



RiverWise

BENNETT SPRINGS PROGRAM

A river-focused behaviour change pilot project





Background



- Evaluation of the SCCP by Doug McKenzie-Mohr in June 2005 identified a need to do more barrier / benefit research of the community.
- Previous surveys conducted by the Trust provided some useful information, but surveys were descriptive, therefore little information on barriers / benefits to specific activities.



Why Bennett Springs?



- Bennett Springs identified as a significant source of nitrogen and phosphorus input to Bennett Brook.
- A gardening survey found that Bennett Springs residents fertilised garden beds 4.9 times/yr and lawns 2.9 times/yr.
- The development began in 1999 and is now almost complete (8000 m² shopping complex and several surrounding schools).
- No interest in attending *Great Gardens* workshops



Formative research

- Commenced in November 2011 with two workshops
- Held two Focus Groups in early 2012
- Strong push back on reducing lawn areas because it was perceived as:
 - adding value to the home, and
 - fitting in with the neighbourhood.



- We have found that the Bennett Springs Community:
 - is concerned about the health of the river system
 - knows that Bennett Brook flows into the Swan River
 - is keen to maintain attractive gardens
 - wants more information and practical help to reduce river pollution



Program objectives



- Engage and educate the targeted communities
- Reduce the amount of nutrients (N and P) entering the drains, water columns and rivers
- Identify messages and delivery mechanisms that affect positive behavioural change and lead to reduced nutrients entering our waterways
- Engage and educate all 1600 households, businesses and schools in Bennett Springs, and
- Personally engage 600 households with publicly listed telephone numbers



Program delivery



Phase 1 & 2 (autumn 2013)

- Introductory letter sent to all households in mid-March
- 100 households were surveyed only and acted as the control group
- 146 (150 target) households received a free 45-min Garden Visit by a trained professional
- Fertiliser and garden 'product swap'

Phase 3 & 4 (spring 2013)

- Letter sent to households in August
- 51 households were surveyed only and acted as the control group
- 75 households (same HHs, after survey) received a follow-up 45-min Garden Visit by a trained professional
- Fertiliser and garden 'product swap' (if required)
- RiverWise kerb marker installed





Evaluation



- Using a Before / After / Control / Intervention (BACI) approach
- Evaluation measures to include survey measures of knowledge, attitude, intention, behaviour and process measures (e.g. uptake of services)
- Analysis based on pre and post measures for same panel of households – removes variability in fertiliser use that exists between households



Results



- Fertiliser products (whole range inc. manures) applied per household, per annum in pre-program period was consistent with previous studies:
 - Application rates in Bennett Springs = 52kg p.a.
 - DoW survey 45kg p.a.
- 6-months after RiverWise service:
 - Participants reported using 8.8kg (15%) LESS fertiliser
 - Non-participants reported using 17.3kg (42%) MORE fertiliser
 - Small scale of program + potential for extreme events mean estimated effect is 15-44% reduction in fertiliser use by participants
- Overall reduction in fertiliser applications that could potentially be achieved by a large-scale rollout of program is between:
 - 11% area wide reduction (where door knocking is deployed to achieve 25% participation rates and higher results estimate is achieved), or
 - 2% area wide reduction (where telephone is the only method of contact deployed and lower results estimate is achieved)



Positive outcomes



- 85% of participants rated the RiverWise services as effective
- 71% of participants spoke with friends, family or neighbours about the program
- 79% increase in understanding of Fertilise Wise / RiverWise gardening
- 21% increase in appropriate frequency of lawn fertiliser applications (e.g. once or twice a year)
- 16% households adopted regular use of soil wetters
- 27% adopted the use of slow release fertiliser products
- 10% stopped using large quantities (i.e. trailer loads) of manures
- 80% of participants showed interest in attending a local gardening workshop
~ translating into interest from between 10-20% of the whole community.



Conclusions



- Personalised coaching approach deployed through RWBS is effective in achieving behaviour change to reduce garden nutrient inputs
- This diversity of response suggests narrow or prescriptive approaches, such as media campaigns or social marketing targeting a small set of behaviours will be much less effective in achieving a lower nutrient outcome
 - Switching fertiliser type, reducing frequency of application, reducing amount per application, improving soil, applying soil wetter and changing planting types
- Using a survey to create engagement is an effective approach when an issue is neither a priority nor well understood by households

Conclusions (cont)

- Deployment of 'Product Swaps' was a powerful illustration of the difference between RiverWise and fast release garden products
- Kerb markers help strengthen commitment and compliance to alternative behaviours and start to normalise the RiverWise approach
- Pilot project cost approx \$475/household – larger scale projects, more targeted use of products / visits could reduce cost to ~\$200/household



Great Garden

urea
urea 10kg
LIME SULFUR
Disease Destroyer
Baitas
ALL PURPOSE
THRE