (in particular the Tuis), and the ducks & eels.

The important message from this is that an emotive connection, represented by a project name, can be an important motivator for people becoming involved. In other words, if people don't associate positively with a rubbish infested and polluted stream that exists somewhere in the backyard, then they are unlikely to be enthusiastic about getting down there and helping to clean it and its surroundings. But if they feel connected to the birds or the trees and that these need their help, then they are more likely to be enthusiastic to be involved in a project that supports them.

There is more to a project than just its name, but it can be the first thing that people encounter. The ideal situation for a project such as this is if the residents in a project area have an opportunity to generate their own project name, this then provides a strong connection.

### **3.10 HOW TO KEEP THEM HOOKED?**

#### **a. Key personnel**

Research by the former North Shore City Council and social research associated with this project repeatedly identified that a consistent, friendly, approachable and enthusiastic key contact person is required to maintain community involvement. This should be someone who can help with hands on work, to demonstrate specific tasks, and to show the residents that they too are interested in achieving the goal. Working with this person provides the opportunity for the resident develop a vision of the outcome of the work through involvement in the planning and design of the restoration of their backyard. There is also an opportunity for residents to learn new skills such as plant identification.

Letters, email and phone conversations are great to keep in touch with people, but when building relationships with residents, face-to-face communication is the best. It allows trust to be developed between parties and for the restoration area to be examined together and discussed. Trust is the key; it provides permission for the project to proceed.

Many people may feel embarrassed about the state of their backyards; it is important that

the key contact person for residents reserve their judgment about a resident's property, especially if it is initially very weedy. Being approachable and non-judgmental are key qualities, as this will enable the positive facilitation of relationships with residents.

Respect and flexibility goes a long way. Respecting resident's plant preferences, and being flexible when it comes to native and exotic species is important, there is little value in being a purist who will only accept native plant species if this will prove to be a disincentive for residents engaging with the (project) key contact person. Flexibility around weed control methods must be provided, some residents will be happy to undertake a herbicide control programme where as others will not want to use chemicals and or have them used on their property. For other residents flexibility around staging of restoration may be more valuable for them in the early stages. They may want to simply observe the project from a distance for a while and join in later – these people may not be early adopters but visual evidence of success and experiential awareness raising will occur from neighbours experiences. This is why the longer the better for these projects 2 years plus.

Being practical is also a great way to show residents that the key contact person is serious about the project. If you can roll your sleeves up and get stuck into the work with residents this will help to build a stronger relationship and provide an ideal situation to share knowledge and anecdotes about similar restoration activities.

Being proactive is another important quality. This project involved work on both private and public land. Some residents will perceive Council as letting down the side by not undertaking their obligations on public land. To ensure that this doesn't happen in a project like this, it is important to address any infrastructural or safety issues that develop or exist in nearby/adjoining reserve areas. One of the bridges within Ridgewood Reserve needed the repair of a number of treads, this was identified early and service request made. Council undertook repairs to the boardwalk and a number of residents who used the track to walk their children to and from school commented positively on this replacement work. This shows that Council is committed to achieving positive outcomes just as much as the residents are. The key contact person should always address any issues that arise and request that Council deals with these issues as soon as possible. There must be a willingness to proactively remove the barriers to stronger engagement, even if it has no impact on the projects physical objectives for restoration. For example in an earlier NSCC project, the residents were much more concerned with the issues around their waste collection. This issue prevented any meaningful conversation around the stream. When the waste issue was solved residents had evidence that Council meant business and were truly genuine in wanting to partner with the community.

By building a strong relationship with residents through onsite meetings, shared working bees, follow up site visits to assist with weed control issues or planting layouts, residents began to be motivated to achieve quality outcomes for themselves and their property. We also found that they did not want to let down the key contact person either, and that the next scheduled visit was good motivation for getting the job done.

Finally it is critical that the key person(s) remain consistent throughout the project (if at all practical), continuity of knowledge of the project and the bonds that form with the

residents is essential to the success of the project.

Some comments from the final Social Research about key contact person (Shannon Brown & Associates 2014):

- Enlightening and engaging
  - *"Found out weeds were actually native plants! I had been weeding them out. Shane pointed out things to me that actually beneficial. And some plants I left to grow that were not beneficial"*
  - *"He said a lot of good stuff about what we already had. Made me want to protect and maintain it"*
- Positive re manner/attitude: *"Not imposed. There to help. No pressure or pushiness"*

This created an important impact = Left feeling positive about their backyards, especially those who had been less engaged

#### **b. Communication methods once engaged**

As well as the project newsletter and other communications outlined above, to keep in contact with residents in between weeding and planting events and keep motivation up ongoing emails were sent to each engaged resident. Each email was tailored to the recipient and was appreciated; people liked receiving these as they were not generic and were motivating. They kept everyone up to date with new developments or planned activities (such as resolution of issues, community planting days, guided walks around the reserve to track progress, weeding bees, follow up visits etc.). This ongoing communication reassured them that they were not forgotten and kept them involved. Because of the relationship developed between residents and the key contact person, many happily responded to these emails with personal updates and queries, which helped further in fostering a positive working relationship between the parties.

Ongoing interactions and communication with the key contact person also aided residents in building an appreciation for what they have in their backyards. Many residents developed a real sense of pride, with a desire to preserve the planted areas as weed free for many years to come.

In short having this ongoing personal communication motivates people as it shows them that someone else appreciates the work they are doing and what they have achieved.

A monthly newsletter was also produced; this was printed and sent to all residents in the project area. This provided general updates as to what was happening each month and highlighted a weed species to look out for. It also provided opportunities to show case residents doing great work, which helped to provide motivation for others.

## **c. Other activities**

### **i. School planting days**

Throughout the project school planting days were undertaken each winter on Reserve land. This provided an opportunity for the local Primary School to contribute to the overall restoration project. The school planted 1655 plants in Ridgewood Reserve and 459 in Verran Road Reserve. Many parents (and residents of the area) came along and helped out with these planting days. Many of the students walk past their plantings to get to and from school each day, which helps to reinforce a sense of ownership of these areas from a young age.

Verran Primary School had long been involved in restoration activities through its involvement with Wai Care. Unfortunately the rahui (in 2006) and sewer upgrade works brought a hold to Wai Care involvement.

It is important to stress that working with schools relies on (a) an enthusiastic contact person and or buy-in from school management (b) a long-term approach to involvement – can it/is it a part of the curriculum and (c) being realistic and gracious about planning in advance with them. Schools are often taken for granted and treated as cheap labour at the end of the project. It is much more rewarding and meaningful if this is not the case.

### **ii. Community planting days**

Two community-planting days were undertaken in Ridgewood Reserve, these events helped to bring residents from the project together. These days also helped to provide some residents with more of a sense of how to plant at their own properties.

These events gave neighbours a social platform to discuss the wider project and share their experiences with each other. These events provided for neighbours to meet each other and connect, this brought about new friendships between both parents and children.

### **iii. Weeding bees**

Five weeding bees were held on public and private property, these aimed to assist residents in the identification of weed species and weed control methods early in the project. They were usually attended by small groups of residents who lived near to the weeding bee location. The events also helped to bring neighbours together around a common goal and provided an excuse/ way for them to work across each other's property boundaries for the greater good.

### **iv. Ridgewood Reserve guided walks**

As part of Ecofest 2012 and 2013, guided walks were run through Ridgewood Reserve. The purpose of these walks was to advertise the restoration project to the local and wider community, to show them what had been going on. It was a great opportunity for those from near and far to see the transformation in the Reserve.

The hook for people to attend was the presence of Wai Care and the freshwater fish expert, which showed the often-invisible life that exists in the stream. These events were educational opportunities as much as anything! As previously noted often the hook is the life in the environment this idea was again used to build up an appreciation for the function of the stream as a home for other creatures.

#### **v. Final Celebration BBQ**

To bring the project to an end a final celebration BBQ was held. The venue was provided by one of the residents involved in the project and many people were keen to be there. It also provided one last opportunity to do some planting on the edges of Ridgewood Reserve before the project was over. The event also included an installation of a commemorative art project created by the children of Verran Primary at the entrance to Ridgewood Reserve. Many people saw this event as the reward for all the hard work, and as a great opportunity to reconnect with everyone and provide some formal closure to the project.

Celebrating the success of all the hard work both on an individual and collective scale created a collegial sense of wellbeing and provided ongoing momentum – this event was used it as an opportunity to create commitment for ongoing work without the intense support of the Council project

#### **d. Rewards**

'Rewards' for being involved initially and for ongoing hard work helped to provide additional motivation for residents to stay involved in the project. The rewards were useful items that supported the residents in achieving their goals. Many residents realised the huge value they were receiving: a free weed management plan, advice when needed, weed bags, and plants. Many felt these rewards were very motivating, as they understood the value of time and resources that were being invested into them and their properties.

#### **i. Weed management plan**

The scale of this project allowed for the development of property-specific weed management plans within the primary target area and those adjacent to Ridgewood Reserve.

All residents that showed a real interest in being involved in the project received their own management plan which identified and located the weeds on their properties, and methods of control. Many residents recognised the value of such a document saying that "To commission someone to do that would cost a small fortune". The management plan was designed to be as comprehensive as possible, without being too overwhelming. With the provision of these management plans many residents realised that this was a serious project for them to be involved in. They were provided with something "Really tangible, that really were going to do something". These plans aimed to clarify what should and shouldn't be done: residents commented that the plans told them "What to attack, what not to attack", and the plan pointed out exactly what the problems were "and How to

solve them by identifying what had “most priority and least priority” it “gave you starting point” (Shannon Brown & Associates 2014).

Despite such positive comments some residents do admit to only doing a skim read. This is understandable, for some this is all new information, which can be a bit overwhelming.

## **ii. Weed bags**

Weed bags were an important enabler, and 51 were distributed to residents as part of the programme. For residents they provide somewhere convenient and safe to put weeds that they have gathered on their property. The weed bag allows the weeds to be locked away from moisture and light to enable them to die and breakdown onsite. This prevents these weeds from being able to reinvade areas that residents have spent time and energy on clearing. Additionally all weed material is broken down and becomes rich compost that can then be used back in the garden.

The simple weed bag was a greatly appreciated tool. This residents comment was typical “It’s my first experience of Weed Bags so I was a bit dubious if they work. They do! Made some beautiful compost”. Was the word spread as to their usefulness this was one of the most requested form of assistance provided. These weed bags are large holding 4m<sup>3</sup>, however they can fill up quickly if a lot of weed material is present. For larger properties involved in the project, up to XX bags were provided. The simple weed bag was a greatly appreciated tool. A resident commented that it’s *“My first experience of Weed Bags so I was a bit dubious...”*

The only issue is that even though they are big, 4m<sup>3</sup>, they can fill up quickly if a lot of weed material is present. For large properties or projects many bags may be required. And it is best to put them where they are needed and wanted, as they cannot be moved once full.

The use of a weed bag to essentially store your removed weeds on site until they compost is a new idea to most. Many people are hooked into the idea of rubbish being taken away. In this case the waste is a resource that just needs a few months to a few years (dependent on weed bag location) alone to be realised.

Weed bags were used within Ridgewood Reserve. This was for practicality, i.e. not having to expend the effort and expense of carting away weeds off the site, and as advertising for the project. The presence of these large black bags full of weeds helped to show residents in the project area and wider area that something was happening. This coupled with the disappearance of the weeds into the weed bags helped to promote the project to others who had not quite signed on in the early stages. The compost from the weed bags in the Reserve was used by Verran School as part of their ‘Garden to Table’ programme.

## **iii. Planting Plan and free plants**

For all residents that became involved in weed control on their property a planting plan for replacement native species was generated. Developing the planting plan involved



discussing with residents what they would like to see in their backyard, whilst emphasising the potential ecological benefits from this habitat creation. The plan enabled plant numbers and species selection to be organised. A local ecosourcing-certified nursery then supplied plants paid for by Council. The number and quality of plants provided were very appreciated by residents – a reward of free plants after all the hard work they had undertaken to clear their back yards.

#### **iv. Follow-up site visits**

These were conducted to provide residents feedback following planting. Visits were conducted approximately 3 months after planting to see how things had established and identify any potential weed reinvasion issues. It also provided an opportunity for residents to show off all their hard work to someone who had seen the progress from start to finish. Many had a rightfully earned sense of pride at what they had achieved, not only the planting but also the weed control work that lead up to the planting stage.

### **3.11 RESIDENT FEEDBACK POST PROJECT?**

#### **a. Feedback on how the project was run**

Residents felt that TCEC provided very positive engagement. Through the social research they commented on the project being very professional and well run. They found the team from TCEC to be very helpful with good follow through on any issues.

As a contractor delivering the project TCEC was one step removed from Auckland Council. This structure made it easier for some residents to be involved in this project, as many people are concerned about having Council staff on their properties. TCEC was able to ensure service requests were made to Council to maintain or upgrade Council assets that were in disrepair in the reserve areas and ensure that this work was undertaken. This had the outcome of improving the perception of Council by ensuring work on Public land was being undertaken as required.

TCEC were seen as the experts, the ecologists who were able to provide the right advice to residents. The contract provided TCEC with the ability to access a small budget for plants and supplies to assist weed control activities. This enabled all activities of the project to be well resourced, which further assisted in the project being viewed as well run and professional.

#### **b. Feedback on what the community has achieved**

From our social research and follow up with the neighbourhood since the end of the project we have found that many residents now have a strong sense of accomplishment and satisfaction; as plants grow and establish more and more each year they can see the impact of their work. Many are looking forward to seeing it grow and now have concerns about those who were not involved and those who did not work on weed control.

All have learnt skills; composting; identifying weeds; planting. And many have developed confidence in restoration techniques through direct experience, are now confident that

weed control is achievable, can be successful and that in the right circumstances (and with proper and efficient application) used in the right way) herbicides really do work.

Many parents are now walking children to school twice daily and have asked for a bench seat "Every now and then, to sit and listen to birds" this would provide added value for the reserve they have helped to recreate. Many have also asked for more extended walking tracks to explore the reserve further.

There is a heightened awareness that the bush needs their help. Some said that it "Proves Mother Nature needs a hand. If we leave the bush alone, Wandering Jew, Wild Ginger takes over very quickly" (Shannon Brown & Associates 2014).

Residents involved during the final social research round asked if there were similar projects happening elsewhere? Being informed that this project was rare it was evident that they had a greater sense of pride in their achievements and an improved appreciation of the project and its uniqueness.

### **3.12 AFTER THE PROJECT**

From what we have seen to date residents want to keep impetus of the project and to continue with restoration on their properties and in their neighbourhood. They hope that council will continue to do their bit and keep on top of the weeds in the reserve just as they intend to stay on top of any weeds in their backyards.

For their part a community group has been formed – Verran Ecological Restoration Group – supported by Kaipatiki Project and concentrating on upstream reserves to stem the tide of weed reinvasion.

## **4. CONCLUSIONS**

The Mid-Eskdale Stream Restoration project was a geographically and socially diverse project that called for different engagement strategies for the various target areas. The project's two year run allowed for the positive engagement of many local residents in a restoration process that they are now starting to see the results of. Initial engagement is the most daunting part of such a project, there is likely to always be 20 percent of the population who will show no desire to be involved. However there will be 20 percent who are interested from the outset and another 60 percent, who over the life of the project may become involved as they start to see positive things happening in their area.

The two year time frame for the project was not ideal, there should have been a longer commitment. After two years of working with residents in the area real momentum had been generated, if the project had continued for another year or two it would have been easier to have capitalised on this momentum.

Keeping people involved in longer term projects such as this is very important for the desired results to be achieved, (generally speaking 3-5 years is needed for restoration planting to become established and maintenance needs diminish). Ongoing communication and activities to provide learning opportunities and connection between

the project team and residents throughout the year is key to building relationships and skills overtime.

Other learning's from the social research identified that some of those who didn't engage confessed they would have been more likely to engage if we had come to them with more ways to join in, i.e. they were more interested in getting rid of rats.

One of the key lessons learned from this project is to try and find an emotionally engaging name for the project, it's important to engage people at this level as they are more likely to feel compelled to be involved if the project is aiming to assist with something that they can easily relate to.

Beyond this initial engagement it is providing the ongoing connection by the way of the key contact person, the newsletters, the educative components, the creative engagement through the student's art that keeps people involved and active in the project. Other important elements to consider are:

- Keeping people constantly informed,
- Being flexible and proactive about people's issues and having a commitment to removing barriers (which might mean solving an issue completely unrelated to the stream)
- Giving people the opportunity to be involved in the planning stages
- Providing opportunities for the neighbourhood to come together and learn from one another
- Celebrating successes/milestones
- Creating commitments to carry out the work required and following up that commitment

Projects of this scale are complex, but the rewards of positive social engagement and positive environmental change are the key things that make this work so very productive. Enabling a community to recognise the value of its natural resources and how to care for them over time, beyond the projects life, is one of the most positive outcomes from work of this nature.

## **5. ACKNOWLEDGEMENTS**

We would like to acknowledge Auckland Council for initiating this project and supporting us in our delivery of it.

We acknowledge Shannon Brown & Associates for their work in the follow up social research carried out in 2014. Shannon Brown & Associates found this project and residents journeys to be extremely interesting and insightful, working with Shannon Brown & Associates allowed us to understand some of the intricacies that were happening within the community as we began to engage people and get them onboard with the project.

And lastly and big thank you to the local residents for trusting us and allowing us to work with them to assist in the restoration of their local reserves and riparian margins. We hope the work will continue for many years with the newly formed community based restoration group.

## **6. REFERENCES**

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