

**Harrison, Frances (author)**

Ex-Waitakere City Council

Email: [fharrison55@hotmail.com](mailto:fharrison55@hotmail.com)

**Lawton, Maggie (presenter)**

Director, Future by Design

Email: [maggie@braidwood.co.nz](mailto:maggie@braidwood.co.nz)

**Title: Community Advocacy for Sustainable Living**

**Theme: Embedding Sustainability**

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Email: [fharrison55@hotmail.com](mailto:fharrison55@hotmail.com)

**Lawton, Maggie (presenter)**

Director, Future by Design

Email: [maggie@braidwood.co.nz](mailto:maggie@braidwood.co.nz)

## **Title: Community Advocacy for Sustainable Living**

**Theme:** Embedding Sustainability

### **ABSTRACT:**

Waitakere City Council's vision is for residents to actively participate in sustainable living, including water conservation. The council is, through its EcoWater division, encouraging a 25% reduction in mains water demand by 2025.

Innovative social marketing initiatives have been set up to educate, support and motivate residents to modify daily behaviours towards greater sustainability. They have also identified environmental leaders across differing age groups who encourage others in their communities to lead more sustainable lives.

Water Ambassadors Kids Club (WAKC), aimed at children aged 5-15 years, was a blend of online interaction, events, education and publicity components and has been running for the past 18 months. There are currently more than 1300 members including international ones. This environmental programme is warmly supported by members' families and schools and injects elements of fun and personal development into daily life. A group of competent public speakers, some as young as 7 years old, went out into the community to advocate for living sustainably in terms of water.

The Water Ambassadors of NZ (WANZ) was a network of individuals aged from 16 years, community groups, consultants and businesses with an interest in using water more sustainably. It provides access to research papers, opinion pieces, news on new technologies and profiles for members. Predominantly online based, there were plans to develop more opportunities for members to meet and work together directly.

A collaborative approach with Waitakere's largest retirement village (a member of WANZ) has seen dramatic changes there in water-use and waste minimisation. Raintanks for rainharvesting to supply water to 100 flourishing individual gardens have been set up and waste to landfill has been dramatically reduced. The approach has been so successful that Vision Waitakere Gardens won the supreme award at the Auckland Regional Council 2010 Sustainable Environment Awards. Waitakere fostered people taking sustainability advocacy to other people.

### **INTRODUCTION**

Waitakere City Council's water demand management goal of reducing reticulated water consumption 25 % by 2025 is needed in order to defer the construction of a new water supply infrastructure which would be economically and environmentally costly, by 26 years.

Most people drink less than five percent of the drinking water supplied to their homes; the rest is used for non-drinking purposes and then does down the drain.

Reticulated drinking water is a valuable resource. It requires expensive collection, treatment and distribution to get it from its source to each home. Our water supplies currently consist of the Auckland dams and springs plus the Waikato river pipeline. These supplies have a finite capacity and at regular times in the near future growing demand in the region means Auckland will require upgrades and a new water source. Such a source will be extremely costly, around \$300m, and that cost must be borne by consumers and the

environment. Therefore any initiatives that can reduce consumption will defer the need for future capital expenditure and this will benefit consumers financially and environmentally.

## Water Source and Treatment Augmentation Options 2010

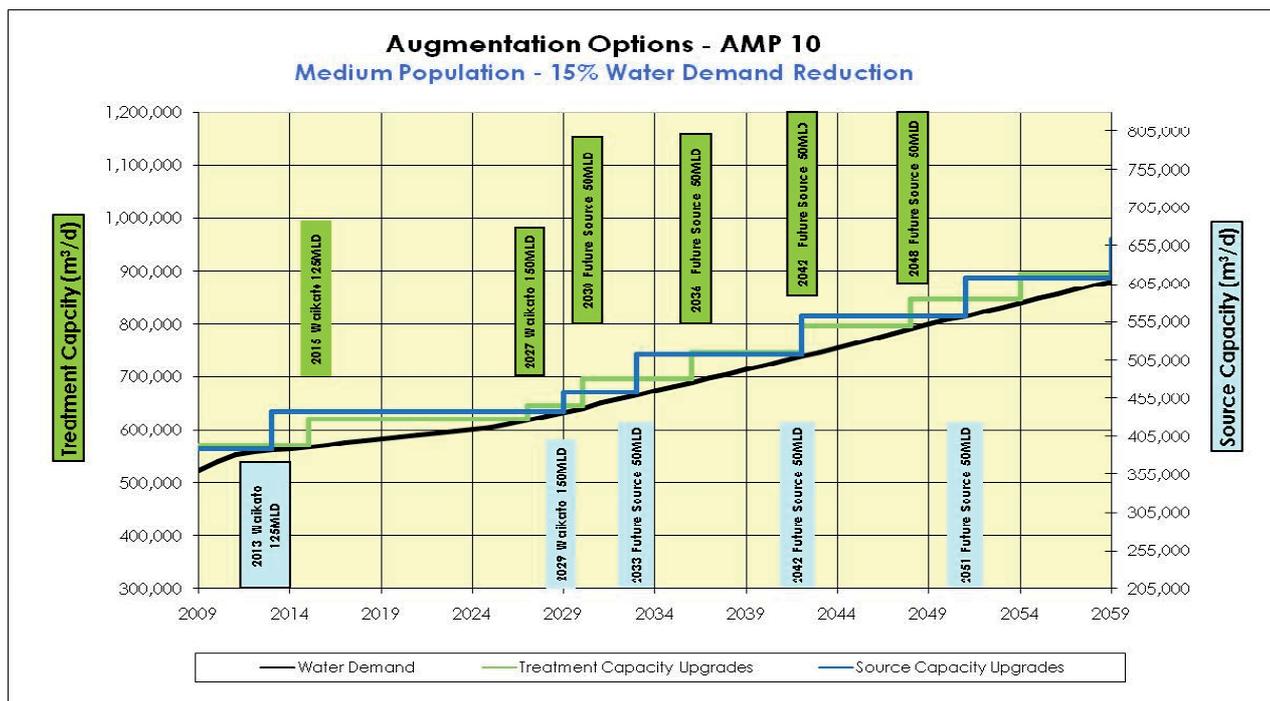


Figure 1: Timeline for additional water supply infrastructure expenditure (Source: WaterCare Services Ltd)

EcoWater considered programmes that had been run by suppliers in Australia. Some were not appropriate because they had a much higher percentage of industrial and horticulture use. Domestic water use accounts for 81% of Waitakere’s water use and is 12% of the total water supplied to the region. Waitakere’s use was already low following campaigns to reduce public waste going back to the ‘big drought’ of 1994/95. The Sydney experience showed that using a range of different options such as raintank rebates, water-efficient devices and public education was required to lower water use.

### Literature Review

Sydney Water is helping its community and businesses use water wisely - saving 24% of Sydney’s water needs by 2015. They have a broad range of programmes and campaigns in place, some of which have been running for several years; outdoor water conservation programmes, raintank rebates, promoting water-efficient household devices, subsidising residential retrofits and using targeted business programmes for manufacturing, hospitality and schools. Key results are detailed in the “Water Conservation & Recycling Implementation Report 2003-2004” (Sydney Water Corporation, 2004).

The City of Melbourne has a target per capita reduction of 40% by 2020, which equates to a 12% reduction in absolute savings. Their strategy, WaterMark: Towards sustainable water management by 2020” (City of Melbourne, 2003) gives an overview of their proposed methodology. Their key strategies are: council leading by example, regulation, education, and monitoring.

The On Tap report (Ministry for the Environment, 2009) looked at water use from the householder’s perspective; attitudes to water, behaviours and barriers and incentives to action on water conservation in New Zealand. Findings echoed what Waitakere City has known for sometime; that New Zealanders regard water as precious yet plentiful and that wasting it is bad but that they have a right to use it as they wish, as often as they want. They do not appreciate the real situation.

New Zealanders do not want to modify their behaviour as that is seen as an intrusion and they have limited

interest in changing anything for environmental reasons. New Zealanders in urban areas (especially Auckland) generally feel that it rains all the time so there are no drinking water supply issues. They do not realise how much water they use or which activities use the most but will pay attention to water-use information and make one-off changes, such as buying a more water-efficient washing machine, than make consistent behavioural change. Saving and frugality is seen as an important principle but not if it interferes with lifestyle.

Project Oracle, TNS Conversa (2008) investigated Water Usage and Conservation across the Auckland Region. It was commissioned by the local network operators who needed to review attitudes to water conservation and usage in order to develop strategies to delay significant future water infrastructure investment.

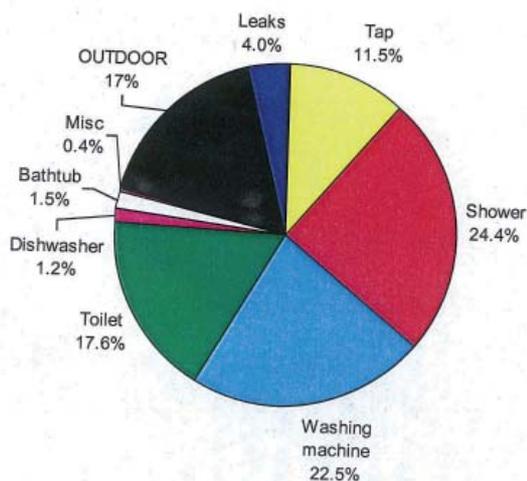


Figure 2: Total end use per household (Source: BRANZ)

It found that the level of awareness in greater Auckland of water conservation as an environmental issue was relatively low and recommended a communications campaign to achieve desired awareness and behavioural change objectives. Any public campaign should focus on raising awareness and the importance of water conservation in terms of future infrastructure decisions. No households viewed water as a scarce resource so campaigns needed to focus on infrastructure rather than availability.

Only nine percent of households saw themselves as high water users, and re-educating households around the real impact of simple water conservation measures, such as turning off a tap while brushing teeth or shaving, was necessary.

Both businesses and households had a part to play in achieving more sustainable practices, particularly in installing more water-efficient technologies as this was viewed as the ‘easy’ option rather than true behavioural change.

The BRANZ Water Use in Auckland Households report (Heinrich. M, 2008) suggested campaigns could focus on washing machine and toilet technologies for indoor use along with promoting more water-efficient irrigation systems for outdoor use.

Awareness and behaviour are a little different in Waitakere. The council and its water supply department EcoWater had been running public awareness campaigns since 1994 to address the information, awareness and action issues for residents. Water use is down ten litres per person per day in Waitakere, despite a growing population. From the research detailed above it was decided to develop a comprehensive and multilayered programme to promote water demand management.

## EMBEDDING SUSTAINABILITY: A HOLISTIC APPROACH

*Waitakere used an integrated campaign approach to drinking water conservation across sub-units of EcoWater (consents, water supply, wastewater, stormwater). This approach was also flexible enough to link into other sustainability initiatives such as promotion of cycleways as transport alternatives, cleaner production and climate change projects.*

### **ThreeWaters Newsletter urban edition**

This publication went out with each water bill on a six-monthly basis. It contained key water-efficiency messages, activities by EcoMatters Environment Trust (a contractor) and projects involving the council and the community. Legal requirements were highlighted and any consumer campaigns to assist residents to make water-efficient buying decisions were announced.

### **Working with EcoMatters Environment Trust**

EcoWater promoted EET's household water audits via its communication activities. EcoMatters distributed any key brochures that the council felt was appropriate.

### **Building Tours**

Water-efficiency messages were easily presented face to face during Waitakere Central building tours. The building provided a rationale and vehicle for water collection, re-use and reduce messages. There were opportunities for the public, including schools, university students and other visiting groups to ask questions and be acquainted with our current demand campaigns. Water infrastructure and conservation seminars were offered as part of the tours.

### **Touch Poll surveys**

These were conducted at EcoDay to keep track of the public interest in water conservation and to see how our efforts at promotion were going. They were valuable in terms of shaping direction of programmes each year. In the 2010 report it was clear that residents wanted water efficiency programmes to continue once Watercare Services took control of water supply and wastewater services.

### **Brochures**

We produced a comprehensive range of brochures specifically promoting water efficiency to reduce demand but also linked in with stormwater and particularly wastewater and showed the linkages between the two as well as the relationship between water and energy. The brochures mostly targeted homeowners and other residents in order to educate/inform/alert them to current issues and solutions.

There is considerable ignorance amongst the populace regarding how they get their water, what happens to it, how much they are actually needing to use and how to cut down on wastage of city supply. They proved valuable at trade shows, community events, clubs, schools and were made available to plumbers where appropriate.

**EcoDay** has been a key event on Waitakere City's calendar for eight years. Residents and visitors to the city look forward to the community and commercial displays, activities and seminars on how to live more sustainably. All key water-efficiency messages were promoted, there were opportunities to hear from the public of any obstacles to their continuing care with water and it has been an effective vehicle for public surveys on message delivery.

Each year EcoWater has had a main display covering the three waters but in 2010 this year part of the display booth was given over to the Water Ambassadors Kids Club where members as young as six years old competently manned their space and delivered messages, interacting with their own community. The children took responsibility for information distribution and delivered seminar presentations on wise water-use; effective ambassadors at a family and community level.

### **Working with plumbers and IQPs**

Anything which affects the city's drinking water supply was treated as a priority. We were therefore active in developing relationships with plumbers, plumbers' merchants and Building Warrant Of Fitness companies (IQPs) in order to achieve greater distribution of our messages, especially backflow prevention for residences and businesses.

Feedback suggests that EcoWater was seen as helpful and consultative to the plumbing industry. In turn the

plumbing industry was willing to support our water-efficiency efforts by distributing printed information and alerting us to opportunities to promote conservation. Feedback also told us that other water suppliers who do not use a consultative and collaborative approach were not appreciated and were often viewed with mistrust.

EcoWater was an exhibitor at a Plumbing Expo in Waitakere. It was the first time we had participated and it gave us an opportunity to answer consent issues as well as promote water-saving messages. Sustainability messages were not promoted in isolation and new alliances were forged.

There was also interest in developing the concept of adult water ambassadors to promote good-news stories, education/awareness and incentives via a website with a specific look.. This approach had been successful with the kids club.

## Promoting water-efficient devices

### **Water bills inserts**

We ran an insert into the water bills providing an overview of options around the home where water-savings could be made by using water-efficient products and services. This showed customers that there are many ways to save on water charges by saving on water use. We also provided themed inserts to promote particular technologies such as water-efficient showerheads, toilets, washing machines, raintanks and solar water heating.

### **Website/Internet**

We created a directory of suppliers of water-efficient products and services as a starting point for residents who were ready to buy more sustainable technologies. We also created a water-conservation character/spokesperson in the shape of a water drop to help avoid preachiness in our messages. Splash had his own webpages explaining his role and was very animated in various poses to lend a sense of movement and fun to the messages. Eventually he became key 'spokesperson' for the Water Ambassadors NZ network and appeared on all promotional materials for schools and consumers. His 'son' Splosh was key spokesperson for the Water Ambassadors Kids Club.

### **Using social media**

The council moved from being a somewhat one-way communicator in terms of water to encouraging two-way communication involving WEB 2 responses and other forms of participation from the public. Messages concerning the three waters (water supply, wastewater and stormwater) were repeated many times via all available channels. Messages were often integrated between the 'waters' especially the connection between water use and wastewater. The council's 'water messenger' Splash was used.



Splash developed his own Facebook page Splash Nz and fan page and regularly commented or advised on Twitter @Splash4Nz. Fans responded by posting photos of the council's demand management activities where they involved a public event, thus virally spreading and reinforcing the messages within the community and beyond. Links were created between the council website and social media channels.

The use of Splash on Twitter also identified other organisations interested in our conservation work. We followed them and they followed us. This gave us greater access to materials we could repackage for our own use. Some of that found its way to our webpages and Facebook., thereby ensuring we always had new information or videos to offer.

### **Displays at customer services**

Rainbarrels as a means of waterwise gardening were promoted at customer services with a typical rainbarrel setup and flowers, supported by our waterwise and rainbarrels brochures. This generated interest and enquiries from staff and visitors alike. Banners and product display continued with solar water heating promotions too.

## Promoting water-wise gardening

**MEGA Mitre 10** store on Lincoln Road entered an informal agreement with the council to profile water-conserving products for outdoor use. A display was set up in the garden centre prior to labour weekend, council staff and a local landscape designer offered free information and brochures to highlight ways to use less drinking water for outdoor tasks, such as using soil conditioner, mulch, worm farms and compost bins, hand-held hoses with attachments, rainbarrels to collect water and planting drought-tolerant plants. Advertisements were placed in local newspapers and flyers distributed at strategic places such as libraries.

**Garden Clubs** heard about our commitment to promote waterwise gardening practices and requested a speaker for garden club meetings. This enabled us to pass on valuable key messages and information on gardening but also to pass on key messages concerning infrastructure and the water ambassador programmes. Question and answer sessions were well supported.

Raintanks for homes have been promoted through consumer promotional campaigns, brochures, community information evenings, such as one held at Swanson in conjunction with Project Twin Stream's Sustainable Swanson and the Eco Design Advisory Service. As a result many residents now understand WHY there is a need for a demand management programme and personally support it.

## Education

Education of adults and children on water demand issues has been a priority and has been implemented by community seminars on rain-harvesting, brochures, consumer campaigns, an online kids club and adult information site as well as incentives and rebates. Water demand management social marketing campaigns educate customers on the amount of drinking water that is "wasted", the benefits of using water wisely, and inform customers of how they can reduce the amount of water they use.

### Testing ideas

We were very fortunate to have access to one of Waitakere's enviroschools, Tirimoana School, as a 'laboratory' for testing messages and various channels. There were four visits to the school to promote demand management.

The first introduced the issues and various ways to conserve water. The second elaborated on this and involved artwork produced to highlight desirable behaviours. The third taught water supply infrastructure and tested proposed educational posters along with the water ambassadors kids club concept. The fourth presented copies of the finished water supply posters to the children which they had had a hand in developing and also reinforced sustainability messages.

The school also sought experiential education via two well-regarded building tours of Waitakere Central's sustainable buildings. This relationship with the school was definitely a win-win for all. EcoWater has also advised Laingholm School on installation of a raintank for supplying toilets and irrigating the playing field. Colleges also made use of building tours and water seminars provided by EcoWater staff.

### Water Education Cluster Group

Demand management achieved a higher profile with this group after EcoWater was included in one of their seminars for teachers. A major bulge in registrations for the Water Ambassadors Kids Club was a result after a presentation on educational resources was made. There was also interest in having EcoWater staff come and teach infrastructure in the classrooms. Requests came from out-of-zone schools too but due to lack of resourcing we were unable to assist. There continues to be a need for this sort of practical assistance in the future.

### Speaking engagements

From time to time, EcoWater was asked to supply presenters for community meetings and to focus on water-related issues. There have been two speaking engagements to two Waitakere-based floral and garden clubs

plus a rain-harvesting information evening in Swanson. These opportunities to deliver messages directly to the public are invaluable. Question and answer sessions are well-supported. Water infrastructure, water efficiency at home and water-wise gardening are always included in the presentations.

## Community advocacy

### **Vision Waitakere Gardens**

EcoWater supplied this large retirement village with a 3000 litre raintank followed, after the success of the first, with a 5000 litre tank. These tanks are used to harvest rainwater from the village roof for use on the extensive fruit, vegetable and flower gardens. The rainwater is also used for the worm farm and hydroponics sections. This rain harvesting means the garden saves 45,000 litres of drinking water per year and thus saves money on the water bills. However, the village's sustainable water practises go further.

Residents are keen distributors of water efficiency messages and actively supported our community information evenings as well as running tours of their gardening complex.

A number of residents are actively seeking opportunities to share sustainability messages with visiting groups from the wider community.

From time to time they conduct tours of their extensive gardens and demonstrate how to use water wisely in the hydroponics and propagation sections, the worm farm and flower beds and vegetable plots. It's an opportunity for members to demonstrate community leadership, share their passion for gardening and pass on information to school children and other members of the public on how they too can be live more sustainably. Waitakere Gardens residents are true sustainability ambassadors and this year received the top award for Sustainable Living from the Auckland Regional Council.

### **Community Gardens**

Non-potable water supply is usually a key consideration for residents establishing community gardens. A 10,000 litre tank was installed on reserve land in Epping Road, Henderson after residents requested assistance in implementing their ideas for sustainable gardening. The council donated this tank and its installation and one of the adjoining homes supplies the water from its roof to the tank. This is an example of real community and council teamwork.

### **Water Ambassadors Kids Club**

In March 2009 the council launched the Water Ambassadors Kids Club. This was an online based programme which targeted five to fifteen olds who are interested in caring for their water source and happy to share this information with their families and friends.

The website at [www.waterambassadors.co.nz](http://www.waterambassadors.co.nz) provided learning resources including links to other water demand and environmental websites for children. It also encouraged them to post stories and pictures concerning their efforts to minimise wastage of drinking water around their homes. Each child who registered received a membership kit containing fun and instruction activities, such as measuring water use around the home, games and puzzles as well as informative collectables. In this way, sustainable use of water became a topic around the entire family, parents learnt alongside their children.

Web-hosting feedback indicated that the site had a conversion rate of 34% visitors to registered members, which is double the usual response rate. At the end of September 2010 there were more than 1370 members including some international ones.

The kids club was not designed to be limited to online activities. Instead we wanted our members to become true ambassadors, taking the messages out of the home and into the community. A team of public speakers formed, ranging in age from seven to ten years. They wrote their own speeches to deliver at public events, school assemblies and via YouTube videos. One member was so active he received a certificate of appreciation from the city in recognition of his sustainability advocacy.

## **Water Ambassadors NZ**

This online network was created as a vehicle for all adults interested in promoting sustainable use of water to share ideas, technologies and research. Members contributed opinion pieces and information on new technologies. How-to videos were hosted on the site as well as free downloadable resources, links to key research papers and latest water industry news.

Members had access to promotional materials to promote water-wise practices and key trade events. Secondary school children and university students also used the site as a resource. Membership included students, suppliers and manufacturers, local government groups, community groups, sustainability consultants. Members were also invited to take part in the council's Retrofit Your Home programme to assist homeowners to have healthier and more efficient homes in the areas of water and energy.

The good news is that recently, Waitakere residents have started using their precious drinking water more wisely and a reduction in use has occurred. In 2007 each person used 167 litres per day and that is now down to 157 litres, a drop of 10 litres per person per day. Thousands of members of the community have identified themselves as keen to know more and display leadership in advocacy for sustainable practices with drinking water.

## **CONCLUSION**

Embedding sustainability principles into the Waitakere community has taken sixteen years, consistency of messages and flexibility of implementation. It has involved residents of all ages, businesses, industry specialists, schools and families. The council has used every communication channel at its disposal and created innovative new ways to engage with residents. Above all it has required genuine teamwork with all parties involved- one vision but many ways to reach the goal but it is succeeding in moving towards the city's demand management goal.

Our residents now understand what they can do for themselves to live more sustainably and the increased sense of community spirit that springs from working together to achieve this goal is a reward, along with the results of decreased water demand, and the associated benefits of decreased wastewater volume, cleaner streams and reduced wastage. Even though the council, as catalyst, exists no longer, the eco city was proud to lead and now sustainability advocacy is truly in the hands of its communities.

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