

Transition of public extension to the private sector: a case study

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Introduction

Dairy farms are an integral part of the Victorian social, economic and environmental landscape. The Victorian dairy sector has around 5,200 dairy farms operating in three regions: Gippsland, Western Victoria and Northern Victoria, including the Riverina district in southern New South Wales. In 2008/09 it is anticipated these three dairy areas will produce a combined total of 6.1 billion litres of milk (Dairy Australia, 2009). Associated with this level of production, in an industry intensifying its operations to counteract a range of industry and climatic pressures. In particular, dairy shed effluent has been the focus of ongoing management efforts. Effluent from dairy sheds has been identified by catchment management authorities as major contributor to poor water quality in dairy regions (e.g. Glenelg Hopkins Catchment Management Authority, 2002). Furthermore, dairy farmers have a statutory obligation to contain effluent under legislation administered and enforced by the Victorian Environment Protection Authority (hereafter referred to as the EPA). Nevertheless, dairy shed effluent has enormous reuse potential when utilised effectively. When collected it can be used to irrigate pasture and summer crops. However, the design of effluent systems is a technically involved process that needs to account for herd size, water use, dairy type, farm characteristics, farmer needs and budget, among a host of other factors.

Successful management of dairy shed effluent presents a scenario with potential for multiple outcomes. Better management of dairy effluent can result in improved stream health as a result of reduced nutrient loads entering a catchment. In addition, a system that effectively captures and stores dairy effluent can contribute to primary producer's profit margins by optimising fertiliser inputs and minimising the need for purchased feed as water from the effluent ponds is used for irrigation.

To address the issue of effluent system design, the past 12 years has seen extension services in effluent system design provided to the Victorian dairy industry by the Department of Primary Industries Victoria (hereafter referred to as the DPI). However, changing industry needs and priorities, reduced regional funding and a review of the public versus private sector role led to the planned exit of DPI from this specialised area. Developing a transition strategy that included a communication plan and the development of an effluent system design learning package suitable for adoption at a national level were vital components to ensure a successful transition.

The purpose of this paper is to detail the strategy the DPI has put into place to transfer the effluent system design service to the private sector and highlight the key elements central to this transition. To do this, a background to the potential impacts of unmanaged effluent is provided, followed by a history of effluent extension activities and collaboration with the EPA. The paper concludes with a discussion of the challenges faced and observations made during the implementation of the transition. This discussion will influence and have relevance to future transitions from government extension to the private sector.

Dairy effluent background

Dairy effluent is produced from on-farm wash down of milking sheds, yards, feedlot facilities and feed pad alleyways. Typically the dairy shed represents 10 to 15 per cent of total farm effluent, but is a visible and concentrated source with the potential to create large and immediate impacts on surrounding ecosystems and can be associated with significant downstream effects. The more intensive facilities such as feed pads and free stall barns have the potential to collect up to 100 per cent of the herd's daily manure loading, depending on the fundamental purposes of the facilities and management approach. A combination of economic and environmental drivers to remain competitive has pushed farmers to intensify their operations. This has resulted in an increased effluent load that has to be managed on similar areas of farmed land.

To illustrate the scale of dairy shed effluent management, the EPA adopts a 10:1 ratio and estimates that a 500 head farm will typically produce the equivalent effluent to a township of 5,000 people. The potential impacts of effluent carry health, biosecurity and environmental risks, as well as risk to reputation both to government and industry.

Dairy farmers need to meet a range of legislative and regulatory requirements for dairy shed effluent, including environmental, planning and food safety requirements. Legislative requirements and industry expectations are outlined in the document *Management of dairy effluent 2008 DairyGains Victorian Guidelines*.

DPI Victoria extension and support programs

Dairy effluent management in Victoria has received fluctuating levels of government and industry attention over the past decade, including joint EPA and DPI audit and extension programs respectively. EPA regulatory compliance data shows that over half of dairy farms do not meet EPA regulatory requirements, but compliance can improve to around 70 per cent following DPI extension programs.

DPI has run dairy effluent extension programs since 1997, providing one-on-one farm extension to enable the development of a farm-tailored effluent management plan covering both the engineering design for effluent systems and the associated best management practices to utilise the nutrient potential.

DPI has provided support to the dairy industry on nutrient and effluent management through three mechanisms:

- regionally-based extension to improve farm productivity and natural resource management
- a statewide nutrient program to align research and extension, engage industry stakeholders and establish frameworks and standards
- research to address knowledge gaps and explore innovative technologies.

Across industry discussions on dairy effluent management have a long and evolving history. In recent times it has become increasingly evident that effective effluent management on-farm needs to be industry-led. A number of industry forums and discussions eventually led to the development of the DairyGains (Dairy Government and Industry Nutrient Strategy) project and the signing of the Memorandum of Understanding (MOU) in December 2005. The four key partners to the MOU are the United Dairyfarmers of Victoria (UDV), Australian Dairy Products Federation (ADPF), DPI and the EPA. The project was managed by Australian Dairy Farmers (ADF) on behalf of the UDV, which is their Victorian State dairy organisation member.

Signals for extension transition from government to the private sector

DPI investment decisions have been based on a market failure framework which aims to identify situations where there is a potential role for government investment. Government investment generally has strong justification during the early stages of the research, development and extension cycles, where there is high technical risk and greatest potential to produce public good benefits (i.e. where the private sector is unwilling or unable to invest to the extent required by society). Relative to this, DPI investment in effluent management is now considered a low priority due to the willingness of the private sector to fill the technical services needed to support the industry. Extension in effluent system design and implementation has been identified as a private sector role where DPI expertise currently dominates, hindering market development.

The Dairy Extension Centre (DEC) was established by the Victorian Government and Dairy Australia in October 2005 as a "virtual" centre of extension capability and program delivery. The DEC operates within the DPI and delivers extension services to meet South Eastern Australian dairy farmers' needs. Direction from the DEC investors' workshop in 2006 indicated a need for DPI nutrient extension programs to establish a transition strategy to transfer the engineering/design component of effluent management to the private sector. It was anticipated that this would allow the nutrient programs to progress further into natural resource fields as opposed to the specialised services provided with effluent system design. This direction is also in conjunction with DPI's broader strategic priority to provide a better service to farmers by collaborating closely with service providers.

Uncertain funding for DPI regional effluent programs also placed the dairy industry at risk if the services were suddenly removed. This uncertainty provided further impetus for a transition to take place. In hindsight, the transition was timely, as funding for dairy effluent extension was wound back considerably in July 2009.

Developing a transition strategy

Strong signals for change necessitated the development of a strategy to enable transition of public extension to the private sector in effluent system design. The strategy was developed by

DPI with strong support from the DairyGains project to build capacity for the private sector to undertake this role.

The transfer of this extension role to the private sector carries many challenges. The years of knowledge, experience, tools and process built within the extension team could not simply be handed over to private industry in the form of technical competencies alone. It was clear that the strategy needed to consider many factors to enable a successful transition to the private sector.

A minimum three year timeline was required to develop and implement the strategy before the hand over of services to the private sector could occur in July 2009. It was premature to remove existing on-ground government services until several key industry tools were developed and implemented across the industry. Four key work areas were identified and implemented in the transition strategy.

1) A communications plan to inform the industry of the pending changes

Many stakeholders are involved in effluent design and management. It was vital to ensure that all of them were kept informed of the changes and implications. Regional workshops and media kept service providers and farmers informed. Other stakeholders were provided with regular updates on how the process was progressing.

The communications plan also encouraged industry feedback to help shape the strategy. A number of reference groups provided detailed feedback to ensure the strategy was meeting industry needs.

2) Industry support and partnerships with key stakeholders

The DairyGains project linked key players from across industry and government together to openly discuss issues and directions. It was this vital link with key industry stakeholders that set the foundation to enable a smooth transition strategy of government extension services to the private sector. Industry needs were addressed and resources were provided to develop consistent messages.

3) Developing resource materials, tools and training to ensure a competent service sector

The transition was dependent on several key pieces of work undertaken by DPI, EPA, Dairy Australia and the DairyGains projects.

The Victorian Guidelines for Management of Dairy Effluent were developed to provide dairy farmers and service providers with a clear and concise overview of their environmental management requirements and industry expectations in regards to effluent management.

The Effluent and Manure Management Database for the Australian Dairy Industry was developed to provide a technical resource of reliable and scientifically validated technical information on dairy effluent. This was funded by Dairy Australia and the National Landcare project.

The guidelines and technical database established a very solid foundation for future on-farm improvement work to be carried out by a qualified service provider network.

In order to ensure ongoing technical consistency and delivery of effluent design services, it was necessary to develop and implement a national training course utilising the Victorian guidelines and the effluent and manure database as key references. The effluent system design course was developed and incorporated into the National Centre for Dairy Education Australia (NCDEA) training packages. The course development is a key component of the transition strategy to transfer DPI's technical knowledge to the service sector. This training course will ensure that service providers who design the systems into the future are trained and qualified to do so. DairyGains, NCDEA and DPI worked together to develop a competency based training course, with the pilot course successfully delivered in June/July 2009.

4) A re-alignment of the statutory planning and non-compliance referral process from government to private sector

The referral process needed to be adjusted to reflect the transfer of services in effluent system design from the government to the private sector. The establishment of a qualified list of services providers who completed the effluent training course meeting all relevant competencies provides the basis for the new referral mechanism. This list will be managed by DPI in the short to medium term (two years) to ensure that levels of competencies are maintained, and relevant referral agencies are provide with a current list of qualified service providers.

Observations and challenges during the transition

The transfer of this extension role to the private sector has many challenges. Years of knowledge, experience, tools and process have been built within the extension team and are difficult to translate into specific technical competencies. Continued support for farmers requires careful planning and a clear strategy for ensuring service providers are competent enough to provide a base level of service for farmers. Developing technical resources and handing them over to a private provider is only part of the process, with issues of quality control and consolidation of learning key considerations. Managing the process once the transfer occurs also requires significant support and guidance.

A number of key observations and challenges became apparent in the development of the transition of public extension to the private sector. The various steps must be carefully planned and implemented. This process required heavy resourcing. Timelines are long, especially when handing over technical expertise developed over a long period.

During development and implementation of the transition strategy it became evident that when services were handed over to the private sector DPI would need to maintain a caretaker role. The transition strategy needed to extend past the planned three-year period so that service providers and industry were supported once the transfer of services occurred. With the Effluent and Manure Management Database for the Australian Dairy Industry completed, the caretaker role is vital to ensure the database remains a contemporary reference. The database is the foundation of knowledge and information supporting the Victorian Guidelines for Management of Dairy Effluent and the national effluent system design course. Provisions need to be developed to enable new emerging technology and science to be incorporated into the database annually. It is uncertain who will maintain this caretaker role when DPI moves out of this area. DPI has committed to this caretaker role for two years, but will need to work on what will happen after this time.

Moving to the private sector creates challenges as farmers adjust to a user-pays system. It is unclear what impact this will have on voluntary farmer requests for assistance, given they will have to pay for it. Other external influences, such as milk price and EPA presence, also create uncertainty around the willingness of farmers to invest in effluent systems. There are also challenges associated with the referral mechanism and maintenance of the list of qualified service providers. Who will maintain the list once the DPI fully withdraw services must be determined.

Industry support and communication were vital to ensure that all stakeholders were informed of changes as well as to ensure that resources were developed to support these changes. The support allowed a number of key components to be developed. The significant investment to create a strong technical and education foundation places the industry in good stead as DPI removes its effluent system design services in pursuit of broader natural resource management outcomes.

Following the considerable and extensive transition the DairyGains project and the DPI are confident that dairy farmers will continue to receive sound advice on effluent system design and management. The lessons learned and the apparent early success of the training course suggests the transition from government support and development to the private sector will continue to evolve smoothly. The fundamentals of (1) a sound communications strategy, (2) high-level industry support, (3) the development of a training package and numerous technical tools enabling the private sector to deliver the service to the required standard, and (4) short to medium term quality control are viewed as key elements. These elements are seen as transferable concepts to other government extension activities aiming to follow the same path of transitioning to a private sector model of delivery.

References

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