

## H2OK – Making a Difference?

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### *Abstract*

*H2OK Keeping our Waterways Healthy is the largest behaviour change project attempted in the ACT and region about stormwater. It is jointly funded by the ACT and Australian governments and is the community engagement component of the ACT Healthy Waterways program, which also includes construction of stormwater infrastructure and improving our knowledge of stormwater treatment processes. ACT Healthy Waterways aims to help improve the quality of water entering ACT and region lakes and waterways and flowing downstream to the Murrumbidgee River. It operates across jurisdictions in the Upper Murrumbidgee catchment auspiced by the ACT and Region Catchment Management Coordination Group.*

*A survey of households in the area was conducted in 2015 by the University of Canberra around water quality and recreational use of our waterways (Shirmer and Mylek 2016). This survey generated 4700 responses, from which it was evident that the lakes and waterways were being used for many different things like boating, fishing, birdwatching, picnicking, cycling and walking.*

*It also indicated a significant lack of stormwater literacy. While people enjoyed using waterways they did not associate stormwater drains and what goes down them with the quality of their waterways. From this information it was decided that the target audiences for the H2OK pilot program would be urban residents, rural residential dwellers and the building, construction and maintenance industries. The project also took advice from successful stormwater education programs around the world.*

*The main elements of the pilot are a region wide seasonal multimedia campaign; demonstration sites; community art; event engagements; training and workshops and ambassadors, all delivered under the banner of H2OK Keeping our Waterways Healthy - supported by striking collateral with strong messaging.*

*H2OK has the ambitious aim of raising awareness and understanding of stormwater, where it goes, what pollutes it and how everyone can play a part in keeping our stormwater clean by encouraging an adoption of positive behaviours about catchment protection. Building regional partnerships between governments and with community and industry is a key success factor for the project.*

*Drain art developed by students and local artists as well as drain stencils have been installed in high foot traffic areas across the region. These direct visual reminders of the connection to waterways have been successful in engaging the general public. Demonstration sites on rural and urban residences properties, at building sites and in community gardens are providing real examples for others to follow and learn from. Seasonal media campaigns provide a focus on topical issues like autumn leaf fall or summer storms. Community engagement events like the Canberra Multicultural Festival or agricultural shows provide an opportunity to engage with a wide audience. School and community group activities also provide an avenue for getting the message out. Collateral such as posters, magnets, fact sheets, temporary tattoos and stickers support these engagements.*

*The question is are we really making a difference? It remains to be seen. We have a large target audience (500,000 people). Our project only runs for three years until June 2019. We are at the halfway mark. We have thought a lot about evaluation. We are confident that our program is raising awareness of what stormwater is, where it goes and what pollutes it. The question is to what extent and how effective were the key communication messages in driving behavioural change? What reach has our program had to our target audiences and will the water quality in our waterways be improved? These are the questions we are now working on.*

## 1. INTRODUCTION

The ACT Healthy Waterways Project is a joint initiative of the Australian and ACT governments to protect and improve long-term water quality in the ACT and further downstream in the Murrumbidgee River system.

Part of the Murray-Darling Basin Plan and with a budget of over \$90 million, the project will reduce the level of nutrients, sediment and pollutants entering our lakes and waterways.

It involves the construction of a range of infrastructure - ponds, wetlands, rain gardens and swales as well as creek restoration and channel reconnection - designed to 'turn off' or reduce the amount of nutrients, sediment and pollutants entering our waterways. The focus is on improving water quality higher up in the catchment where rainwater becomes stormwater.

19 infrastructure projects are being planned (with subject to change as a result of more investigation during the design phase) and constructed as well as 2 research projects conducted across 6 priority catchments.

A carefully balanced combination of factors was considered when selecting the projects, underpinned by thorough scientific research and consultation with technical experts, government and the broader community. The factors considered included:

- the predicted water quality outcomes each option would generate
- the cost of building and maintaining infrastructure over its lifetime
- potential environmental impacts and site-specific practical constraints
- broader economic costs and benefits, social values and community preferences
- A region-wide survey into people's views on our waterways showed how important our streams, rivers and lakes were to the community and environment.

Over 4500 people participated in the ACT and Region Social Expectations of Waterways survey, undertaken by the University of Canberra on behalf of the ACT Government as part of the ACT Healthy Waterways Project.

The findings showed how important clean waterways was to individuals, communities and the region for agriculture, health, sport, recreation and wellbeing. In particular waterways were important to residents for recreation—be it in, on or around lakes, wetlands and rivers.

The survey also found strong support for a range of actions to improve water quality including constructing wetlands, improving stormwater drains, planting more vegetation along waterways and increasing the number of hard waste, paint and oil depots so people don't dump these pollutants down the drain.

From this the H2OK – Keeping our waterways healthy pilot was born.

### 1.1. H2OK – Keeping our waterways healthy

The planning for the *H2OK Keeping our Waterways Healthy – Community Education and Behaviour Change Program* pilot commenced in July 2016, and was officially launched in February 2017 and will conclude on 30 June 2019.

The pilot program aims to reduce pollutants in lakes and waterways by engaging with the community and building a culture of improved practices for residents and businesses. It operates across the Upper Murrumbidgee River catchment from the headwaters of the Murrumbidgee River in Kozsciusko National Park to the Burrinjuck Dam, including all of the ACT as well as parts of the Yass Valley, Queanbeyan Palerang and Snowy Monaro local government areas. This makes the program the largest, most comprehensive program targeting stormwater and water quality education and behaviour change ever attempted in the region.

The H2OK Keeping our Waterways Healthy slogan 'Only Rain Down the Stormwater Drain' and design motif were developed by design firm Cre8ive and provide a durable, flexible and adaptable resource for conveying the program's key messages to a variety of target audiences across a variety of media.



Figure1. Strong messaging of “Only Rain Down the Stormwater Drain”

Key elements of the program include:

- a **comprehensive seasonal advertising campaign**, using print, radio, online and social media
- **artwork on drain infrastructure** using local artists, schools and community groups as well as informative stencils on drains
- an **education road show** at local and regional events, schools and communities;
- a **demonstration sites grants program** to encourage best practice stormwater management on rural and residential blocks. Grant recipients will be required to open up their blocks, similar to open gardens, to show others what can be done at home to help improve water quality
- **industry training** to ensure high standards of practice like erosion and sediment control
- **local stormwater ambassadors** who can spread the word and build catchment literacy.

## 1.2. Comprehensive Seasonal Media Campaign

Quarterly media campaigns have been developed to help reinforce the program's key messages and hone in on targeted messages relevant to the four seasons.

Campaign activities for the seasonal campaigns included:

- Local and regional print advertisements
- Radio advertising and interviews (including Culturally and Linguistically Diverse audiences)
- Digital advertising (HerCanberra and the RiotAct)
- Search Engine Optimisation and Google Text Ads
- Social media advertising
- Whole of government message
- Email to stakeholders
- Bus shelter and bus wraps

- ACT Government channels such as the Our Canberra newsletter and whole of government messages

Other communication material rolled out in the launch phase, has continued to be used throughout the program, including a flyer (top 10 tips), drain art (asphalt stickers) and road stencilling. Promotion material created for use at community events included stickers, magnets, tattoos, banners, core flute signs and posters.

The key messages we have been promoting to residents are;

- Don't be a tosser; always put litter in the bin
- Take your rubbish with you if no bin is available
- Keep a bag in the car to collect rubbish
- Put your cigarette butt in a butt bin, or ordinary litter bin when extinguished
- Keep a container in the car to collect cigarette butts.
- Pick up the litter of others, and ask others to pick up their litter.
- Avoid using excessive fertilisers and pesticides on your garden
- Pick up after your pet
- Dispose of paints and chemicals at recycling centres (not down the drain)
- Butt out responsibly; put cigarette butts in the bin
- Wash your car on a grassy area (to avoid run-off) or at a commercial car wash
- Cover your load on the way to waste and recycling centres
- Secure your bin on collection night.
- Remember, only rain down the stormwater drain.

### 1.3. DrainART and Drain Stenciling

The program ran a schools drain art project where students were invited to respond to the issues about protecting our waterways and stormwater management by creating art works that were then transferred to adhesive decals and installed in high foot traffic areas of Canberra's main town centres as well as in Queanbeyan, Yass and Cooma.

We have partnered with the surrounding libraries where entries will be placed on display for the public as a travelling exhibition. This exhibition will include last year's 15 winners as well as this year's entrants.

This round of DrainART also allowed students to take a more creative format and submit their entries in a number of different formats. Students could choose to submit their entry as drawings, digital images, photographs or videos. From these entries, winners will be chosen and will be used to promote the program.

Students are asked to choose a category into which they would like to submit their entry.

The 3 categories are:

1. **Organics and Soils** – Leaves, soil, dog faeces if washed into our waterways contain or carry with them nutrients that damage our waterways. We need to stop erosion and compost, mulch or properly dispose of organic waste.
2. **Litter** – Cans, bottles, plastic bags and cigarette butts, as well as many other things, are illegally disposed of on our streets and in our parks and end up in waterways. They effect fish and other water life and clog our waterways. Most litter can be recycled, containers returned for a deposit (in the ACT) or disposed of properly.
3. **Detergents and Cleaning Products** – Soapy water enters our waterways when cars are cleaned on roads or driveways or when cleaning waster is poured down our drains. Cleaning cars should be done where there is no danger of run off to drains or cars taken to a commercial car wash. Cleaning waste should be disposed of correctly at a sullage point or toilet so the waste can be treated as sewage.

This program has been complemented by work done by two commissioned artists, which was also installed in a similar way. 'Only Rain Down the Stormwater Drain' stencils as well as catchment specific messages are being stencilled on drain sump covers in high foot traffic areas across the region, focussing on shopping centres and pedestrian crossings.

All shopping centres in the region will be stencilled in this way by the program team, who also use the opportunity to engage with local shopkeepers and patrons about the program and its key messages. Over 600 stencils have been installed so far with 1,000 being the target. The 'Only Rain Down the Stormwater Drain' message on the pavement is becoming well known across the region.



Figure 2. Drain Stencilling around the region

#### 1.4. Educational road show

Schools and community groups, including Scout groups, are being visited across the region and engaged through curriculum relevant activities, in both theory and practice.

We have run "the story of a river" with students and Scout groups with a strong reference to the area that they live in, Indigenous aspects and helping them understand their place in catchment.

Groups have also helped with stencilling and litter picking as part of their engagement. We have had a lot of interest, particularly from our NSW regional councils to engage further with more activities for their students.

We have also attended community events in the region with collateral, activities for children and fact sheets to speak to the public about what they can do at home to help improve the water quality in their lakes and ponds. This has allowed us to chat to people that are in our targeted audience but are not necessarily being reached by radio or advertising.



**Figure 3. A scout group from the region participating in “A story of a River” activity**

### **1.5. Demonstration Site Grants**

Demonstration sites grants were competitively offered to urban owners (up to \$3,000) and rural residential owners (up to >\$7,500) to install stormwater sensitive improvements on their properties. A condition of funding was that their properties be available for public inspection on at least two occasions. Demonstrations included rain gardens, downpipe disconnections, swales, pervious paving, composting, rainwater tanks, wicking bed gardens, infiltration systems as well as fencing, erosion control and riparian zones rehabilitation for rural residential owners.

All successful funding recipients employed a combination of techniques and had 12 months to do the work. We brought together the demonstrators for a show and tell session which was followed by two open days with a bus tour, which were fully subscribed. Approximately 200 people visit the demonstrations and engaged with at least 1 site with some residents attending all 8 sites that have been shown so far.

We are currently organising the next tours to showcase the rest of the 7 properties. Interest has been extremely positive and 80% of attendees that returned the evaluation form indicated that they would likely do something positive to help manage stormwater at their property/house as a result of their participation on the tour.

To showcase different techniques to the public we have also partnered with community gardens in Yass, Comma and Googong as well as the Canberra Environment Centre to engage the community to demonstrate accessible stormwater management techniques. This has included installing raingardens and irrigation systems.

We have also partnered with the building industry to develop demonstration projects, which involved establishing sites in both the ACT (Denman Prospect) and Queanbeyan (Googong Township) that demonstrate best practice in erosion and sediment control on sites where there is significant reliance on voluntary compliance with regulatory requirements. The demonstrations use local builders who are advocating for improved standards of practice. They spoke about their experience in a video for use in the industry as part of formal training and site orientations. This collaboration is the first of its kind in the region and has fostered a strong ongoing partnership between industry, catchment managers and environmental regulators in addressing a significant contributor to local waterway pollution. It has also overcome challenges of working across jurisdictional boundaries and different regulatory environments.

## 1.6. Industry Training

As part of the program we have focused training on sediment and erosion control for building and construction.

We are working with local builders and the Master Builders Association of the ACT (MBA) as well as Denman Prospect (Capital Estate Developments) and Googong Township to produce a 2 minute training video that will be used by the MBA as part of their induction tool to ensure that their builders understand the importance of not just erecting sediment and erosion controls but the maintenance aspect of the controls. This includes showing the do's and don'ts in the industry and how different methods can be effective depending on your block and situations.

## 1.7. Stormwater Ambassadors

To support seasonal media campaigns, school and group visits and community engagements, the program has produced a series of videos using local champions. These videos have proved popular and reinforce the key messages of the program which is supported by other collateral like flyers, information sheets, fridge magnets, stickers, temporary tattoos, posters, billboards, bus side and bus shelter advertising.



*Foggy mornings on Lake Burley Griffin are a photographer's dream but Canberra's Kayak cameraman is not just taking photos.*

**Figure 4. Kayak Cameraman, Paul Jurak, H2OK Ambassador**

## 2. BEHAVIOURAL CHANGE – CAN IT BE DONE?

The design for the pilot program is based on the principles of community based social marketing (McKenzie-Mohr and Smith 1999), where the program components were designed to raise awareness, to increase understanding and then to promote adoption of new behaviours, whilst addressing barriers to change.

The roll-out of the program has been measured, piloting components before moving to broader scale implementation and the messages have been made simple and straightforward to get the most cut-through.

The project took 6 months to plan involving a collaborative working group who defined the target behaviours, identified barriers to adoption and the benefits that would result from the changed behaviour.

So the real question is – has the pilot been an effective campaign at raising awareness and in turn increase behavioural change from the community to help improve water quality in the Upper Murrumbidgee Catchment?

## 2.1. Evidence

This is a 3 year pilot program and we are approximately half way through – so it is very early in the engagement process to have definitive data that there has been behaviour change and that this is reflected in more favourable water quality results in our waterways.

The choice of target audiences and the key messages for the program were informed by a region-wide survey and research study about the way our waterways are understood, valued and used. This survey and study, conducted by the University of Canberra, provided substantive data supporting assumptions that the majority of the residents of the catchment had little or no appreciation of the nature of the catchment or its waterways. A more targeted survey will be repeated in the coming months to evaluate whether or not the key messages have been received and to what extent have informed residents to change their behavior.

What we do believe is that with a relatively modest budget we have been able to raise the level of awareness of stormwater and the factors that impact on its water quality. This is evidenced by anecdotal feedback about seeing our message on drain stencils, seeing our social media posts and in the strong interest in demonstration sites.

Demonstration sites have provided opportunities for other to commit to action and to speed diffusion of the key messages. The demonstrations purposively chose low-tech accessible approaches that could be adopted by a wide range of people. The project was incentivised by the use of targeted small grants delivered as a pilot program. The ACT and Region Catchment Management Coordination Group has given further funding beyond 2019 in-principle support after seeing the encouraging results of this program, paving the way for on-going and broader scale implementation.

Seasonal Media campaigns have proved effective with elements such as promoting events, such as the Demonstration Site Tours.

We have the ability to monitor our H2OK website activity and have statistics suggesting that the website has been viewed 17,719 with our most popular pages about the demonstration sites at around 4,500 views.

## 2.2. Conclusions

This is the first ever pilot of a stormwater behavioural change program in this region and only officially launched in February last year. The program has strong messaging and adaptable collateral design. The collateral itself has powerful visual messaging as well as catchy slogan

H2OK has reasonably limited resources for the scale of the project but we are spreading our message as widely as possible and drawing on champions to assist such as NSW councils, ambassadors and messaging.

We have had a positive uptake from the community.

For the future we are looking to continue the program on an ongoing basis. The investment in the program design and collateral realistically has a 10 year life span, with some refreshing every few years. Our early impression from the pilot are that social media, demonstrations, drain stencilling and DrainART are the best channels for spreading key messages.

Continuing regional co-investment in the region will be critical to ongoing implementation of the program. We are optimistic that the growing strength of regional governance in catchment management will provide an appropriate foundation on which to continue beyond June 2019.

### 3. ACKNOWLEDGMENTS

The project is being conducted in close collaboration with a range of government, community and business organisations, including:

Queanbeyan Palerang Regional Council  
Snowy Monaro Regional Council  
Yass Valley Council  
South East Local Land Services  
National Capital Authority  
Icon Water  
Upper Murrumbidgee Waterwatch  
ACT Transport Canberra and City Services Directorate  
ACT Chief Minister, Treasury and Economic Development Directorate  
ACT Education Directorate  
Upper Murrumbidgee Catchment Network  
Open Gardens Canberra  
Master Builders Association of the ACT  
Capital Estate Developments

The project has a working group involving the majority of the stakeholders listed above that promoted collaboration in the project across the region.

This project has been jointly funded by the Commonwealth Government of Australia and the ACT Government under the Murray Darling Basin Agreement.

### 4. REFERENCES

Mackenzie-Mohr, D. Smith, W. (1999), *Fostering Sustainable Behaviour – An introduction to Community-Based Social Marketing*, New Society Publishers, Gabriola Island B.C., Canada

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