

Integrated Campaign to Encourage Rural Behaviour Change

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Presentation Layout

- **Description of the policy issue**
- **The effects of the issue necessitating an intervention**
- **Issue owner and social marketing agents**
- **Policy design**
 - ❖ **Strategic design and results**
 - ❖ **Tactical design and results**
- **Evaluation**
- **Next steps**
- **Conclusions**

Policy Issue

On-farm treatment of farm dairy effluent



From this ...

To this ...

Description of the Issue

- **The State of Victoria**
 - ❖ **1.5 mill cows**
 - ❖ **Producing over 11,000 tonnes manure daily – most on paddock**
 - ❖ **Farm dairies create about 75 mill litres of effluent**
 - ❖ **6000 farm dairies**
 - ❖ **10% had no treatment scheme and up to 50% had schemes at risk of not complying with State legislation (2000 estimate)**



Effect of the Issue

- **For public (waterways effects)**
 - ❖ **Increased sediment and smell in streams**
 - ❖ **Increased contact with human pathogens**
 - ❖ **Increased scums and reduced fish-life**
- **For farmers (decision makers)**
 - ❖ **Manure is potential milk contaminant**
 - ❖ **Milk quality requires daily dairy wash-down**
 - ❖ **Manure contains human and animal pathogens**
 - ❖ **Effluent disposal has large indirect capital and management costs**



Issue Owner

- **Department of Primary Industries – Victoria**
- **Promote the economic and sustainable development of primary industries, for the benefit of all Victoria**
 - ❖ **Researching policy and industry issues**
 - ❖ **Enhancing industry supply-chain opportunities**
 - ❖ **Providing information and decision making support**
- **Have 40 dairy extension staff encouraging behavioural change and learning**

Social Marketing Research Consultants

- **Researchers from AgResearch Social Research Unit**
- **AgResearch is a science company, developing technologies and management practices for farming, food and human health**
- **Integrated System Section includes a social research unit (12 staff) studying adult learning, decision making, and human behaviour change**



Policy Design Approach

- **Strategic design for a comprehensive programme of policy interventions, i.e. to account for: possibly multiple types of interventions, changes in environmental conditions, and development in the issue over time**
- **Tactical design for the delivery of a social marketing campaign to achieve behavioural change**



Strategic Design

- Describe the range of existing management systems, decision makers' awareness of the issue, identify 'critical behaviours' relating to the issue and the likely consequences for decision makers of the critical behaviours and the motivating forces influencing their behaviour >intervention type (voluntary-economic-regulatory), scale (abstract principle-practical application), and immediacy (general-personal)
 - ❖ *Interviews, focus groups and systems analyses linking decision making steps and system performance*
- Describe the social networks of decision makers related to their management systems and the 'alignment' of stakeholders > identify potential collaborators and competitors
 - ❖ *Workshops and causal diagramming*
- Describe the likely effects of social marketing and 'key messages' upon decision maker behaviour >evaluate the expected return on investment
 - ❖ *Quantitative survey measuring likely attitude change using multidimensional scaling*

Strategic Results

- **Farmers viewed their effluent management as storage and disposal rather than treatment and assimilation**
- **Therefore their management addressed engineering rather than environmental specifications**
- **Needed persuasive communication, with positive incentives, linked to achieving minimum environmental standards**
- **Decision making influenced and shared with family, contractors, peers, consultants, and processors**
- **Information about the importance of “utilising nutrients” and linking it to “objectively testing”, and “nutrient planning” was measurably the most influential message**
- **Programme goal: from 2000 to 2007 to have over 90% of farmers complying with good practice**

Tactical Design

- **Select a community of focus (target segment)**
- **Describe the preferred behaviour**
- **Identify the motivation for behavioural change**
- **Identify the key message/s**
- **Match to available resources**
- **Select communication channels**
- **Develop general technical information**
- **Design evaluation – formative and summative**
- **Establish industry alignment and promotion**

Tactical Design Results (1)

Proportion of Farmers in Different Segments based upon their Farming Goals and Effluent Management Decision Making Objectives

		Goals			
Decision Making Objectives		Business		Nature	
		Milk Harvesting	quality focussed	40%	environmental pragmatists
Environment and Health		socially responsible	20%	environmental idealists	5%
* Nutrient/ Water Recycling		production focussed	20%	ecosystem dominant	1%

- The selected priority segment was the Recyclers*
- The behaviour was combining land application of effluent with nutrient budgeting and fertiliser rates
- Motivation was achieving greater productivity and reduced costs
- The message was about turning effluent nutrients into a profitable resource

Tactical Design Results (2)

- **Staff resources were 5 Environmental Protection Agency (EPA) and 2 DPI FTEs**
- **Used a combination of mass communication through technical articles and pamphlets, personal communication through training packages, and peer support through group events**
- **Evaluation through recording attendance at events and follow-up surveys**
- **Industry alignment through personal visits and support services training**

Evaluation¹

1. Formative Evaluation - quantitative

Marketing and Extension Events 2001-2003			
Activities		Number	Participation
General	Pamphlets	10,000	5,000
	Advertising	As required for each event	
	Advertorial	20	80%+
Personal	Individual farm visits	320	320
	Learning groups	20	160
	Demonstration sites	5	651
	Discussion groups	11	123
	Specialist soil and fertiliser courses	12	156
	Field days	11	660

Evaluation²

1. Formative Evaluation continued

- 1900 farmer participants in the personal events
 - ❖ 86% - increased confidence in decision making
 - ❖ 40% - intended to make changes
 - ❖ 31% - had made changes to their management
 - ❖ 14% - felt reassured that they were doing “best practice”

“Rather than effluent being a problem to be dealt with reluctantly, it is an asset that contributes many thousands of dollars in value to the operation of this farm”

2. Summative Evaluation from farm inspections

Next Steps

Principles

- **Expect persuasion and encouragement to influence > 80%**
- **Rest need constraints on actual behaviour**

Tactics

- **Increase individual awareness of how environmental standards apply to them and the consequences of poor performance – by individual advisory visits**
- **Inform farmers of the social, legal and financial consequences of non-performance and provide options for avoiding these consequences to encourage self-determination**
- **Follow-up regulation compliance visits**

Conclusions

- For complex issues behaviour is not usually related to demographic measures, but rather experience, context, and decision making systems
- Segmentation should be based upon the point of greatest leverage* in the behavioural change process
- Efficiency of achieving intervention results will be proportional to the degree of behavioural specificity focussed upon
- Rural people are very influenced by the availability of geoclimatic resources and their farming system



*E.g. Transtheoretical model, Prochaska and Prochaska 1999; Precaution Adoption Process Model, Weintein Rothman & Sutton 1998