A strategic review of livestock truck washdown facilities in Tasmania from a biosecurity and hygiene perspective

Final Report

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Summary of findings and key recommendations

Findings

The key findings from this project are based on extensive consultations with relevant stakeholders with interests in the provision of publicly-accessible livestock truck washdown facilities in Tasmania.

An initial, mandatory consultation list of interviewees was provided by DPIPWE, and was expanded using a snowball (referral) technique. This methodology ensured data saturation (i.e. no substantial new themes emerged from new interviews)[1].

Findings from these consultations can be summarised under the following headings:

Clean trucks are an industry responsibility

Most stakeholders considered that transporters have an overall obligation to assist in controlling the spread of disease and weeds through livestock transport. Effluent containment, responsible effluent disposal and ensuring trucks are washed correctly were seen as the key to meeting these obligations.

It was commonly noted that the voluntary or moral obligations of having a clean truck for biosecurity and hygiene management were of greater importance than the legal obligations.

Interviewees considered that, wherever possible, transporters should arrive with a clean looking truck when picking up stock to:

- minimise the risk of bringing disease and weeds onto a property;
- minimise the risk of infecting clean stock; and
- ensure stock are presented in the best possible manner on delivery.

It was suggested that there is an increasing awareness and expectation of cleanliness within the industry by the general public, particularly regarding biosecurity risks.

The most frequent response from stakeholders regarding the obligations of livestock transporters was that *"… you don't turn up with a dirty truck to pick up a load of stock"*.

Production and containment of in-transport effluent needs tighter control

The amount of effluent generated during transport was generally regarded as an issue that should be managed more tightly. Transporters reported that on-board effluent tanks can be full within 10 km of pickup.

1 e.g. Fusch, P.I. & Ness, L.R. (2015). Are we there yet? Data saturation in qualitative research. *The Qualitative Report*, 20(9), 1408 – 1416.

It was suggested that farmers had an obligation to ensure livestock has been adequately curfewed before transport. This could entail stock being locked up for a withholding period and being restricted to dry feed before transport[2].

The lack of appropriate, en route effluent tank dump facilities (as opposed to washdown facilities) was seen as a problem.

The provision of effluent dump sites was seen as a necessary part of an integrated network of livestock truck washes that reduces biosecurity and hygiene risk.

There is unmet demand for suitable, publicly-accessible livestock truck washdown infrastructure in Tasmania

There are currently three recognised publicly-accessible truck washdown facilities in Tasmania:

- Smithton, near Greenham Tasmania Pty Ltd (owned and operated by TasWater);
- Cooee Point, Burnie (owned and operated by Burnie City Council); and
- Killafaddy saleyards, Launceston (owned and operated by Lethborg Smallgoods).

The Smithton truck wash was the only facility in Tasmania listed as part of the National Truckwash System.

The operators of these three publicly-accessible livestock truck washdown facilities stated that their facilities are not operationally viable, with income not meeting expenditure. All operators either had considered, were considering, or were going to consider, closing their washdown facility as they were not economically viable.

There is a private truck washdown facility at the Tasmanian Feedlots facility at Powranna. Drivers delivering to the feedlot are able to use the washdown after unloading stock.

There is a private truck washdown facility at the JBS (Swift) abattoir at Longford. Drivers delivering to the abattoir were able to use the washdown after unloading. However, access to the washdown facility was curtailed in January 2016 following an incident at the ramp.

The establishment of a publicly-accessible truck washdown facility at the Roberts Ltd Powranna Livestock Marketing Complex is under investigation. The process of commissioning a planning and design study for a truck washdown facility at this site has commenced.

All livestock transporters that we interviewed had their own private truck washdown facilities at their home depot.

It was noted during the review that a lot of farmers cart their own stock in preference to getting a contract livestock carter. The general understanding is that these farmers wash their trucks and dispose of effluent at home on their own property.

Industry was unanimous that there is an overall need for improved access to, and utility of, publicly-accessible livestock truck washdown infrastructure in Tasmania.

There is unmet demand for washdown facilities near all major abattoirs and saleyards where washdown facilities are not currently available. A number of stakeholders considered that operators

[2] Counter arguments to increased curfew times were based on perceived reduction in meat quality from animals curfewed prior to transport.

of abattoirs, saleyards or feedlots should provide truckwash infrastructure at, or near, their facilities for use by transporters following delivery of stock to those facilities.

Stakeholders considered that effective truck washdown facilities should:

- do the job of effectively and efficiently removing gross effluent contamination from the truck – mainly through having sufficient water pressure;
- have effective effluent disposal systems;
- be an easy and efficient system to operate;
- consist of at least a hard pan surface with a concrete apron, with appropriate effluent containment and management; and
- meet appropriate Workplace Health and Safety Standards.

From a user perspective, truck washdown facilities work well when they:

- have good water pressure (at least 200 litres per minute), to wash out the truck properly enough to make a difference to biosecurity and in a reasonable amount of time;
- are on a concrete slab with a 15-20 degree slope, for drainage and user safety;
- have an easy payment system (e.g. Avdata systems – electronic card and just get sent a monthly account), because this is convenient for drivers and transport operators;
- have good, safe access and egress off or near main transport routes, for convenience, and driver and motorist safety; and
- are accessible at a reasonable cost, for economic benefits.

Improved truck washdown infrastructure will deliver additional benefits

Benefits, in addition to biosecurity and hygiene, accruing from improved truck washdown infrastructure include:

- Improved workplace health and safety outcomes;
- Improved road safety and public amenity on the road; and
- Maintenance of Tasmania's 'clean, green' image amongst locals and visitors.

Key recommendations

Based on stakeholder input, our assessment of unmet industry demand and deficiencies in terms of geography and biosecurity and hygiene risk, we consider the following areas for improvement in publicly-accessible, livestock truck washdown infrastructure would contribute significantly to Tasmania's biosecurity arrangements.

Recommendation 1: Establishment of an integrated and economically viable network of at least five publicly-accessible, livestock truck washdown facilities, comprising:

- Smithton – investment to insure surety of the current Smithton truck washdown facility as an ongoing concern
- Devonport / Quoiba area – new truck washdown facility

- Powranna / Longford / Cressy area - new truck washdown facility
- North-east region (e.g. Scottsdale) - new truck washdown facility; and
- Southern region (e.g. Ranelagh) new truck washdown facility.

Recommendation 2: The Tasmanian government maintains responsibility for coordination of an integrated and economically viable network of publicly-accessible livestock truck washdown facilities that reduces biosecurity and hygiene risks.

Given the overall state-wide approach to managing biosecurity and hygiene, the Tasmanian government was generally considered to be the most appropriate organisation to ***coordinate the establishment*** of an integrated and economically viable network of publicly-accessible livestock truck washes that reduces biosecurity and hygiene risks. This review, and the policy framework regarding livestock truck washes in Tasmania anticipated as an outcome from this review, are evidence of this approach by the Tasmanian government.

Recommendation 3: The Tasmanian government and industry work together to determine the capital and operating expenditure required to establish and run an integrated and economically viable network of publicly-accessible livestock truck washes.

In addressing Recommendation 3, the Tasmanian government and industry may consider the following.

The organisations that could be responsible for ***funding of capital improvements*** for the establishment and/or upgrade of publicly-accessible livestock truck washes were suggested to be:

- the Australian government;
- the Tasmanian government;
- the Australian and Tasmanian governments
- the Tasmanian and local governments;
- abattoir and saleyard owners;
- the Livestock Transporters (in part); and/or
- private companies.

None of owners of the three current publicly-accessible livestock truckwash facilities considered that they would, or should, be funding new capital improvements.

The organisations that could be responsible for ***ownership and management*** of publicly-accessible livestock truck washes were suggested to be:

- TasWater;
- local government;
- abattoir and saleyard owners; and/or
- private companies.

Funding options for ongoing ***operations and maintenance*** of publicly-accessible livestock truck washes were suggested to be:

- a full, user-pays system;
- a partial, user-pays system;
- a fully subsidised system; and/or
- abattoir and saleyard owners.

Where facilities are either a full or partial, user-pays system, it was suggested that this revenue would be best collected either through a billing service (e.g. Avdata system) or an industry levy (auto-debit system).

Further considerations

There were two key issues of relevance to these recommendations.

Should new or improved livestock truck washdown facilities in Tasmania proceed, we recommend that:

- It occurs within the broader objectives of the Tasmanian Biosecurity Strategy; and
- Consideration is given to development of an integrated network of livestock effluent dump sites.

Introduction – some background about this strategic review

The Tasmanian government and Biosecurity Tasmania, DPIPWE are seeking to establish and support a robust policy framework regarding livestock truck washdown facilities in Tasmania from a biosecurity and hygiene perspective.

Key considerations for a strategy that will address priority needs over time may include: integration with existing (and proposed) facilities; strategic locations; major transport routes; traffic flow; demand; infrastructure efficiency; competition between facilities; financing models; economic viability; existing and future biosecurity and hygiene risks; and industry and public benefit.

The transport of livestock in trucks on the Tasmanian public road network, so that animals can be moved between farms, feedlots, saleyards and abattoirs, is an essential component of the Tasmanian red-meat, dairy and wool industries.

Livestock truck washdown facilities can provide the necessary infrastructure to address the following matters arising from the transport of livestock via the public roads network:

- biosecurity issues (e.g. weed seed, pest and pathogen dispersal in livestock effluent and soil);
- human hygiene issues and health risks (e.g. carcass contamination and livestock effluent spillage); and
- public amenity issues (e.g road safety issues, public inconvenience and aesthetic issues arising from visual and odour impacts from livestock effluent spillage).

There are currently three recognised publicly-accessible truck washdown facilities in Tasmania:

- Smithton, near Greenham Tasmania Pty Ltd (owned and operated by TasWater);
- Cooee Point, Burnie (owned and operated by Burnie City Council); and
- Killafaddy saleyards, Launceston (owned and operated by Lethborg Smallgoods).

In addition, the establishment of a publicly-accessible truck washdown facility at Roberts Ltd's Livestock Marketing Complex at Powranna is in being investigated. The process to commission a planning and design study for a truck washdown facility at this site has commenced.

Nationally, there are currently around 107 public truck washdown facilities that are part of the National Truckwash System. The majority of these are owned and run by local councils. The Smithton truckwash is the only Tasmanian facility that is part of the National Truckwash System.

RDS Partners Ltd were engaged by Biosecurity Tasmania, DPIPWE to conduct a strategic review of livestock truck washdown facilities in Tasmania from a biosecurity and hygiene perspective.

The overall objective of this strategic review is to identify priorities for improvement in publicly-accessible washdown infrastructure suitable for livestock and rural trucks and advise on approaches to delivering identified priorities over time.

The review is focused primarily on livestock truck washdown facilities. Any benefits accruing through dual purposes (e.g. washdown facilities for large machinery, other commercial vehicles, etc) are subsidiary to the main focus - the livestock truck biosecurity and hygiene perspective.

The review is not concerned with washdown facilities for vehicle presentation purposes.

The following outcomes are expected to arise from this strategic review:

- The Tasmanian government and Biosecurity Tasmania, DPIPWE establish a robust policy framework regarding livestock truck washdown facilities in Tasmania from a biosecurity and hygiene perspective that is supported by key stakeholders
- An integrated and economically viable network of livestock truck washdown facilities that contributes to measureable biosecurity and hygiene risk reduction is developed in Tasmania over time.

The main project output is a well-referenced and defensible report (**this report**) that sets out the methodology, the findings and the recommendations of the review. The report is based on a literature review, key stakeholder consultation and site visits, and includes:

- an overview of the current provision of public and private truck wash facilities in Tasmania
- an assessment of deficiencies in terms of geography and risk
- an assessment of unmet demand
- suggested priority areas for improvement
- finance models, and
- a detailed summary of the consultation with stakeholders.

Methods – what we did

Project management

Before starting this strategic review, the review team met with Biosecurity Tasmania, DPIPWE representatives to confirm expectations, share additional information and resources relevant to the review, and go over any risks, opportunities or issues of concern.

During the course of the review, we met every fortnight with Biosecurity Tasmania and other DPIPWE representatives to discuss emergent issues and prospective conclusions.

A profile of livestock truck washdown facilities Australia and Tasmania

Prior to formal consultations, we conducted a literature review to establish a profile of livestock truck washdown facilities in Australia and Tasmania from a biosecurity and hygiene perspective. The main purpose of the literature review was to ensure that our questions and discussions with stakeholders were informed, focused and relevant.

Additionally, the literature review aimed to inform the Tasmanian government and Biosecurity Tasmania, DPIPWE as they work to establish a robust policy framework regarding livestock truck washdown facilities that is based on this strategic review and is supported by key stakeholders.

Stakeholders – who we talked to

At the start of the project, the review team determined that face-to-face consultation with the following key stakeholder organisations was mandatory:

- Tasmanian Farmers and Graziers Assocation (TFGA);
- Local Government Association of Tasmania (LGAT);
- Livestock Transport Association of Tasmania;
- Tasmanian Agricultural Productivity Group;
- Livestock Biosecurity Network;
- Offices of the Chief Veterinary Officer, DPIPWE;
- Principal Weeds Management Officer, DPIPWE;
- TasWater;
- Burnie City Council;
- Lethborg Smallgoods;
- Roberts Limited;
- Northern Midlands Council; and
- Macquarie Franklin.

Relevant representatives of these stakeholder organisations were identified by Biosecurity Tasmania and the review team. We sent an email to each relevant representative, providing background information about the review and the consultation process. We invited each representative to participate in a face-to-face meeting, where we would ask them specific questions about livestock truck washdown facilities and to provide their knowledge, experiences and perspective of livestock truck washdown facilities, primarily from a biosecurity and hygiene perspective.

Throughout the consultation process, each interviewee was asked if they could suggest other relevant stakeholders we should consult with. Additional stakeholders identified in this manner – and deemed relevant to the strategic review by Biosecurity Tasmania and the review team - were contacted by the review team and invited to participate.

Consultation with these additional stakeholders was conducted by telephone.

See Appendix 1 for a full list of the stakeholders we consulted for the livestock truck washdown strategic review[3].

[3] A note regarding ethics and data management

RDS Partners demands and maintains a high standard of ethics in the conduct of our projects. In consultation projects such as this, we work to the Australasian Evaluation Society code of ethics for evaluation, and apply academic level standards of data collection and storage. Accordingly, this means we:

- ensure compliance with the principles and practices of ensuring informed consent, adhering to the Australian privacy principles
- store all electronic data in the RDS Partners server, protected by passwords and accessible only to staff named in this proposal for the purposes of the project
- destroy data held in the RDS Partners' server within four (4) weeks of Biosecurity Tasmania, DPIPWE accepting our final report

Consultation – what we discussed with stakeholders

Interviews and consultations were guided by a semi-structured interview process designed to encourage open discussion and exploration of ideas and concepts. The final questions and key issues were reviewed and approved by Biosecurity Tasmania. Some of the key issues included:

- priorities for improvement in publically-accessible washdown infrastructure for livestock and rural trucks;
- approaches to delivering identified priorities over time;
- current provision of public and private truck wash facilities in Tasmania;
- what has worked well and what has not worked well in the past and why?;
- unmet demand;
- finance models for washdown facilities;
- biosecurity risk;
- hygiene risk;
- legislative requirements;
- obligations of industry;
- public benefit;
- greatest need for publically-accessible washdown infrastructure for livestock and rural trucks; and
- other stakeholders with whom we should consult.

See Appendix 2 for details of the semi-structured interview questions.

Followup telephone or email conversations were held when the project team thought that additional detail or clarification was needed, or when stakeholders sought to provide more information or opinion.

In situations where informed consent was received, face-to-face interviews were recorded for later referral.

See Appendix 3 for a detailed summary of the consultation with stakeholders.

Site visits to existing and potential livestock truck washdown facilities

The review team visited each of the three current recognised public truck washdown facilities in Tasmania. These were:

- Smithton, near Greenham Tasmania Pty Ltd (owned and operated by TasWater);
- Cooee Point, Burnie (owned and operated by Burnie City Council); and
- Killafaddy saleyards, Launceston (owned and operated by Lethborg Smallgoods).

We also visited to a proposed truck washdown facility:

- Powranna Livestock Marketing Complex (Roberts Ltd).

Site visits were arranged and conducted with the relevant site manager and in each case were conducted immediately following the relevant face-to-face interview.

Key aspects reviewed at site visits were guided by those described in the document *Audit, Need Analysis and Design of Vehicle Washdown Facilities for Biosecurity in Queensland, Australia*[4] including:

- **Site selection**
  - strategic locations, planning restrictions, access, availability of usable land, waste collection and disposal, future expansion, siting and construction (soil, topography, site drainage, water supply, service and access to labour), impact on community amenity and cultural heritage**.**
- **Washdown facility design and construction**
  - service requirements (power, communications, lighting, equipment provided), vehicle requirements, washdown area, water supply, waste collection and containment, storage facilities, access and site security, user safety, signage and public amenity.
- **Operational and management**
  - utilization of the facility, occupational health and safety, washdown procedure, waste management and disposal, weed management, and environmental monitoring.

Reporting

Information obtained from the literature review, stakeholder consultation and site visits was brought together in a draft report. The draft report was reviewed by Biosecurity Tasmania, DPIPWE. Feedback on the draft report was discussed with Biosecurity Tasmania and incorporated where appropriate into the final report (**this report**).

The report is structured around the key questions and addresses the following key elements:

- An overview of the current provision of public and private truck wash facilities in Tasmania
- Deficiencies in terms of geography and risk
- An assessment of unmet demand
- Priority areas for improvement
- Finance models, and
- A detailed summary of the consultation with stakeholders.

[4] Yumpu - Audit, Need Analysis and Design of Vehicle Washdown Facilities for Biosecurity in Queensland, Australia https://www.yumpu.com/en/document/view/38326063/audit-need-analysis-and-design-of-vehicle-fsa-consulting - date sourced 12 September 2016

Findings – what we found

Some *"quotes"* have been edited slightly for clarity.
Coarse language has been replaced in quotes (e.g. [animal manure])

Obligations

Voluntary industry obligations – being a good neighbour and operator

Livestock transporters – moving livestock around and washing trucks at home depot and away

The most frequent response from stakeholders regarding the obligations of livestock transporters was that *"… you don't turn up with a dirty truck to pick up a load of stock"*.

Interviewees considered that, wherever possible, transporters should arrive with a clean looking truck when picking up stock to:

- minimise the risk of bringing disease and weeds onto a property;
- minimise the risk of infecting clean stock; and
- ensure stock are presented in the best possible manner on delivery.

An industry representative noted that *"…90% of truck drivers would be good and would be embarrassed to drive in with a dirty truck full of* [animal manure]*"*.

For livestock transporters, cleanliness and having pride in your equipment was seen as being good for their business reputation as *"…you don't use someone whose equipment isn't looked after".*

It was suggested that there is an increasing awareness and expectation of cleanliness within the industry by the general public, particularly regarding biosecurity risks. Improving truck cleanliness and responsible effluent disposal was seen as a key part of gaining a social licence to operate.

As well as having a clean truck themselves, it was considered that livestock transporters had an obligation to not pick up and accept a load of dirty livestock, but it was noted that *"…it is difficult for a carrier to refuse a load of livestock if it's not appropriately presented*".

Most stakeholders considered that transporters have an overall obligation to assist in controlling the spread of disease and weeds through livestock transport. Effluent containment, responsible effluent disposal and ensuring trucks are washed correctly were seen as the key to meeting these obligations.

As one State government representative considered, *"It is reasonable to expect a clean truck. It is reasonable to expect correct disposal of effluent. It is a reasonable industry expectation that your actions are not impacting on someone else's biosecurity. If a truck is grossly contaminated it should be washed down and the water appropriately disposed of"*.

It was suggested that livestock transport industry codes and guidelines may exist that might include washing of livestock trucks as a requirement. Industry or supermarket quality assurance programs

may increasingly expect or demand a particular level of truck cleanliness and appropriate effluent disposal.

One livestock producer noted that they had a requirement that any truck that delivered their stock has to be clean and that the truck drivers needed to sign off on this requirement.

The review team noted that the TruckCare Livestock Transport Module provides a quality management system for the Australian Livestock Transport Industry livestock transport businesses. TruckCare was originally developed and managed by the Australian Livestock and Rural Transporters' Association (ALRTA) and has been incorporated as a voluntary module of TruckSafe which is managed by the Australian Trucking Association.[5] The key TruckCare requirement related to this review is that "Stock crate flooring is sound underfoot, clean and maintained as required to minimise slipping and falling of livestock". However, no stakeholders we consulted mentioned the TruckCare module.

Key environmental and social obligations of the livestock transport industry were noted as:

- the installation of effluent tanks on all livestock trucks:
- managing effluent to minimise spillage onto the road; and
- responsible disposal of that effluent.

Most people would consider that good livestock transporters would have a wash facility at home where their own trucks could be washed and the effluent contained and disposed of appropriately.

One livestock transporter considered that there was a moral obligation to their drivers to provide job satisfaction and pride in their work, through the ability to contain and responsibly dispose of effluent and to wash their trucks. This transporter noted that his truck drivers had been verbally abused by motorists for uncontrolled effluent spills and that he had found it difficult to retain drivers because of this workplace abuse from the public.

Some livestock transport is undertaken by farmers using their own trucks. It was noted that the same voluntary obligations that would apply to professional transporters - such as minimising effluent spillage onto the road, the responsible disposal of effluent and assisting in controlling the spread of disease and weeds through livestock transport – should also apply to farmers transporting their own livestock.

Good self-regulation was seen as a key obligation of the livestock transport industry and that self-regulation is better than mandated regulation at meeting obligations.

It was considered that these obligations were pretty much the same around Australia.

[5] TruckSafe. What is TruckSafe Accreditation - http://www.trucksafe.com.au/accreditation/what-is-trucksafe-accreditation/ - date sourced 15 July 2016

Farmers - livestock drop-off and pick-up points

It was noted that there has been an increase in the movement of livestock in Tasmania between farms, particularly in the dairy industry where cows are frequently transported and agisted between different properties.

To minimise the amount of effluent generated during transport, it was suggested that farmers had an obligation to ensure livestock has been adequately curfewed before transport. This could entail stock being locked up for a withholding period and being restricted to dry feed before transport rather than *"… pulling them straight off the paddock and the green feed and loading them straight on the truck"* or *"…the farmer also has obligations to take stock off green before carting so there's less* [animal manure] *in the beast"*.

While livestock transporters and some other stakeholders consider animal curfew to be an essential obligation of the farmer regarding effluent management during road transport, it was noted that within the red-meat industry there is a strong opinion that curfewing reduces the meat quality, *"…better grading cattle are the ones locked up for less time"*. It was also suggested that farmers did not want to curfew because *"…everyone was selling by live weight at the destination"* and they want to keep as much weight on the stock as possible.

This paradox of effluent management during livestock transport was a key conclusion of the Meat and Livestock Australia (MLA) review of effluent spillage[6]. The MLA review concluded *"This data reflects an important conclusion that can be drawn from all of the consultation during this study. In simple terms, livestock transporters believe that the main solution to the effluent issue is curfewing. However, graziers, lot feeders and abattoirs have serious concerns about the effect of curfewing on meat quality and they believe that the solution to the effluent issue is some form of effluent containment and this is the responsibility of the livestock transporters"*.

As one industry stakeholder commented, *"…it's a double edged sword - we need a happy medium between requirements for meat grading and hygiene".*

Farmers also have an obligation to not accept a dirty truck picking up stock, but it was noted that *"…it is difficult for a farmer to turn back a dirty truck"*.

Several stakeholders considered that there is also an obligation on farmers to think about where effluent might be going if they let livestock transporters wash out their trucks on their properties. Several industry stakeholders noted that there was an increasing resistance from farmers to accept dumping of effluent from other farms because of disease and weeds risks, and that there was now little or no transfer of effluent between farms.

With regard to the dairy industry, a transporter suggested that all new dairies should be obliged to provide *"…a concrete slab to rinse trucks down on before you go on again to your next load"*.

[6] Meat & Livestock Australia. Review of effluent spillage and animal welfare during livestock transport: a discussion paper - http://www.livecorp.com.au/LC/files/02/02da2caa-8174-4105-a252-803e803c6af5.pdf - date sourced 15 July 2016

Abattoirs, Saleyards & Feedlots – livestock drop-off and pick-up points

There were a number of stakeholders who considered that operators of abattoirs, saleyards or feedlots should provide truckwash infrastructure at, or near, their facilities for use by transporters following delivery of stock to those facilities. This was seen as part of being a good operator and a contribution to the livestock biosecurity and food hygiene chain.

From a food hygiene perspective, abattoir operators expect livestock to be presented in the best possible manner on delivery - with minimal contamination of the animal from stock effluent on the truck along the carcass 'cut lines'. From a biosecurity perspective, saleyard operators/stock agents or feedlot operators would expect livestock to be presented in the best possible manner on delivery and that effluent on the truck generated during the transport is disposed of responsibly.

Having delivered stock to an abattoir, saleyard or feedlot, transporters and some other stakeholders noted that they should reasonably expect to be able to wash their truck at, or near, that point of delivery in order to be able to meet their own obligations regarding responsible disposal of effluent and having a clean truck to pick up their next load.

In regard to the provision of truck wash facilities at these key livestock drop off and pick up points, a Meat and Livestock Australia review of effluent spillage[7] reported that, *"There were mixed responses in terms of providing facilities to allow transport operators to wash trucks at feedlots and abattoirs. Biosecurity and water availability are restrictions to having washdown facilities available on-site. The cost and availability of water is an increasing concern to producers and may inhibit the installation of washdown facilities. Additional effluent into the waste stream is also a concern for some operations. Many abattoirs have free vehicle washdown facilities and have minimal problems with them"*.

One stakeholder considered that there was a significant obligation on abattoirs to manage biosecurity and hygiene risks to Tasmanian with regard to livestock that can come into the State from mainland Australia in order for the abattoir to maintain production.

Livestock truckwash operators – providing facilities that do the job

Stakeholders considered that the truck washdown should:

- work to actually do the job of removing gross effluent contamination from the truck – mainly through having sufficient water pressure;
- be an easy and efficient system to operate;
- consist of at least a hard pan surface with a concrete apron, with appropriate effluent containment and management to minimise biosecurity and hygiene risks. *"The truck wash needs to either drain into the sewer or can be collected and contained (settlement ponds) away from livestock. Effluent and solids need to be disposed of appropriately – collected, contained and dealt with away from livestock.";* and
- meet appropriate Workplace Health and Safety Standards.

[7] Meat & Livestock Australia. Review of effluent spillage and animal welfare during livestock transport: a discussion paper - http://www.livecorp.com.au/LC/files/02/02da2caa-8174-4105-a252-803e803c6af5.pdf - date sourced 15 July 2016

Legal obligations

It was commonly considered that the voluntary or moral obligations of having a clean truck for biosecurity and hygiene management were of greater importance than the legal obligations.

In general, there was limited awareness of the livestock industry's exact legal obligations regarding containment of effluent on roads, the washing of trucks and disposing of effluent. The most common legal requirement noted was for truck drivers not to have an *insecure load*, under the *Road Rules 2009.*

Several people commented that they knew that there were probably regulations relating to biosecurity and disease control, but that the specific rules were likely to be *"…hidden within the legislation"*.

During the course of the consultation, legal obligations for livestock transporters and operators of truck washdown infrastructure were suggested to exist, or possibly apply, under the following legislation:

- *Road Rules 2009;*
- *Litter Act 2007;*
- *Local Government Act 1993;*
- *Environmental Management and Pollution Control Act 1994;*
- *Weed Management Act 1999;*
- *Tasmanian Animal Welfare (Land Transport of Livestock) Regulations 2013;*
    - *Australian Animal Welfare Standards and Guidelines for the Land Transport of Livestock*
    - *Animal Welfare Guidelines - Transport of Livestock across Bass Strait*
- *Animal Health Act 1995; and*
- *Primary Produce Safety Act 2011 (or Meat Hygiene Act 1985 now rescinded)*

Road Rules 2009

Under the Tasmanian *Road Rules 2009***,** Insecure or overhanging load, a driver must not drive or tow a vehicle if the vehicle is carrying a load that is not properly secured to the vehicle. It was suggested that livestock effluent running out of a truck on to the road may constitute an *insecure load*.

However, several stakeholders commented that livestock transporters must be able to access effluent dump points in order to comply with this legislation. A livestock transporter was of the opinion that they could not be prosecuted for an insecure load if they had effluent tanks fitted and used appropriately because they had made the effort to secure the load and it wasn't their fault that there was nowhere to dump the effluent if the effluent tanks were full *"…if you've got effluent tanks then by right you should be meeting your legal obligations. If it overflows they can't really book you because you've tried to secure your load"*.

Litter Act 2007

Several littering offences in Tasmania under the *Litter Act 2007*, may apply to livestock trucks or truck washdown facilities. Under this Act, *litter* includes -

(a) any solid or liquid domestic or commercial refuse, debris or rubbish and, without limitation, includes any glass, metal, plastic, cigarette butts, paper, fabric, wood, food, abandoned vehicles, abandoned vehicle parts, abandoned vessel parts and equipment, construction or demolition material, garden remnants and clippings, soil, sand and rocks; and

(b) any other material, substance or thing deposited in or on a place if its size, shape, nature or volume makes the place where it is deposited disorderly or detrimentally affects the proper use of that place.

Local Government Act 1993

Under the Tasmanian Local Government Act 1993, a *nuisance* includes anything that –

(a) causes, or is likely to cause, danger or harm to the health, safety or welfare of the public; or

(b) causes, or is likely to cause, a risk to public health; or

(c) gives rise to unreasonable or excessive levels of noise or pollution; or

(d) is, or is likely to be, a fire risk; or

(e) constitutes an unsightly article or rubbish.

If a council is satisfied that a nuisance exists, the general manager must serve a notice on–

(a) any person whose act or default contributes to or causes the nuisance whether or not that act or default occurs wholly or only partly in the municipal area; or

(b) if the person cannot be ascertained or found, on the owner or occupier of the land on, or from which, the nuisance arises.

Environmental Management and Pollution Control Act 1994

For the purposes of the Tasmanian *Environmental Management and Pollution Control Act 1994,* environmental harm is any adverse effect on the environment (of whatever degree or duration) and includes an environmental nuisance. An *environmental nuisance* means -

(a) the emission, discharge, depositing or disturbance of a pollutant that unreasonably interferes with, or is likely to unreasonably interfere with, a person's enjoyment of the environment; and

(b) any emission, discharge, depositing or disturbance specified in an environment protection policy to be an environmental nuisance.

For the purposes of this Act, the occupier or person in charge of a place or vehicle at or from which a pollutant escapes or is discharged, emitted or deposited is taken to have polluted the environment with the pollutant (but without affecting the liability of any other person in respect of the escape, discharge, emission or depositing of the pollutant).

With regard to this review, both livestock transporters and the owners and operators of livestock truck washdown facilities in Tasmania would have legal obligations under this Act to not cause environmental harm, including an environmental nuisance.

Weed Management Act 1999

There is a legal obligation for owners of trucks and machinery under the *Weed Management Act 1999* to not spread weeds – if they knowingly spread a weed they are in breach of the Act.

The regulations detail the measures that need to be taken in relation to the importation of livestock that may be carrying declared weeds. For example, the length of the animal's hairs in the coat is not to exceed 25 mm. A permit for importation of livestock in this category can be obtained from Secretary, DPIPWE[8].

Tasmanian Animal Welfare (Land Transport of Livestock) Regulations 2013

- ***Australian Animal Welfare Standards and Guidelines for the Land Transport of Livestock***

The *Tasmanian Animal Welfare (Land Transport of Livestock) Regulations 2013* commenced in June 2013 and were adopted as regulations from the *Australian Animal Welfare Standards and Guidelines for the Land Transport of Livestock*.[9]

These regulations apply to livestock –

(a) transported on a vehicle by road within this State; or

(b) transported within this State or from another State on a sea-going vessel if the livestock are –

(i) contained in a vehicle loaded onto the vessel; or

(ii) contained in a container that is unloaded from a vehicle onto the vessel and reloaded onto a vehicle on the completion of the voyage.

The regulations describe requirements with regard to vehicles, transport, handling, loading and unloading, and livestock journey and watering times.

- ***Animal Welfare Guidelines - Transport of Livestock Across Bass Strait***

The *Animal Welfare Guidelines - Transport of Livestock across Bass Strait* were developed in Tasmania by the Bass Strait Livestock Shipping Committee, comprising shipping, transport and livestock industry representatives from Tasmania and Victoria, and State and Commonwealth regulatory agencies.[10]

The guidelines state that, *"Cattle and sheep to be transported across Bass Strait should be withdrawn from food and water to enable them to empty out prior to being loaded onto the road transport vehicle. The slippery conditions resulting from insufficient clean - out have led to injury and death. Clean out times should, where possible, be in accordance with the Australian Animal Welfare Standards and Guidelines – Land Transport of Livestock. As a minimum standard, sheep and cattle should be withdrawn from green feed for 12 hours prior to loading for shipment. Animals which have*

[8] The Weed Management Act 1999 and its Regulations - http://dpipwe.tas.gov.au/invasive-species/weeds/weed-legislation-and-management-plans/about-the-weed-management-act - date sourced 8 September 2016

[9] Australian Animal Welfare Standards and Guidelines for the Land Transport - http://www.animalwelfarestandards.net.au/land-transport/ - date sourced 15 July 2016

[10] Animal Welfare Guidelines - Transport of Livestock Across Bass Strait - http://dpipwe.tas.gov.au/biosecurity/animal-biosecurity/animal-welfare/legislation-standards-guidelines/animal-welfare-standards-guidelines/animal-welfareguidelines/transport-of-livestock-across-bass-strait - date sourced 14 July 2016

been grazing lush green crops may need a longer curfew. It is recommended that adult sheep and cattle be fed hay during the curfew period to help firm their faeces and sustain them for the journey.

Spilling effluent onto roads or into the ocean is an offence. All people involved in livestock transport have a responsibility to ensure this does not occur".

Animal Health Act 1995

Under the *Animal Health Act 1995*, it is and offence to expose an animal to a List B disease. A person must not knowingly expose any animal or animal material, directly or indirectly, to a List B disease, new disease or unknown disease.

Primary Produce Safety Act 2011 (or Meat Hygiene Act 1985 now rescinded)

The national food safety standard applicable to abattoirs and adopted in Tasmania via the *Primary Produce Safety Act 2011* (the *Meat Hygiene Act 1985* was consequently rescinded) does not specify provision of livestock truck wash facilities. However, "…*if truck washes were installed, the construction and location could not jeopardise the hygienic processing of meat*" (Chris Lyall, DPIPWE – pers. comm.).

Government obligations

A local government representative noted that the Tasmanian State government has obligations to develop and implement the State Biosecurity Strategy to provide consistency in biosecurity arrangements. It was suggested that facilitation of, or investment in, a network of livestock truck wash infrastructure could be a relevant initiative where government had obligations.

An industry representative commented *"The State Government has obligation and responsibility through the Department in setting standards. Industry quite often will not have the broad perspective that government does. Need to have confidence that someone is monitoring what is happening not just within Australia but the rest of the world – this is the responsibility of government and we elect them to do that. But don't regulate just for the sake of it. What I'm saying is that we need to make decisions that are informed by international best practice".*

A local government representative considered that the Police and Road Transport Authority have responsibility to enforce road safety with regard to effluent spillage and that *"…there needs to be 'the threat' of prosecution for effluent spillage onto the road. In some cases, like all industries, people will get away with what they can until they are forced to change"*.

However, that same representative noted that in instances when they did raise the issue of effluent coming from a livestock carter's truck the immediate argument from the truck driver is that there is nowhere to dump the effluent. *"The carters ask 'what is council doing to help?'. It's hard to hit someone with a big stick if there are not facilities to dump"*.

Several stakeholders commented that there was an obligation on government to designate areas for controlled dumping of effluent.

A local government representative noted that there was currently a broader State government initiative on wash facilities, "…*wash facilities is a hot topic with local councils, including State Growth. State Growth is driving this, particularly from weed hygiene facilities. All State wash infrastructure shouldn't be done as a solo effort – a team effort on biosecurity*". In a follow up email to the review team, this stakeholder stated that *"…a number of stakeholders, including TFGA, State Growth, DPIPWE and Councils are partnering to produce a new 'Clean Down' video. The Book End Trust is producing it and its aims to target a very wide audience, from fire fighters to farmers".* They noted that there is currently a Department of State Growth project that is looking at designated signposted areas for washing down vehicles*"…it is being trialled in one municipality; I think either Northern Midlands or Glamorgan Spring Bay"*.

Obligations in other countries

Very few stakeholders had any awareness of obligations in other countries regarding livestock truck washdown facilities or effluent management. However, several stakeholders were aware of, and commented on, the provision of livestock effluent disposal sites by local government in New Zealand.

The following summary of overseas industry obligations is sourced predominantly from the Meat & Livestock Australia review of effluent spillage[11].

New Zealand

The New Zealand National Stock Effluent Working Group (NSEWG) Code of Practice includes guidelines relating to: minimisation of stock effluent spillage from trucks on roads; provision of effluent disposal facilities for stock trucks; and stock effluent management guidelines for local authorities.

Key requirements in the New Zealand NSEWG Code relate to:

- Standing of stock off pasture/crop in preparation for transportation;
- Livestock trucks are equipped with effluent holding tanks with valves that can be opened when the stock truck is parked over a disposal site grate; and
- Effluent disposal sites are available at a number of points along major stock routes and away from urban areas. Effluent disposal stations are also available at points of livestock delivery (e.g. saleyards). The effluent disposal stations are operated by the local council (which operates an effluent irrigation system or similar) and are free.

Europe

MLA was unable to determine whether effluent spillage events in Europe were an issue and it was assumed that if effluent spillage does occur, it is a localised problem.

[11] Meat & Livestock Australia. Review of effluent spillage and animal welfare during livestock transport: a discussion paper - http://www.livecorp.com.au/LC/files/02/02da2caa-8174-4105-a252-803e803c6af5.pdf - date sourced 15 July 2016

The European Commission EU Regulation 1/2005 'Welfare of Animals during Transport' was introduced in January 2007.

All vehicles and trailers need to have a flooring surface that is anti-slip and minimise leakage of urine and faeces from the vehicle. Anti-slip provision can be chequer-plate flooring, a covering of sand or other material, or fixed or removable matting. Minimising leakage of urine and faeces does not mean that the floor has to be 'watertight'. Floors should be kept as dry as possible and it is preferable for excess liquid to drain into a sump or holding tank. Bedding is also required in all transport vehicles for comfort and adequate absorption of urine and faeces when transporting young animals. Appropriate litter is recommended over bare flooring if bedding is not used for older animals.

Bedding is a requirement for all animals on long distance transport (over 8 hours). The bedding must absorb urine and faeces adequately. The requirement for bedding for long distance transport may minimise potential for effluent and manure spillage from the vehicle as this would absorb the majority of effluent during the trip and minimise leakage from the vehicle.

Livestock transport vehicle design common in Europe has a fully enclosed lower section of the trailer. Only a few slats are left open for natural air flow and forced ventilation is required for long distance transport. This may mean that effluent and manure are not able to come out of the trailer during transport in similar quantities to Australian conditions.

Recommendations for sumps and holding tanks are outlined in the regulation. However, it is not known the full extent of implementation of these devices. If there has been a large take-up of these devices this would further minimise effluent spillage from European livestock transport vehicles.

USA

The Animal Welfare Regulation summarises the responsibilities for transporters of animals to, from and within the US that they must provide suitable transport trailers, a clean environment and appropriate litter during transport. Enclosures used to transport animals are to have solid bottoms to prevent leakage during transport, and to allow for thorough cleaning and sanitisation. The enclosure should contain clean litter of a suitable absorbent material that is non-toxic to the animal. There should be a suitable amount of the litter to absorb and cover excreta.

The 'Cattle and Swine Trucking Guide for Exporters' has been designed to provide a directive for livestock transporters. It outlines vehicle design considerations, bedding recommendations, ventilation, and loading and unloading considerations. Bedding material is recommended to absorb animal waste and provide better footing. It also helps to keep animals warm in winter and cool in the summer. Sawdust, wood shavings, straw, and sand are recommended as suitable bedding materials. Sawdust and wood shavings are recommended to be spread about 5 cm deep, straw 8-10 cm deep, and sand at least 3 cm deep on the truck floor.

The guideline outlines that authorities may impose fines if the effluent spills onto the road.

Canada

The Health of Animals Regulations outlines the manner that animals are transported within, into and out of Canada. As part of these regulations, there must be provision for adequate drainage and

absorption of urine within the vehicle. Sand or safe footholds, in addition to adequate bedding, are required to ensure animals are able to stand during transport.

The Canadian Agri-Food Research Council (2001) has implemented the 'Recommended Code of Practice for the Care and Handling of Farm Animals – Transportation'. This document outlines the requirements for the care and handling of animals during transport. The code recommends that provision must be made for the drainage or absorption of urine during transport. Suitable bedding such as straw, wood shavings or matting should be added to the vehicle to assist in absorbing urine and faeces. Fresh bedding is required for each new load.

Benefits to be derived from improved livestock truck washdown infrastructure

Biosecurity benefits

Livestock disease

It is the opinion of the Chief Veterinary Officer, DPIPWE, that the biggest livestock disease risk associated with livestock transport in Tasmania is the faecal-oral spread of endemic diseases (e.g. Johne's disease) caused by the disposal of livestock effluent onto pasture.

"As stock are not feeding on the truck, the risk of faecal-oral disease transmission during transport is probably low, unless there is a large level of effluent build up in the truck. If there is a large amount of effluent and [animal manure] *in the truck, then the risk increases as an animal is more likely to slip and go down and could ingest some effluent."*

With regard to endemic diseases like footrot *"… it's a possibility that something like footrot could be transferred on a truck, but a truck isn't any greater biosecurity risk than any saleyard they have been through - all stock handling areas have the same risks".*

Most stakeholders considered that from an animal biosecurity perspective, a key benefit to be derived from improved livestock truck washdown infrastructure would be to reduce the risk of the spread of endemic disease by controlling effluent disposal. Appropriate effluent disposal from trucks was seen as a major benefit of improved washdown infrastructure with regard to animal disease control.

With regard to emergency exotic diseases (e.g. foot and mouth), the Chief Veterinary Officer considered that *"…it is difficult to predict the benefits to be derived from improved livestock truck washdown infrastructure. This is because, in the case of an exotic disease, it is difficult to predict where truck wash facilities may be needed and a different level of truck cleaning would be required than is expected on a routine basis. In emergency situations, temporary washdown/cleandown facilities may need to be constructed at appropriate locations"*.

Notwithstanding this, in an emergency exotic disease control situation, it is likely that the only initial transport permitted would be for animals to go to slaughter - followed by the strict requirement to then clean the truck. As such, having livestock truck wash facilities already established near abattoirs may be beneficial in this situation.

Several stakeholders commented that benefits to be derived from improved livestock truck washdown infrastructure would be to reduce the risk of spreading animal disease (mainly Johne's

and footrot) in manure during transport and that effluent could be disposed of more regularly so trucks weren't carrying disease around, and for future exotic disease protection.

Weeds and environmental pathogens

It was suggested by several stakeholders that a key benefit of improving livestock truck washdown facilities was that it should reduce the spread of weeds, because a truck that has been washed should reduce the exposure of stock to weeds and seeds during transport. This would help protect agricultural land, public property, and natural assets, particularly with regard to the control of declared weeds. In addition, weed seeds in effluent could be contained and managed through appropriate effluent management provided at improved truck wash facilities.

The main biosecurity risk with livestock transport is the spread of weeds, particularly from animals that have originated from extensive grazing. During livestock transport, weed seeds are primarily transported in the rumen, but can also be attached to hooves, hide, skin and wool. Seeds can survive several days through ruminant digestive tracts, with harder seeds having a better chance of survival than softer seeds. (MLA 2006).

In a survey of 264 Australian organisations involved in weed control, the provision of truck washdown facilities was identified as one of the most effective strategies for minimising weed spread (DPIPWE internal document).

However, with regard to weed biosecurity, a State government representative noted that *"…just hosing the visible surface of vehicle may not remove all weed propagules. There is also a difference between the biosecurity risk from weed seed in effluent on the livestock trailer and the biosecurity risk of the truck itself (such as weeds and seeds in wheel arches and the engine bay). For the truck itself, high pressure air may be more appropriate than high pressure hoses to get rid of contaminants in places like engine bays and within wheel arches".*

It was also suggested that a benefit of improving livestock washdown facilities was that it could reduce the spread of pests and environmental pathogens that may be spread in soil. Two stakeholders noted that soil contaminants such as Phytophthora and Chytrids could be moved from high risk areas in soil on hooves and that this could be an issue, especially when transporting stock between properties and saleyards.

As with weed seeds, pests and environmental pathogens that may be in soil could be contained and managed through appropriate effluent management provided at improved truck wash facilities.

Human hygiene benefits

A zoonotic disease is a disease that can be spread between animals and humans. Zoonotic diseases can be caused by viruses, bacteria, parasites, and fungi. Zoonotic organisms from animals can cause health impacts with humans and the potential threat of disease transfer via livestock transport is a risk.[12] However, in the Meat & Livestock Australia review of effluent spillage, the risk to public health was perceived to be the least significant community issue.

[12] Meat & Livestock Australia. Review of effluent spillage and animal welfare during livestock transport: a discussion paper - http://www.livecorp.com.au/LC/files/02/02da2caa-8174-4105-a252-803e803c6af5.pdf - date sourced 15 July 2016

The MLA review suggested that a benefit of improved truck wash facilities would be to provide an interruption to the flow of human pathogens, mitigating the zoonosis risk. Truck drivers and other livestock workers may benefit by reducing the exposure to potential zoonotic disease transfers from having cleaner trucks.

Several stakeholders considered that the key hygiene benefits to be derived from improved livestock truck washdown infrastructure was in minimising food contamination that could occur through processing of unclean stock, where the wool or hide was contaminated with effluent before slaughter. They commented, *"…don't want them coming on dirty trucks. Issues are with meat hygiene with dirty sheep"* and *"…with regard to zoonotic diseases, issue would be if animals going into abattoirs are covered in* [animal manure]*, then contamination of carcass".*

Industry benefits

Improved workplace safety would be a key benefit of improving livestock truck washdown facilities.

"The risk of personal injury to truck drivers should be reduced as a clean truck should reduce the risk of slips and falls. New or upgraded truck wash facilities would need to be designed to provide a safe work environment. This may include making arrangements for the safe use, handling, storage and transport of plant and substances including electrical risks, working at heights, slippery surfaces, hazardous substance handling, and fencing of waste disposal and storage ponds. Appropriate provision for control of airborne contaminants should be incorporated into the design of new facilities to ensure that users on-site are not adversely affected by dust" (MLA 2006).

One truck washdown owner noted a preference for users of their facility to have been inducted into their organisational workplace safety system before accessing the site.

A livestock transporter considered that an industry benefit would be to increase retention of drivers by reducing the amount of abuse they received from motorists because of effluent spillage.

It was suggested that industry may benefit economically through improved livestock truck washdown facilities. Several comments were made that it takes a lot of a driver's time and resources to wash a truck, including: the actual time to wash the truck out (*"…a couple of hours for a B-double"*); the time and fuel to travel to a truckwash *("…can drive 100 odd km to wash a truck and then go back again to put another load on"*); and the time waiting if the truckwash is already being used.

Having to travel large distances to dispose of effluent and appropriately hose out a truck in order to get a return load was seen as highly inconvenient and inefficient. With improved, strategically located truck wash infrastructure, industry considered that they would increase efficiency by being able to do more return loads and use less fuel carting full effluent tanks and travelling between current wash facilities. It was suggested industry may use less water when removing effluent if they could wash their trucks more easily and frequently, as there would be a reduced build-up of excrement which then needs more water to wash off.

Several stakeholders noted that the overall agricultural industry would benefit economically from improved truck washdown infrastructure, through the contribution this infrastructure would make to reduce the overall risk of the spread of weeds, pathogens and animal disease.

Many stakeholders noted a significant benefit to the whole agricultural industry of improved truck washdown infrastructure would be an increase in 'the perception of biosecurity'*,"…there is a huge value in the perception of biosecurity." "It would assist in getting farmers to have the mindset that*

they shouldn't be loading stock on a truck covered in [animal manure], *or that they shouldn't be accepting a truck being washed out in their paddock. It would help in getting in the mind of both the truck driver and the farmer and that they have a role to play in helping stop the spread of disease. If the livestock industry is seen to be taking an interest in biosecurity and hygiene control - through improved washing of vehicles - then everyone else will lift their game"*.

It was suggested by an industry representative that industry would benefit from increasing farm biosecurity and that it is becoming a more accepted way of operating. There is greater expectation that owners of vehicles will be acting responsibly and it was suggested that *"…a time will come when if you turn up with a dirty vehicle the owner won't let you on property"*.

The livestock transport industry specifically – and the whole agricultural industry in general - would benefit from a better public image and reputation through an improved ability to clean livestock trucks. "*It tells the public that industry takes this issue seriously and is doing the right thing"* and *"…having effluent running out the back of a truck is not a good look"*.

As one stakeholder stated when asked the benefits to industry of improved livestock truck wash infrastructure, *"Improved perception of agriculture, improve the right to farm; improve ag industries' public image, improve how ag is perceived in our greater community. Ag is one of the largest growth potentials in the state but if we don't have a good public image we are all tarred with same brush and we won't execute on our opportunities"*.

Public benefits

Improved road safety and public amenity on the road were considered the main public benefit of improved livestock truck wash infrastructure. Stakeholders talked about effluent spillage onto roads causing slippery roads or dirty windshields that could increase the risk of road traffic accidents.

Road safety issues with effluent spillage at urban centres, traffic lights, sharp corners and roundabouts, steep hills and truck stop areas were identified as of high significance within the industry stakeholders. All of these areas were identified as hazard spots (MLA 2006).

"The carriers will tell you about the public benefits – they cop a bit of angst from it. It's not much fun driving behind a truck spilling that all over you".

Local government representatives noted that they do receive occasional complaints from motorists about effluent spillage onto roads, although industry commented that there haven't been too many large public outcries about it or complaints to government.

One local government stakeholder didn't see a direct benefit to local government from improving truck washdown infrastructure. In contrast, several industry stakeholders considered that councils would benefit from cleaner roads and improved amenity for tourism.

Some environmental community benefits suggested were reducing the risk of spreading weeds through effluent spills when travelling though reserved lands and reduced contamination of waterways from inappropriate disposal of effluent.

It was proposed that increased efficiency for livestock transporters and more efficient farming through better biosecurity may benefit the public with cheaper meat prices.

If livestock truck washdown infrastructure was established near Devonport - and was a multi-use site that could be also be used by the travelling public as well as industry - it was thought the public

would have biosecurity benefits by being able to have a vehicle underbody wash in a controlled environment when coming off the Spirit of Tasmania from the mainland.

Benefits of a Clean and Green Tasmania

One of the most common sentiments expressed by stakeholders during consultation for this strategic review was that improved livestock truck washdown infrastructure would be a benefit for the 'Clean and Green' image of Tasmania.

Some specific comments were: *"It would benefit Brand Tasmania and its 'clean & green' foundations"*; "*Protecting agriculture's clean and green image in Tasmania"*; *"Benefits from truckwashes would arise though the added capacity – as an island – to say that we are as clean as we can be"*; *"It would show that industry cares and government cares"*; and *"People travel to Tasmania to consume our food and wine because we are seen as special -because we are clean and green".*

In this regard, it is worth noting that New Zealand National Stock Effluent Working Group (NSEWG) Code of Practice stated that the 'clean green' image of New Zealand was a key reason for improved livestock truck effluent infrastructure, such as strategically located effluent disposal stations.

An overview of existing livestock truck washdown facilities in Tasmania

The National Truckwash System

In 1993, Avdata, under the guidance of the saleyard and transporters associations, established a system for washing trucks. The National Truckwash System is now used at many saleyards and abattoirs across Australia.[13]

Avdata (www.avdata.com.au) is the central billing agent for many Australian truck washes, with the Avdata Truckwash Billing Service managing truckwash billing and reporting for more than one hundred truckwashes across Australia. The principles of the System are:

- Each truck needs just one electronic 'key'.
- Each transporter receives a single account from Avdata.
- Every Truckwash owner receives a single payment from Avdata.

As at 20 June 2016, there were 107 truck washes - and their charge rates - listed as part of the National Truckwash System. Around 80% of these were operated by regional councils/shires.

The Smithton truck wash was the only facility in Tasmania listed as part of the National Truckwash System (Figure 1).

[13] National Truckwash System - http://www.avdata.com.au/pdfs/brochureTruckwash.pdf - date sourced 14 July 2016

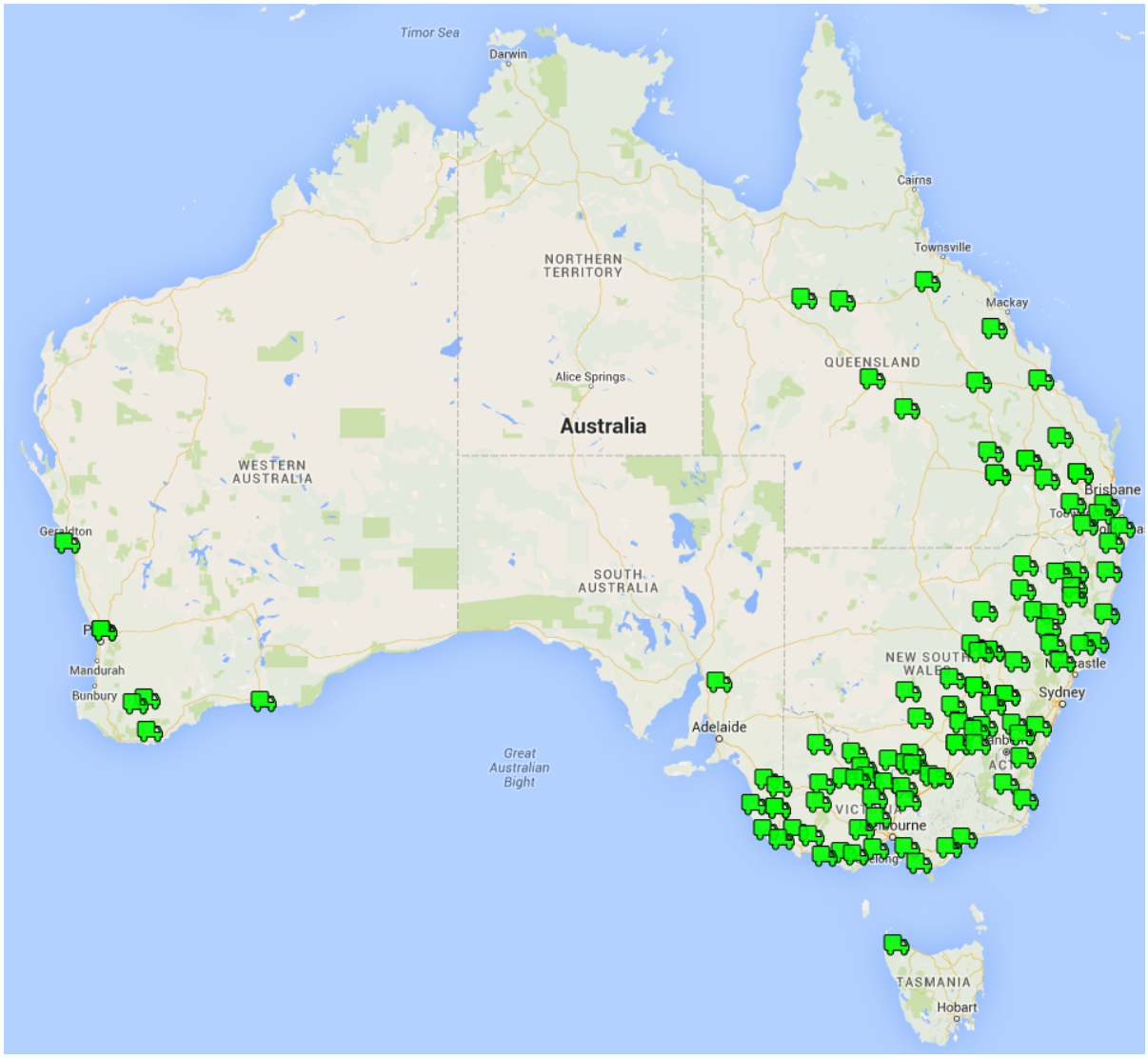

Figure 1. Map of National Truckwash System[14]

Publicly-accessible livestock truck washdown facilities in Tasmania

There are currently three recognised publicly-accessible truck washdown facilities in Tasmania:

- Smithton, near Greenham Tasmania Pty Ltd (owned and operated by TasWater);
- Cooee Point, Burnie (owned and operated by Burnie City Council); and
- Killafaddy saleyards, Launceston (owned by and operated Lethborg Smallgoods).

In addition, the establishment of a publicly-accessible truck washdown facility at the Roberts Ltd Powranna Livestock Marketing Complex is being investigated.

[14] National Truckwash System map - http://members.avdata.com.au/PublicLocationMapServlet?type=2 – date sourced 14 July 2016

The review team visited each of the three currently recognised publicly-accessible truck washdown facilities in Tasmania and the proposed Powranna site (Figure 2). Site visits were arranged and conducted with the relevant site manager and, in each case, were conducted immediately following the face-to-face interview.

Figure 2. Current and proposed livestock truck washdown facilities in Tasmania, as at September 2016

Smithton (near Greenham Tasmania Pty Ltd, Smithton) - owned and operated by TasWater

The Smithton truck washdown facility is strategically placed, as it is at the end of the transport line in north-west Tasmania for many livestock trucks delivering to the Greenham Tasmania Pty Ltd abattoir, which is a couple of hundred metres from the truck wash site, or the Roberts saleyards which are on the same site. The truck wash is on Roberts Ltd land and is owned and operated by TasWater.

The Smithton site is just off the main highway and is in a major truck zone. Access to the site is excellent as there is a straight road approach and good egress with a long line of sight. As well as the Roberts Ltd Smithton saleyards, there is also a 24 hour United fuel site that can be accessed by the transport industry.

The wash consists of a single bay, concrete slab and apron that drains into a covered sump pit that is then pumped to the sewer main. It was noted that there was good filtration to the pump provided it was only used for livestock effluent and not abused by other users.

There are 16 users with Avdata purchased keys and it is only meant to be for livestock trucks. The washdown procedure is that trucks come into the site, park on the hard stand, start the system with their Avdata key and hose off using the high pressure hose. The hard stand is big enough for a standard semi-trailer, but a B-double would need to wash one trailer and then move forward to wash the second trailer. The site has lighting providing 24 hour access. The site is unfenced and there is no security. Signage on the site indicates the facility as being run by 'Cradle Mountain Water'.

The Roberts Smithton saleyards wash into the same system as the truckwash, via a concrete spoon drain, so when there is a livestock sale on it puts a significant load on the system.

The solids in the sump pit are pumped out twice a week at a cost of about $1000 per week. There is currently room available for future expansion.

Figure 3. Smithton livestock truck washdown facility

TasWater staff accessing the site are required to have been inducted into the relevant TasWater Workplace Health and Safety (WHS) system.

TasWater representatives stated that they have no interest in owning or operating livestock truck washdown facilities and only own and operate the Smithton truckwash because they inherited the site from Circular Head Council as part of water and sewage infrastructure reforms. They consider that their current involvement is by default.

The facility is reported to be constantly abused by non-livestock users, who wash gravel and grain into the sump causing the pump system to malfunction. Some livestock drivers using the system use sawdust or the like for bedding in the trucks and this clogs the pipe work. Every time it blocks and overflows it cost about $5000 to fix. The system then overflows into a water course, which may be an environmental issue. TasWater representatives considered the overall operating cost of the site of around $100 - $150K per year to run – and maybe even up to $300K - to be prohibitive.

The TasWater representatives consulted considered that the Smithton facility needed a significant upgrade to address operational issues, improve safety and amenity and to lower operational costs.

TasWater have two plans for the site: Plan 1 – shift the risk to someone else; or Plan 2 – upgrade the site with fencing, cameras and load monitoring. If the site was to be upgraded, TasWater suggested that for WHS purposes it should have a gantry and running decks to wash trucks. It needs improvement to the sedimentation traps. The truck wash is not big enough and all the pumping stuff is 'dinky'.

A DPIPWE internal document provided to the review team stated that the Smithton truck wash is currently the only publicly accessible truck wash in the state that meets best practice standards of capacity and efficiency.

The TasWater manager of the truck wash suggested that the whole thing should be pulled apart and rebuilt. "*While the site is currently 'managed', it is exhausting"*. He indicated that they would like to convert the site to a septic dump site which could include livestock effluent disposal as well, noting that *"…we can build a combined system"*.

Transporters thought the Smithton truckwash was pretty good because of the proximity to the Greenham abattoir (100 m down the road), the Avdata system, and that it worked well with plenty of water pressure and *"…you could washout in about 25-45 minutes and be gone and get home in the day. Although you can sometime wait to wash, maybe 30-45 minutes".*

It was noted that the Smithton truck wash fitted nicely as part of the supply chain being at the end of the transport line at Smithton. An industry representative stated that *"…having Smithton wash functioning is important".*

The Smithton truck wash was often the only truck wash facility that some stakeholders were aware of – although some thought it was owned and operated by either Greenham's or Circular Head Council. Concern was expressed by some stakeholders that the only decent publicly available wash in the State was at Smithton.

The Smithton truck wash was considered to be in high demand because of the meat and dairy industry, particularly the Greenham abattoir. Demand for the truck wash had increased through *"…Greenham recently doubling production and looking to increase production even more".*

Cooee Point (Burnie) - owned and operated by Burnie City Council

The Cooee Point truck washdown facility has good road access from a formed roadway off the main highway. The site owner considers Burnie to be a strategic location for the livestock industry because all main roads in the area lead to Burnie. The facility can service B-doubles and multi-deck semis. The facility is restricted to livestock trucks. The wash facility is not sign-posted off the main highway, so you have to know it is there.

The facility comprises a single bay, concrete apron of about 25 m length x 6 m width. A 20 m long 25 mm hose coming off the TasWater 50 mm line is provided to wash vehicles down. The waste water from the concrete apron is initially deposited into a settling sump which flows into a pump well that pumps to the TasWater sewer main. Heavier solids in the sump are pumped out once or twice a month, but more frequently over summer as usage increases in dry weather. Water pressure was considered to be good by the owner. There is a rough corrugated iron fence on two sides of the washbay.

Access to the wash is via a 24 hour key system – whereby each user is charged an annual fee to purchase a key. The current fees are set by Burnie City Council each year and were originally based around the Avdata rates for the Smithton truck wash[15].

The 2015/16 year rates were: multi-deck semi-trailers ($1,838); semi-trailers ($1,379); and flatbed trucks ($919). The site is currently utilised by two carriers, one based in Burnie and the other in Boat Harbour, and a total of seven trucks. Drivers can dump effluent without a key, but this isn't seen a large issue *"…it's probably happening but don't know to what extent"*.

Figure 4. Cooee Point, Burnie livestock truck washdown facility

[15] National Truckwash System – charge rates - http://www.avdata.com.au/pdfs/truckwashChargeRates.pdf - date sourced 14 July 2016

Cooee Point costs council about $30-$40K per annum to run. They have had to replace the pump three times this year as well as the sewer line. "*It's definitely not a user pays system – but it's better than spending $20K on an Avdata system that we wouldn't get back".*

The washdown procedure is that drivers access a locked hose reel cabinet with their key. It takes about two, to two and half, hours to wash a multi-deck semi. The site can be lit and can be accessed 24/7.

The site is surrounded by a little penguin colony. There is no weed management of the site. The effluent is monitored for chemicals. The site is zoned open space and is sometimes used by RV owners for camping. There are no plans to expand the truck wash facility.

The Cooee Point facility was described by the manager as very basic at the moment. *"However, the EPA has said if we try to change this site that it would require a much higher level of regulation. It is complying at the moment and is currently regulated by council. If we upgrade Cooee Point it would need a roof to minimise spray drift. It would be $150-$200K for a new truck wash for Burnie City Council based on what EPA would want based on new guidelines (based on the Quoiba proposal needing a roof and triple interceptor traps)".*

Historically, Cooee Point was the site of a saleyard and an abattoir but these have both now closed. When the Cooee Point saleyards were operational, 15-16 trucks would use the truck wash. At this time, the access was provided for a nominal fee and the council provided the water and managed the waste water. The charge rates have been increased significantly now that TasWater charge council for water and trade waste. It was suggested that a lot of carriers may have stopped using the site because of the increased cost.

Council used to let all other truck drivers use the wash facilities (e.g. gravel, timber carters, log trucks, etc) but there were too many issues maintenance-wise with bark clogging up the impellers and gravel wearing the pumps out. There was some angst from other truck drivers when they were excluded and the site suffered vandalism from people breaking in to use it. Now it is restricted just to livestock carriers. Council has also looked at closing the Cooee Point facility entirely, but they got so much negative feedback from the livestock community they have kept it operational for the time being.

Notwithstanding this, the life of the Cooee Point truck wash is limited at its present location. According to the council, the site will be developed for other activities in the future, noting that it would be an ideal site for a hotel or residential area. This was also commented on by some industry stakeholders.

Livestock transporters interviewed considered that Cooee Point was *"…too costly to get a key and that you may as well use a garden hose"* and that *"…it takes two hours to wash a trailer out. Would rather washout in Smithton in 25-45 mins and be gone"*.

Killafaddy saleyards (Launceston) - owned and operated by Lethborg Smallgoods

The Killafaddy truck washdown facility is located within the saleyards. Access is via bitumen road within the complex.

The facility comprises a double bay, concrete apron, with the bays separated by an iron fence. Effluent is washed into a sump which is then pumped into the sewer main.

The washdown procedure is a coin operated system to access the hose and turn the water on. The owner noted that, based on the revenue, it is not used that much. It was estimated about ten trucks per week use it as there is about $100 in coins per week, *"…unless someone's worked out how to use it for nothing"*. It costs $1000 to get it pumped out if there are problems with the pump and there are also TasWater sewage costs.

The owner commented that it's not worth running it now and that if a truck washdown facility is built at Powranna they would probably close the Killafaddy washdown. There are no plans to upgrade the facility. *"All it needs is a coat of paint and a new hose occasionally… what's there to upgrade? You just wash out your truck and that's what it does"*.

Some stakeholders wondered whether Killafaddy saleyards (and truck wash) was operating.

Transporters did not like the coin operated washdown procedure at Killafaddy. Comments included: *"you have to carry your own hoses and it's got a stupid coin system – you rush to get up and hose before time runs out"*; and *"…Killafaddy wash is outdated. The system is outdated. It does work but it's a coins system and five $1 coins a time. Can be $100 for a B-double. It's like a boot camp running back and forward to put in coins. Our pump broke down the other day and for 2 semis and a B-double was $150 in $1 coins"*.

Several industry stakeholders commented that Killafaddy saleyards should be closed down and everything moved to a central spot at Powranna. It was noted that a Launceston City Council report into the Killafaddy saleyards had suggested the saleyard be closed down, noting *"…it provided an indicting report on the environmental impact of saleyards"*.

The location of Killafaddy, on the outskirts of the city of Launceston, was considered by some review participants to increasingly have a negative impact on public amenity in this peri-urban area.

A DPIPWE internal document provided to the review team stated that *"…there is a low capacity facility available at Killafaddy saleyards, Launceston, which has an uncertain future"*.

Figure 5. Killafaddy, Launceston livestock truck washdown facility

Other public washdown facilities

During the consultation process it was noted that there is a basic wash facility at Quoiba saleyards, Devonport. This was described variously as *"…a pseudo-facility. Not the perfect set up, as only do a half wash*"; *"a hose";* or *"just a sprayer, it can spray down the trucks"*.

Notwithstanding this, it was noted that there had been a recent proposal to build a new truck wash facility at Quoiba, which had initially been allocated external funding. However, one stakeholder thought that there was an issue with the original design not being for an undercover facility which the EPA had declared a mandatory design feature. As such, this had increased the cost over the available budget and the project did not proceed.

It was also stated that there was a truck washdown facility at Lady Barron Port, Flinders Island that was owned and operated by TasPorts. Apparently the sump fills quickly at this site. There are three trucks on Flinders Island that cart livestock.

Powranna Livestock Marketing Complex (proposed) – to be owned and operated by the Northern Midlands Business Association

The following extract from a 2016 report by Macquarie Franklin[16] provides a clear summary of the situation at the Powranna complex.

"The project proposes the construction of a publicly-accessible truck wash facility to be co-located at the recently constructed saleyard at Powranna Road, in the northern midlands of Tasmania. The truck wash is an additional enterprise located in the Powranna Road Precinct of the Northern Midlands Rural Processing Centre which is a strategic development by the Northern Midlands Council to support agricultural and economic growth in the region.

The primary purposes of the truck wash facility are to:

- *prevent the spread of weeds and diseases by livestock transport trucks and other large agricultural vehicles; and*
- *provide a reception point for livestock truck effluent and thereby enables compliance with environmental protection legislation and provides for public safety.*

The provision of truck wash facilities at Powranna would continue the impetus of the new Powranna Saleyards as the premier livestock trading centre in the State and promote the attraction of other supply chain participants into the region.

Provision of a public access truck wash at a central point in the State will reduce costs to livestock transport companies, remove barriers to entry for smaller livestock transporters and improve public safety.

The facility would consist of two, undercover/all-weather wash bays including an effluent management system to allow liquid effluent removal by recycling for irrigation. Solids removal would be limited and removed from site to an appropriate location.

[16] Macquarie Franklin (2016). Business Case. Truck wash at the Roberts Limited Powranna Livestock Marketing Complex

Billing services would be automated and provided by Avdata, who provide this service to the majority of truck washes in Australia. The truck wash site would be leased from Roberts Limited on a peppercorn rent arrangement. Roberts would also supply power and water at a cost….

The truck wash facility would in the initial phase be predominantly used by trucks visiting the saleyards, however it will be available to a range of users through the purchase of an activation key. Potential users include livestock transport trucks, agricultural and civil contractors and farmers.

Based on the number of sales per year (50 days), the time to wash (50 mins) and the available time for trucks at the site (12 hrs per day) it is estimated that usage will amount to around 1440 washes per annum associated with the sale days (50 sale days x 28 washes). The proposed operation is based on the use of 8 ML per annum at a maximum operational flow rate of 3 litres/sec.

Liquid waste will be irrigated to a 4.5 ha site provided by Roberts Ltd. Solids will be excluded by a grate and pit system and will be removed from the site to an agreed location most likely on a 6 month basis."

Notwithstanding this proposal to develop a washdown facility at Powranna, several stakeholders commented that a washdown facility had been a part of the original plan for the Powranna saleyards development and that they were disappointed the truck washdown had not gone ahead as part of the development.

Figure 6. Powranna, proposed livestock truck washdown facility site

Private livestock truck washdown facilities in Tasmania

Abattoirs and Feedlots - livestock drop-off and pick-up points

There are two private livestock washdown facilities in Tasmania. One at Tasmanian Feedlots Pty Ltd (Powranna) and the other at JBS (Swift) Australia (Longford abattoir). Most stakeholders recognised that private washes are focused on meeting the needs of the owner's clients and customers. It was suggested that private washes may provide a better service than public washes as they are targeting their own business stakeholders.

Tasmanian Feedlots (Powranna)

There is a truck washdown facility at the Tasmanian Feedlots facility at Powranna. Drivers delivering to the feedlot are able to use the washdown after unloading stock.

A livestock transporter noted that a problem with this washdown was that *"…if it's a hot day and the cattle at the feedlot are drinking you've got no water pressure"*.

One stakeholder thought that there were already two separate washes at the feedlot – one for cattle trucks and one for feed trucks and that the feedlot managers actively encourage all drivers to use the washdown facilities before leaving the feedlot.

JBS (Swift) Australia (Longford abattoir)

There is a truck washdown facility at the JBS (Swift) abattoir at Longford. Drivers delivering to the abattoir were able to use the washdown after unloading. However, access to the washdown facility was curtailed in January 2016 following an incident at the ramp.

When drivers were permitted to use the truck washdown facility, there was still an issue because the wash is near the unloading ramp. *"So if there is a backlog of trucks waiting to wash, trucks with stock couldn't unload, and those waiting to wash had to move on".*

One livestock transporter noted that *"…JBS did still let drivers dump their effluent tank at the ramp, which then runs down into their settling ponds, but you just can't wash out. So now you can't wash out and you just have to go".* They also stated that there is also a smaller wash out the back of JBS that could only wash a tray truck *"…but the site's got no slope so the effluent doesn't drain away"*.

It is worth noting that there are three other abattoirs in Tasmania. These are:

- JBS Australia (Devonport/Quoiba);
- Tasmania Quality Meats (Cressy); and
- Cradoc Hill (Cygnet).

There are no private livestock truck washdown facilities at these abattoirs. There are no publicly-accessible washdown facilities near these abattoirs.

Livestock transporters – washing trucks at home depot

All livestock transporters that we interviewed had their own private truck washdown facilities at their home depot. These generally consisted of a concrete slab draining into settling ponds, with the grey water irrigated onto the paddock. Having good water pressure (e.g. 100 psi) at the home depot was noted as being important. Solid waste was either removed by an excavator and used as garden mulch or pumped out professionally and disposed of at a refuse site.

Transporters commented that it was expensive to set up a private washdown facility at the home depot but that they would be lost without it.

It was suggested that most livestock carters would have some sort of wash facility at home.

A State government stakeholder considered that *"…ideally every transporter should have their own washdown – should have the ability to wash your own equipment"*.

Notwithstanding having a wash facility at the home depot, it was noted that it was lot easier to wash out a truck when the effluent was fresh rather than leaving it for doing at home later. This is especially the case in summer when the effluent would dry to the trailer, *"…in summer if you drive home with a dirty truck you've got problems the next day"*.

One transporter noted that before installing the wash and concrete slab, they used to just hose out the truck in the paddock, but they thought that you wouldn't be allowed to do that now.

A local government representative considered that washing down at home was OK as long as it was always done in the one spot where you could can keep an eye on it and monitor for weeds. However, they saw it as a problem if was happening everywhere and uncontrolled, *"…what worries me is people going out into random bits of bush or on the side of a river somewhere. Biosecurity issues with this would depend on where the run-off is going – is it going into a drain, or into a paddock or stream?"*.

Farmers – washing trucks at home

It was noted during the review that a lot of farmers cart their own stock in preference to getting a contract livestock carter. The general understanding is that these farmers wash their trucks and dispose of effluent at home on their own property.

An industry stakeholder commented that they *"…don't see an issue with this as the cow [manure] at home is the same as cow [manure] from the truck - unless you've carted something for someone else on the way home. On dairies they can wash into their dairy effluent sump and then it's irrigated onto their paddocks - it's the same effluent they'd get from their stockyard or dairy"*.

The Chief Veterinary Officer, DPIPWE commented that they were unaware how much washing and effluent disposal happens directly on farms, adding *"The main issues with this (if not running onto a hard pan) would be effluent getting onto pasture: get worm eggs; get faecal-oral transmission of disease spread; get weeds on to that pasture. Not an issue if there is no livestock grazing on it and taking appropriate weed control, but suspect that doesn't happen"*.

The operational viability of washdown facilities

All operators of the three publicly-available livestock truck washdown facilities stated that their facilities are not currently operationally viable, with income not meeting expenditure. This was described earlier in this report under the section 'Overview of publicly-accessible livestock truck washdown facilities in Tasmania'. User fees to the industry would need to increase significantly to cover current costs.

All operators either had considered, were considering, or were going to consider, closing their washdown facility as they were not economically viable.

Major operating costs are: TasWater charges for water and trade waste disposal; increasing environmental regulation and compliance cost; removal of solids from the sump pit; repairs to pumps and pipes damaged by non-livestock transporters; and replacement of stolen or vandalised equipment.

One truck washdown owner noted that *"... the private sector has not identified the provision of such facilities as an opportunity for investment".* In contrast, an industry stakeholder noted that *"…the Northern Midlands Business Association have seen an opportunity to make money out of running a truckwash facility at Powranna"*.

A Business Case for the Powranna truck washdown facility provided by DPIPWE to the review team, estimated operating expenses of approximately $41,700 per annum (comprising $22,200 for overheads and $19,500 for variable costs) for the proposed Powranna facility. In the Business Case, it is assumed that the operating expenses will be recovered and a profit generated from users based on 1,234 hrs usage per year, a cost per minute of between $0.60 and $1.00 and a flagfall of between $2.00 and $6.00. These charge out rates reflect the range of Avdata charge rates - listed as part of the National Truckwash System[17].

What works well, what doesn't work well - and why

Truck washdown infrastructure and operations

From a user perspective, truck washdown facilities work well they:

- have good water pressure (at least 200 litres per minute), to wash out the truck properly enough to make a difference to biosecurity and in a reasonable amount of time
- are on a concrete slab with a 15-20 degree slope, for drainage and user safety
- have an easy payment system (e.g. Avdata systems – electronic card and just get sent a monthly account), because this is convenient for drivers and transport operators
- have good, safe access and egress off or near main transport routes, for convenience, and driver and motorist safety
- are accessible at a reasonable cost, for economic benefits
- are accessible at any time of the day or night, for convenience and efficiency

[17] National Truckwash System – charge rates - http://www.avdata.com.au/pdfs/truckwashChargeRates.pdf - - date sourced 14 July 2016

- are maintained so that they work when you get there to use them (e.g. the hose isn't missing).

From a user perspective, when truck washdown facilities don't work well they:

- have poor water pressure, because it doesn't do the job properly and it takes too long (i.e. all hours are allocated against the drivers' 12 hours maximum day)
- have a difficult and inefficient payment systems (e.g. coin operated system at Killafaddy), which is inconvenient for drivers and transport operators
- are costly to use
- don't provide all the required infrastructure (e.g. you have to bring your own hose), because it's inconvenient and inefficient
- can't be accessed (e.g. if access is curtailed by the operator).

From an operators' perspective, when truck washdown facilities work well they:

- have good effluent pit management and pumping and filtration systems that are fit for purpose
- are restricted to livestock carriers, to minimise maintenance of the system
- have good security and monitoring, so equipment is not vandalised or stolen resulting in increased costs
- have a rapport with drivers (e.g. selling the keys directly to the drivers), as you get to understand their needs and they respect the facilities
- can at least be a break-even operation, so you are not losing money running them.

From an operators' perspective, truck wash down facilities don't work well they:

- are used by non-livestock transporters, as the system fails through misuse, resulting in increased costs
- have equipment vandalised or stolen, resulting in increased costs
- have ownership and operation transferred from local government to other entities, because the new owners don't want to own the facility and it gets in the way of their core business
- have water and trade waste costs transferred to TasWater, as local government owners can no longer absorb these costs and the costs then increase significantly to all users.

Truck washdown location

What works well with the location of truck washdown facilities is that they are:

- at the end of the transport line (particularly near abattoirs and saleyards), because drivers can responsibly dispose of effluent and wash out the truck after unloading and can then get a return load of stock in a clean truck
- located near saleyards, because drivers are likely to use the time available to wash their truck in between when they have dropped off a load and are waiting for another load
- in a central location where there is most traffic flow (e.g. maybe where roads meet), because they are efficient and easy for the transporter to access between farm-to-farm deliveries (e.g. for dairy agistment)

- located strategically with regard to other truck washdown facilities (e.g. Cooee Point is equidistant between Smithton and Killafaddy or Powranna), to allow efficient disposal of effluent and truck cleaning.

What doesn't work well with the location of truck washdown facilities is that:

- there are an overall lack of public truck wash facilities across Tasmania, impacting on the ability to address some biosecurity and hygiene risks and public amenity issues, creating inefficiencies in the livestock transport industry, and negatively impacting on the message of a Clean and Green Tasmania
- they are too geographically spread to allow the timely effluent disposal during transit, impacting on the ability of industry to address their legal and social obligations
- the infrastructure that they were originally built to service (e.g. abattoirs and saleyards) is closed or has less frequent usage, impacting of the operational viability of the facility and usefulness to livestock transporters
- surrounding land use changes over time (e.g. from rural to peri-urban), causing conflict with community and environmental expectations.

Other items of relevance

There were two key issues that were discussed by many of the stakeholders during consultation that are considered relevant to the overview of livestock truck washdown facilities in this strategic review. These were:

- the transport of livestock in and out of Tasmania by shipping; and
- the provision of effluent dump sites, as part of an integrated network of livestock truck washes that reduces biosecurity and hygiene risk.

Tasmanian livestock shipping

SeaRoad Shipping services include the transportation on its two roll-on, roll-off (RoRo) vessels, *Searoad Tamar* and *Searoad Mersey*. The vessels sail between Melbourne and Devonport six days per week and the *Searoad Mersey* calls at King Island once a week[18].

Toll Shipping vessels operate between dedicated terminals at Melbourne's Webb Dock and McGaw Wharf in Burnie. There are no truck wash facilities at McGaw Wharf, nor is there a requirement for washing trucks when they come off the ship (Dean Donavon, pers. comm.). However, the Cooee Point, Burnie truck wash is in close proximity (about 4 km to the west of the wharf).

Furneaux Freight Pty Ltd states that it "*operates a shipping service to Lady Barron, Cape Barren and the Furneaux Group of Islands with an on demand service to King Island and Port Welshpool, Victoria. A weekly service between Bridport, Tasmania and Lady Barron, Flinders Island is provided for general*

[18] SeaRoad Shipping – About Us http://www.searoadholdings.com.au/srwebsite/about - date sourced 14 July 2016

cargo and an on demand service for livestock and all other cargo. Along with general cargo, the vessels are also set up to transport large or small amounts of livestock"[19].

Similarly, Page Transport states that it *"uses a livestock transit facility on both sides of Bass Strait to reduce livestock stress and keep transport time to as little as 16 hours from start to finish. Our head office and holding yards are based at Carrick in Tasmania, near Launceston. Our Victorian Depot is at Tullamarine, and holding yards at Bulla. Our facilities include stock yards with state of the art loading ramps, sheltered areas, paddocks for longer term spelling, as well as hay stores for supplementary feeding, and wash down facilities for cleaning our stock crates"*[20].

Two stakeholders thought that some recent transport of livestock had occurred between King Island and Stanley, but both were uncertain that this had actually happened. It is our understanding that this occasional transport to Stanley has occurred.

Specific requirements for shipping of livestock are defined in *Marine Orders Part 43* and the *Animal Welfare Standard – Transport of Livestock across Bass Strait.*

With regarding to the transport of livestock in and out of the State, the Chief Veterinary Officer noted that our endemic livestock diseases are present on both sides of Bass Strait, but because we are moving across a State boundary that happens to be an island there is an increased emphasis that we need to get biosecurity right coming into and out of Tasmania. In the opinion of the CVO, the same weeds aren't on both sides of Bass Strait and are probably a bigger risk here than animal disease.

The importance of biosecurity with regard to weeds was emphasised by the State government representative from the Invasive Species Branch, who noted that *"…island systems, such as King Island, are really important with movement both ways. Internal quarantine provisions are important"*.

The main entry point for stock into the Tasmania was understood by most people to be Devonport.

One livestock transporter considered that the biosecurity arrangements between livestock trucks and the general public entering the State from the Spirit of Tasmania were inconsistent. They thought that there was less emphasis on livestock transport than the general public and that this was not good enough. They commented that livestock transporters shouldn't *"…be allowed to come into the state and just drive off willy-nilly"*.

An industry representative commented that *"…that there is communication material about biosecurity on Spirit of Tasmania - but think provision of wash down facilities and enforcement is not up to what it should be".*

Another industry stakeholder commented that they were *"…not sure how they manage contamination of stock coming on and off Flinders and King Islands given the amount of* [animal manure] *that you see when they are coming off there."*

[19] Furneaux Freight Pty Ltd - http://furneauxfreight.com.au/ - date sourced 14 July 2016
[20] Page Transport - http://pagetransport.com.au/ - date sourced 14 July 2016

Livestock effluent dump sites

In addition the feedback provided by stakeholder regarding truck washdown infrastructure, nearly every stakeholder consulted was of the opinion that the provision of effluent dump sites was an essential component of an integrated network of livestock truck washes that reduces biosecurity and hygiene risk.

A common theme was that truck drivers can't physically get between truck washes without the effluent tank being full. As such, spillage of effluent onto the road occurs with the resulting biosecurity and public amenity issues. It was also suggested by some stakeholders that some roadside dumping of effluent may occur because of the lack of any designated effluent dump sites. Even with an integrated network of livestock truck washes in place throughout the State, it was suggested that effluent spillage would continue as an issue – as most stakeholders assumed any new truck washes would be, at best, between 100 -200 km apart.

Many stakeholders who discussed the provision of effluent dump sites were aware of these facilities being provided for industry in New Zealand.

While the use of effluent tanks is widespread within the professional livestock transport industry, it was considered that there is nowhere (other than the current truck washdown facilities) to dump the effluent responsibly.

Livestock transporters noted that effluent tanks of a capacity of between 500 and 1000 litres could be full within 10 to 50 km of a journey. One transport owner considered that from an industry perspective it was embarrassing that there was nowhere to empty effluent tanks.

Some comments regarding effluent dump sites are as follows:

"Knows trucks have effluent tanks but don't know how they dispose of effluent. They are endeavouring to contain effluent in tanks but need to have ability to empty tanks. If not responsibly disposed of then it's not a good outcome".

"… they need somewhere to dump effluent responsibly".

"Effluent dump spots are too far apart – effluent tanks on trucks overfill before we can dump. Every municipality should have an effluent dump site at appropriate sites like in NZ. NZ effluent dumps are run by council and there is a community benefit. Being able to empty effluent tanks is critical. There is nowhere that is just a dedicated dump site".

"In the future the NZ model of multiple dump points may need to be looked at (this would be step in the right direction) – similar to a grey water dump site but for the livestock carters, these could be pumped to the main sewer if only effluent and then into the central WWTP. Where they can ' RV grey water dumps' go directly into the sewer – saves pumping from a holding tank".

"In NZ, there are dump sites that cater for disposal of overflowing effluent tanks – this ticks off the road safety side".

"In NZ, slip road off the highway, drive over the grate and away you go. Provides a community benefit".

"In NZ there are dumps with a grid. Just pull up over them and let your cap go – some may have had a hose. You wouldn't be able to have a hose on them here – they'd disappear in a day!".

"With regard to effluent dump points, it's hard to know what the right spots are. If something came of that, you'd probably have to come to a meeting with all of the transporters to vote on where the right spots were. You could say Wynyard, Devonport, Bell Bay corner; Conara; St Leonards; Scottsdale; Huonville. Definitely issues with Southern outlet coming into Hobart – it comes out the front of the trailer coming down the outlet. You're less than 50 km from Huonville - coming into the main city – and then you've still got 450 km to go to get to Smithton".

"…do you consider separate places for just effluent pits - demand for effluent pits where you can just dump and maybe rinse down. This is what transporters talk about when they are going from farm to farm – need somewhere to wash down or dump. Consider these dump sites in between main truck wash locations. These might be at the saleyards – like at Oatlands. Need to consider how they could be linked to some other infrastructure – not just as a standalone".

"Need to consider issue of waste water tanks overflowing. Coming down the sidling in Scottsdale, sharp left hand corner going uphill and effluent routinely spills onto the street- or going up the southern outlets in Hobart and Launceston".

The provision of separate effluent dump sites was discussed in the Meat & Livestock Australia review of effluent spillage[21]. The MLA review noted:

"*Significant capital costs are associated with the design and construction of effluent disposal sites to dump effluent from these tanks. Effluent could be dumped at some existing truck washdown facilities if they are appropriately designed. The capital cost of these facilities is highly variable and is dependent on water availability, proximity to major roads and towns, labour costs, site-specific design parameters including legislative requirements for effluent disposal, and construction materials used for the disposal site. These sites may be constructed and operated by local councils or larger private operations such as abattoirs, livestock transport companies or saleyards. A 'user-pays' system is usually installed to compensate for capital and operating costs.*

Thull (1999) also investigated the likely capital cost of the installation of an effluent discharge facility. The price ranged between $31,000 and $86,000 (NZ), depending on whether existing infrastructure was available (e.g. weighbridge, location within speed reduced zone, truck stop, saleyard, signage required). These costs did not include land purchase, administrative and planning fees and goods and services tax (GST).

Work from New Zealand suggests that the [annual] *cost of constructing and operating an effluent dump site (assuming a 25 year life) is in the order of $6,700 and $11,600 (NZ) in 1999 dollars".*

[21] Meat & Livestock Australia. Review of effluent spillage and animal welfare during livestock transport: a discussion paper - http://www.livecorp.com.au/LC/files/02/02da2caa-8174-4105-a252-803e803c6af5.pdf - date sourced 15 July 2016

Priorities and Recommendations – what we were told and what we think

Priorities for improvement in publicly-accessible washdown infrastructure suitable for livestock and rural trucks

Unmet industry demand

Industry was unanimous that there is an overall need for improving publicly-accessible livestock truck washdown infrastructure in Tasmania.

There is unmet demand for washdown facilities near all major abattoirs and saleyards where washdown facilities are not currently available. These sites are, clockwise from King Island:

- Grassy saleyards, King Island;
- Devonport abattoir / Quoiba saleyards
- Whitemark saleyards, Flinders Island;
- Longford abattoir / Cressy abattoir / Powranna saleyards;
- Oatlands saleyards;
- Bothwell saleyards;
- Tunbridge saleyards; and
- Ranelagh saleyards.

"The main saleyards in Tasmania in order of frequency of use are:

- *Quoiba (5 sales per fortnight);*
- *Powranna (weekly);*
- *Killafaddy (weekly);*
- *Smithton; Oatlands; and Bothwell (6 sales per year each); and*
- *King Island; Flinders Island; Tunbridge; and Ranelagh (1 sale per year each)*".

There is also unmet demand for washdown facilities within regions where there is significant farm-to-farm livestock transport. These regions are the:

- North-west region (but not Smithton or Burnie, where demand is currently being met);
- North-east region (e.g. Scottsdale, but not Launceston where demand is currently met);
- Southern Midlands (e.g. Oatlands); and
- Southern region (e.g. Ranelagh).

The biggest areas of unmet demand for washdown facilities, clockwise from Devonport / Quoiba, were considered to be at:

- Devonport / Quoiba
- Powranna / Longford / Cressy

- North-east region (e.g. Scottsdale); and
- Southern region (e.g. Ranelagh).

Some selected quotes from stakeholders that reflect this unmet demand are as follows.

"Wherever you are making deliveries to – that's the main part. Once you get there, you get rid of your stock and you want to clean out and get another load and continue on. Most deliveries are saleyards or abattoirs. Except for dairy jobs. There is a lot of movement: 100s of cows per week – moving within properties".

"They need to be at abattoirs and saleyards – for the main end user - where they drop off the livestock most of the time. Needs to be close to these facilities so you can be clean for the next job".

"Unmet demand around key processing areas. Geographically needs are at Smithton (Greenham's), Devonport (Quoiba)".

"Biggest unmet demand is in the area around Powranna and Longford – it's a hot spot". "Spoke to everyone about who would use Powranna and pretty much everyone will use."

"Lot of farm to farm work around Scottsdale and them fellas have got nowhere to wash".

"Also there is a lot of stock movement around the south, should have a wash down there".

"Areas of biggest unmet demand are anywhere you've got livestock. In Midlands we have wool and increasing dairy; in NW fat lambs and diary (lot of fertiliser used in pasture so opportunity for weeds to become established), same in NE as NW; in Huon can tend to be a bit forgotten but there is cattle grazing. There is livestock pretty much across all agricultural regions of Tasmania".

Deficiencies in terms of geography and biosecurity and hygiene risk

Industry was unanimous that there are deficiencies in publicly-accessible livestock truck washdown infrastructure in Tasmania.

With regard to biosecurity and hygiene risks, the main geographic locations that were considered to be currently deficient of truck washdown infrastructure were:

- Devonport / Quoiba
- the Longford / Cressy / Powranna area;
- the North-east region (e.g. Scottsdale);
- the Southern region (e.g. Ranelagh); and
- Island systems (e.g. King Island; Bruny Island)

With regard to geographic spread, the main geographic locations that were considered to be currently deficient of truck washdown infrastructure were:

- Devonport / Quoiba;
- the Longford / Cressy / Powranna area;
- the North-east region (e.g. Scottsdale); and
- the Southern region (e.g. Ranelagh).

A couple of stakeholders also noted that there were no truck washdown facilities on the east coast. However, neither knew enough about livestock movements in that region to comment on whether this should be considered as a deficiency.

Some selected quotes from stakeholders that reflect deficiencies in terms of geography and biosecurity and hygiene risk are as follows.

"Geographically needs are at Smithton (Greenhams), Devonport (Quoiba) and Huon area is bit more of a unique challenge".

"Powranna make sense geographically – but it needs to be useable for everyone to wash out and dump effluent. Not just those using Powranna saleyards, but also those travelling through. Getting Powranna truckwash up and running key priority. It's got to be accessible. If you are passing through you can dump that load off and keep going through".

"Biggest deficiencies in terms of geography and risk are that our big livestock collection points are not covered. They need to be covered. Then that leaves a deficiency in the south of the State".

"*The main issue is the lack of facilities. Suggests that there should be 5 main sites. Far NW (Smithton); Devonport area; down South - Brighton; somewhere between Scottsdale and Bridport; and Powranna. This would be a good geographic spread, no matter where you were based."*

"Going back and forward to Bruny Island. Livestock trucks go back and forth on ferry and nowhere to pull over to washdown. Bruny like any island we look at as an opportunity to treat weeds differently to mainland Tas. Prevent new incursions going onto island. If there were facilities – we see this as a possibility to be multi-use. Bruny Island Biosecurity Strategic Plan last year was driven by livestock issues".

"For future needs to be delivered over time we need a centralised facility and facilities at the end of the transport line. Definitely need more around the state. You are never going to have enough. Main one in a central location but you are always going to have farm-to-farm movement. Need to have a few spread across the state. There is nothing on the east coast, but not much comes from that way".

Models for financing of capital improvements, ownership and operation

Capital improvements

Given the overall state-wide approach to managing biosecurity and hygiene, the Tasmanian government was generally considered to be the most appropriate organisation to ***coordinate the establishment*** of an integrated and economically viable network of publicly-accessible livestock truck washes that reduces biosecurity and hygiene risks. This review, and the policy framework regarding livestock truck washes in Tasmania anticipated as an outcome from this review, are evidence of this approach by the Tasmanian government.

"…there is a Statewide burden of responsibility. It would be good to see a State coordinated approach rather than individual councils doing it".

The organisations that could be responsible for ***funding of capital improvements*** for the establishment and/or upgrade of publicly-accessible livestock truck washes were suggested to be:

- the Australian government;
- the Tasmanian government;
- the Australian and Tasmanian governments;
- the Tasmanian and local governments;
- abattoir and saleyard owners;
- the Livestock Transporters (in part); and/or
- private companies.

None of owners of the three current publicly-accessible livestock truckwash facilities considered that they would, or should, be funding new capital improvements.

Some quotes from stakeholders that reflect these opinions are as follows.

"New infrastructure should ideally be federally or State government funded".

"Considers that State government should fund new infrastructure because of widespread effect of weeds".

"Everybody is affected by issue so all should fund new infrastructure (councils, government, truck drivers, the whole lot)".

"Considers new infrastructure should be funded in conjunction with local government and the State (state-wide Biosecurity role)".

"Infrastructure could be built with some public finding (they help everyone and will assist the public – everyone benefits from improved biosecurity). It's assisting ag and transport industry more than anyone – maybe 50:50 contribution. There should be some money coming from industry".

"JBS and Feedlots clearly saw a need for washes and put them in".

"…could make it a mandatory requirement that all abattoirs and saleyards have truck washes (State government could have that input to make it mandatory)".

"If a whole new site it could be built by private funds. Think this has been done on some mainland ones. Could you tack a truck wash onto an existing business?".

"…new infrastructure should not be funded by council (Council has the view that it will definitely not be funding it)".

"It is not TasWater's ambit to fund new truck wash infrastructure".

Ownership, management and operation

The organisations that could be responsible for ***ownership and management*** of publicly-accessible livestock truck washes were suggested to be:

- TasWater;
- local government;

- abattoir and saleyard owners; and/or
- private companies.

Some quotes from stakeholders that reflect these opinions are as follows.

"It's probably not State government responsibility to run them …but who will be responsible for running these truck washes? Councils will run a mile. TasWater will run a mile. TFGA will run a mile. Livestock Transporters don't have the infrastructure to be responsible for running it".

"*If it was an organised and structured system then it could make sense for TasWater to run them. Or TasWater could advise on the design specifications and water availability and effluent disposal requirements of this state system. Maybe have on a council site – but you need someone to run it".*

"Should be run by councils (like the mainland) – but they need to make it profitable if privately run".

"Council would be interested in running or operating a new one but not in constructing it".

Funding options for ongoing ***operations and maintenance*** of publicly-accessible livestock truck washes were suggested to be:

- a full user-pays system;
- a partial user-pays system;
- a fully subsidised system; and/or
- abattoir and saleyard owners.

Where facilities are either a full or partial user-pays system, it was suggested that this revenue would be best collected either through a billing service (e.g. Avdata system) or an industry levy (auto-debit system).

Some selected quotes from stakeholders that reflect these opinions are as follows.

"Funding for maintenance depends on who is going to own it. Could be part of cost of having a saleyard".

"Ongoing maintenance as a user pays system – transporters need to meet operational costs. Income from the user needs to meet these costs".

"Ongoing maintenance through user pays system through Avdata".

"For ongoing management, if a private facility they need to be profitable".

"If true user pays system based on water costs and TasWater Trade waste – you just couldn't afford it. Perhaps a levy for maintenance from truck driver fees".

"… maintained by levy system – is probably the fairest way to go. Maintenance could be funded by an industry levy (auto-debit) – if you get widespread uptake then unit costs drop. Where they are run by a company then there could be an automatic debit".

"Ongoing funding for maintenance in partnership with local councils".

"If public facility, then it's more about service and there should be some user pays cost recovery".

"Charges would lead to a negative perception".

"Main issues that need considering in this review are input costs. Any operator doesn't want additional costs so if they are charged there will be some level of resistance".

Multi-purpose washdown facilities

As stated in the introduction of this report, the review is focused primarily on livestock truck washdown facilities. Any benefits accruing through dual purposes (e.g. washdown facilities for large machinery, other commercial vehicles, etc) are subsidiary to the main focus - the livestock truck biosecurity and hygiene perspective.

Notwithstanding this, some stakeholders noted that there may be significant biosecurity and economic benefits to be derived for multi-purpose washdown facilities that address broader objectives of the Tasmanian Biosecurity Strategy, particularly cleandown/washdown for all agricultural and industrial vehicles.

A State government stakeholder considered that *"…the scope of this review should be broader that just livestock trucks. If we are going to construct new facilities, would argue that need to have facilities available for a broader range of vehicles and machinery".*

However, several current truck wash managers noted that there could be management and treatment issues with high diverse and high volume waste from a multi-use facility stating, "*If not limited to livestock trucks and livestock effluent then couldn't link to sewage – can't have other trucks with grease and gravel going down the sewage. If other trucks used it would need to have a settling tank first and then that would need to be cleaned out every couple of weeks to get solids out of it"* and *"...if you are getting big volumes of effluent then you need a substantial set-up to handle it all".*

A multi-purpose washdown facility near Devonport that could be used by both motorists coming off the Spirit of Tasmania and livestock transporters was suggested variously as: an effective way to reinforce the importance of biosecurity to people entering the State; a community service that may be appreciated by the travelling public that promotes our Clean and Green image; and a way to offset costs if a fee was charged.

Considerations to delivering priorities over time

Stakeholders we consulted provided a broad range of opinions regarding delivering priorities for livestock truck washdown infrastructure over time. These have been collated as follows.

The next 5-10 years

In the next 5 to 10 years, it was considered that there will still be a need for improved biosecurity for known and unknown diseases and that washing out trucks would remain a part of addressing that need.

It was noted that Tasmania is currently destocked at the moment and that there could be restocking from the mainland with "*…higher numbers of trucks coming in"* and that there would be *"…an increased risk of biosecurity with re-stocking from mainland – weeds coming across Bass Strait".*

It was suggested that there could also be a lot more movement of livestock right across the State with increased agistment occurring, particularly within the dairy industry. An industry representative emphasised that there is an *"…increasing demand for the red meat industry and demand for protein is very strong – don't think anything is going to change that".* In contrast, another industry representative suggested that stock numbers and transport could decrease with a shift away from grazing to cropping.

Livestock agents noted that there might be an increase in paddock sales but that they didn't see the need for saleyards changing.

Transport representatives noted that: industry is trying to make trucks better; that we may see a change in truck sizes and design; and more livestock trucks on the road.

It was generally accepted biosecurity and hygiene requirements would increase in both government regulations and within industry standards and self-regulation.

There was an expectation expressed that farming communities will become far more focused on biosecurity and overall pathways of disease. As landowners/farmers become more aware of the biosecurity risk to them from livestock transport they may become stricter and even litigious towards transporters *"…landowners may seek compensation from introduction of weeds to their property – especially if DPIPWE is serving notices on them for weed infestations".*

One stakeholder stated the hope for a stronger influence on producers to manage their stock in cooperation with transport companies, *"…as this would save quite a bit of the problem if most effluent and waste can be left on property before they leave on the truck".*

Several stakeholders considered that there will be an increase in:

- social awareness of industry best practice and biosecurity standards *"…the requirements certainly aren't going to get easier";*
- the influence of Quality Assurance programs; and
- the fostering of good industry reputation.

With these increased needs to meet community and public expectations, having facilities that maintain clean and safe transport infrastructure and stop effluent on the roads will be needed, "…*there will be an increased call for truck wash facilities".* This would also be reflected through *"…industry demand from abattoirs for clean stock to manage meat contamination will increase".*

There were a number of comments regarding new and emerging weed and disease threats coming into the State, *"…we could have an exotic disease outbreak in northern Australia - it's not a matter of if, but when"*, *"…there are a lot of declared weeds on mainland- what are we willing to invest in keeping it* (our biosecurity status)", and "…*climate change may change the way weeds infiltrate and germinate".*

With regard to building new truck washdown infrastructure, one industry stakeholder considered that *"…we need to build the infrastructure to meet a rigorous standard now, and take into account wastewater issues, so we can future-proof the model* (of an integrated network of facilities)*"*.

With regard to current truckwash infrastructure, each owner and operator of the three current publicly-accesible facilities considered that their facility faced an uncertain future over the next 5-10 years

- Smithton. *"TasWater may face EPA issues if there is a constant issue with effluent overflow from truckwash. Could have issues with safety. Could be issues with driver compliance".*
- Cooee Point, Burnie. "*In the next 5-10 years, a truck wash in Burnie would definitely need to be in a different location – either Burnie council or private land. We have thoughts on what we'd like to do with that site and that would be within the next 10 years".*
- Killafaddy, Launceston. *"In the future (next 5-10 years), don't know what will happen with Killafaddy. Regulations will change in the future and this will determine what the needs are".*

The next 20 years and beyond

A local government representative stated that in 20 years they hoped *"…to see that there are more than three or four truck washes around the State; that it is an integrated State level system".*

It was suggested that *"…in the future we may stop people washing out livestock trucks on private property for biosecurity reasons".*

An industry representative considered that we are likely to see more stock with an increase in both dairy and beef and fattening lambs.

It was suggested that we may get serious weed infestations or a new disease and that these things are more likely to happen as we are a more global nation, *"…there will just be more movement of goods overall and movement will be easier"* and *"…we will see increased speed of product moving through the supply chain".*

It was also suggested that with the desire of governments to reduce red tape and move to a more self-regulating model, the biosecurity risk may increase, *"…and if that breaks down and something new gets in it will be hard to get rid of".* One comment was that *"we should plan for the worst case scenario. Britain wasn't prepared for foot and mouth".*

An industry representative summarised the future considerations as *"…in next 20 years, our markets will be more Asia focused. May be more processor co-ops. A lot depends on what the processors do. People talk highly of the Greenham's model. Tasmania will increasingly build on its niche market. A lot will depend on what the consumer wants, where they want their product from and how it is branded".*

In addressing long term biosecurity needs, a State government representative concluded with this comment regarding suggested approaches to future needs over time

"… greater awareness - everyone should be doing this together and across all sectors of industry; we should have clear priorities as to the most important issues. Where are the most important areas to invest and put effort? We need to be smart about how we do this – if we work to high level we will capture low level stuff as well or reduce the risk. We need to have a good basis for what we do through risk assessment work that has already been done. Approaches are most effective if across all industry – a truck driver moving stock one day might be moving dirt the next. It needs to be a broad message – but also fit for purpose. Changing people's behaviour's the most important."

Recommendations for improvement in publicly-accessible wash-down facilities – and why

Areas of greatest need for improvement which would contribute significantly to the rigour of Tasmania's biosecurity arrangements

Based on stakeholder feedback, our assessment of unmet industry demand and assessment of deficiencies in terms of geography and biosecurity and hygiene risk (see Figure 7), we consider the following areas for improvement in publicly-accessible, livestock truck washdown infrastructure would contribute significantly to the rigour of Tasmania's biosecurity arrangements.

- Smithton – investment to insure surety of the Smithton truck wash as an ongoing concern
- Devonport / Quoiba area – new truck washdown facility
- Powranna / Longford / Cressy area - new truck washdown facility
- North-east region (e.g. Scottsdale) - new truck washdown facility;
- Southern region (e.g. Ranelagh) new truck washdown facility; and
- an integrated network of effluent dump sites, as part of an integrated network of livestock truck washdown facilities.

Smithton – investment to insure surety of the Smithton truck washdown as an ongoing concern

The current Smithton truck washdown facility is strategically placed, as it is at the end of the transport line in north-west Tasmania for many livestock trucks delivering to the Greenham Tasmania Pty Ltd abattoir or the Roberts saleyards which are on the same site as the truck washdown. The Smithton truck wash was considered to be in high demand because of the Greenham abattoir and the dairy industry in the area, and both industries were considered to be looking to increase production over time.

Investment to insure surety of the Smithton truck washdown as an ongoing concern is needed because the current owner and operator has indicated that they would prefer not to own and run the truck washdown. The Smithton truck washdown should be maintained in order to meet current and future demand and continue to address biosecurity and hygiene needs in this geographic area, as part of an integrated network of livestock truck washdown facilities.

Devonport / Quoiba area – new truck washdown facility

There are three key sites within the Devonport / Quoiba area of relevance to the livestock industry. These are the:

- Devonport abattoir (JBS Australia)
- Quoiba saleyards
- Port of Devonport.

There is no publically-accessible livestock truck washdown facility in this area.

A new truck washdown facility should be constructed in the Devonport / Quoiba area to meet current and future demand and to address biosecurity and hygiene needs in this geographic area, as part of an integrated network of livestock truck washdown facilities.

Figure 7. Current and proposed livestock truck washdown facilities and relevant infrastructure in Tasmania, as at September 2016

Powranna / Longford / Cressy area - new truck washdown facility

There are four key sites within the Powranna / Longford / Cressy area of relevance to the livestock industry. These are the:

- Longford abattoir (JBS Australia)
- Cressy abattoir (TQM)
- Powranna saleyards
- Powranna feedlot (Tasmanian Feedlots)

There are two private truck washdown facilities in this area, at the Longford abattoir and at the Powanna feedlot.

There is no publically-accessible livestock truck washdown facility in this area.

A new truck washdown facility should be constructed in the Powranna / Longford / Cressy area to meet current and future demand and to address biosecurity and hygiene needs in this geographic area, as part of an integrated network of livestock truck washdown facilities.

North-east region (e.g. Scottsdale) - new truck washdown facility

There is a significant amount of livestock transported from farm-to-farm in the north-east region of Tasmania. Livestock production in the region in anticipated to increase over time. Livestock is transported to and from Flinders Island at Bridport.

There is no publically-accessible livestock truck washdown facility in this area.

A new truck washdown facility should be constructed in the north-east region (e.g. Scottsdale) to meet current and future demand and to address biosecurity and hygiene needs in this geographic area, as part of an integrated network of livestock truck washdown facilities.

Southern region (e.g. Ranelagh) - new truck washdown facility

There is a significant amount of livestock transported from farm-to-farm in the southern region of Tasmania and there is a saleyard at Ranelagh. Livestock production in the region in anticipated to increase over time.

There is no publically-accessible livestock truck washdown facility in this area.

A new truck washdown facility should be constructed in the southern region (e.g. Ranelagh) to meet current and future demand and to address biosecurity and hygiene needs in this geographic area, as part of an integrated network of livestock truck washdown facilities.

An integrated network of effluent dump sites, as part of an integrated network of livestock truck washdown facilities

Livestock transporters can currently dump effluent at:

- the three publically-accessible livestock truck washdown facilities (i.e. Smithton; Cooee Point, Burnie; and Killafaddy saleyards, Launceston);
- the private truck wash at Tasmanian Feedlots, Powranna (if they are permitted); and
- their own depot.

There are no sites in Tasmania dedicated solely to dumping livestock effluent from effluent tanks on trucks

A common opinion throughout the consultation was that, even with the development of an integrated network of livestock truck washdown facilities, the provision of additional effluent dump sites (such as those provided in New Zealand) was required to contribute to better biosecurity and hygiene arrangements.

Consideration should be given to development of an integrated network of livestock effluent dump sites.

Our recommendations and why we recommend these improvements

Recommendation 1: Establishment of an integrated and economically viable network of at least five publicly-accessible, livestock truck washdown facilities, comprising:

- Smithton – investment to insure surety of the current Smithton truck washdown facility as an ongoing concern
- Devonport / Quoiba area – new truck washdown facility
- Powranna / Longford / Cressy area - new truckwash down facility
- North-east region (e.g. Scottsdale) - new truck washdown facility; and
- Southern region (e.g. Ranelagh) new truck washdown facility.

➢ This will provide minimum effective state-wide coverage concentrating on key areas of livestock unloading and transport.

Recommendation 2: The Tasmanian government maintains responsibility for coordination of an integrated and economically viable network of publicly-accessible livestock truck washdown facilities that reduces biosecurity and hygiene risks.

➢ This state-wide issue needs central and public oversight and coordination that can only be provided by government.

Recommendation 3: The Tasmanian government and industry work together to determine the capital and operating expenditure required to establish and run an integrated and economically viable network of publicly-accessible livestock truck washes.

➢ The most effective and sustainable capital and operating structure is likely to be a private-public partnership.

Appendices

Appendix 1.
Stakeholders we consulted with regard to the truck washdown strategic review

Name	Role	Organisation	Date consulted	Consultation format
Dr Rob Andrewartha	Chief Veterinary Officer	DPIPWE	5 September 2016	Face-to face
Michael Askey-Doran	Principal Weeds Management Officer	DPIPWE	5 August 2016	Face-to face
Alan Barr	General Manager – Tasmanian Operations	Roberts Limited	23 August 2016	Face-to face
Terry Brient	Executive Officer	Tasmanian Agricultural Productivity Group	25 August 2016	Face-to face
Dr Jess Coad	Regional Officer, Tasmania	Livestock Biosecurity Network & (Tasmanian Cattle Health taskforce)	3 August 2016	Face-to face
Dean Donavon		Toll Holdings	14 July 2016	Telephone
Spencer Griggs	President	Livestock Transport Association of Tasmania (& Spenser Griggs Transport)	9 August 2016	Face-to face
Michael Grubb	Owner	Brighton Truck and Car Spa	21 July 2016	Telephone
Greg Harris	Agent	Elders	25 August 2016	Face-to face
Nick Hingston	Vice-President	Livestock Transport Association of Tasmania & (Hingston Transport)	19 August 2016	Face-to face
Geoff Hyland & (Patrick Greene)	North West Manager & (Local Coordinator)	TasWater	24 August 2016	Face-to face
Des Jennings & (Monique Case) & (Chris Wicks)	General Manager & (NRM Officer) & (Environmental Health Officer)	Northern Midlands Council	19 August 2016	Face-to face
Garry Lethborg	Owner and operator	Killafaddy saleyard	25 August 2016	Face-to face
Rene Raichert	NRM Project Officer	Kingborough Council	29 August 2016	Telephone
David Read		Sea Road Holdings	21 July 2016	Telephone
Nick Steel	Rural Affairs Manager	Tasmanian Farmers and Graziers Association (TFGA)	19 August 2016	Face-to face
Patrick Troughton	Property Services Officer	Burnie City Council	24 August 2016	Face-to face
Jacci Viney	Development Services Coordinator	Flinders Council	12 August 2016	Telephone
Matt (surname unknown)		TT-Line	14 July 2016	Telephone
Rob Bayles		Bayles Brothers	14 Sept 2016	Telephone

Lloyd Klumpp		Biosecurity Tasmania	14 Sept 2016	Telephone
Andrew Thompson		Tasmanian Feedlots	14 Sept 2016	Telephone
Rachel Brown		Dairy Tasmania		Telephone
Rupert Gregg		TFGA Representative on DPIPWE Animal Welfare Committee	14 Sept 2016	Telephone
Andrew Lester	Chair	TFGA, Dairy Council	14 Sept 2016	Telephone
Chris Gunn	Chair	TFGA, Meat Council	14 Sept 2016	Telephone
David Gatenby	Past President	TFGA	14 Sept 2016	Telephone
David Barnett	Senior Manager	Roberts Limited		Telephone
Graeme Pretty	Livestock Controller	H W Greenham and Sons	20 Sept 2016	Telephone
Peter Campbell	President	Agricultural Contractors Association	20 Sept 2016	Telephone
Andrew Bond		Eastfield Pty Ltd	21 Sept 2016	Telephone

Appendix 2.
Semi-structured interview questions for stakeholders with regard to the truck washdown strategic review

A: About the stakeholder

1. Can you please tell me a bit about your interest in livestock truck washdown facilities?
2. What is your experience with truck washdown facilities?

B: Main issues of relevance

1. In your opinion, what are the main issues that need to be considered in this review of livestock truck washdown facilities? Why?
2. Do you think that there is a need for improving livestock truck washdown facilities in Tasmania?
3. Can you tell me what you think would be the benefits for improving livestock truck washdown facilities in Tasmania?
   What would be the benefits to industry? What would be the public benefits?
4. Can you please elaborate more about the biosecurity and hygiene benefits of improved truck washes? (Only ask if needs more detail)

C: Truck washes in Tasmania

1. What can you tell me about the current public truck washes for livestock trucks in Tasmania? Where are they? Who owns them? Are there any issues with these public facilities?
2. What about private truck washes?
   Where are they? Who owns them? Who can use them? Can all livestock trucks use them?
3. Can you share your experience of current industry practices with truck washes and effluent disposal?
   How much happens directly on farms? What are the main issues with this?
4. With regard to existing facilities, what works well? Why?
   What hasn't worked well? Why?

D: Industry obligations

1. What do you see as the main obligations of the livestock industry regarding washing trucks and disposing of effluent?
   Legal obligations? Voluntary obligations?

2. Who else do you think has obligations here – especially regarding biosecurity and hygiene?
   What about transport in and out of the State?

3. Are these obligations the same all around Australia?

4. What can you tell me about overseas requirements for truck washing and effluent management?

E. Greatest need for publicly-accessible washdown infrastructure

1. What do you consider are the areas of greatest need for publicly-accessible livestock truck washdown infrastructure in Tasmania at the moment?

2. Where do you think is the biggest area of unmet demand?
   Why? (Ask about deficiencies in terms of geography and risk if not provided)

3. In your opinion, how should new truckwash infrastructure be funded?
   What about ways to pay for ongoing management and maintenance?

F. Delivering priorities over time

1. In your opinion, what factors will change over the next 5 to 10 years that might influence the needs for truck wash infrastructure?
   For example what about changes to: i) truck design; ii) curfewing of stock; iii) other infrastructure; iv) legal requirements; v) biosecurity needs, etc?

2. What about any changes in the next 20 years?

3. Given what you've just told me, what approaches would you suggest for how these future needs might be delivered over time?

G: Other stakeholders

1) As part of this review we would like to talk to other people who can provide relevant input. Can you suggest anyone else we should talk to? (and their contact details?)

Appendix 3.
Summary of stakeholder consultation

Name	Organisation	Detailed summary of consultation
Jess Coad	Livestock Biosecurity Network & Tasmanian Cattle Health taskforce	• Tasmanian Cattle Health taskforce truck washes have come up for discussion on a number of • Main issues are: placement of washes (need one near Quoiba) and especially trucks coming from the mainland • Need truckwash at new saleyards at Powranna – especially for trucks coming from and going back to the Huon area. Should be cleaned before heading back south – especially if they have another load. • And needed for road safety from effluent deposits. • Benefits would be to prevent spread of unknown diseases on a dirty truck - in manure mainly. Prevent spread of Johne's disease in manure and footrot. • Industry would have better reputation. • Certainly need a wash at Quoiba – proximity to saleyards and port of Devonport. And one down south. Need them at cattle holding areas too – we have areas where cattle congregate where part loads are held until there is full load to go up north. Maybe at Bridgwater where cattle are held. And Greenhams have holding areas away from the abattoir around the regions. • There may be washes on some transporters own depots. When they get home they wash the trucks out. Biosecurity issues with this would depend on where the run off is going – drain, or into a paddock or stream? Would need to monitor for weeds. • Washes work well when they are at the end of the transport line abattoirs/saleyards. • In NZ, there are dump sites that cater for disposal of overflowing effluent tanks • Greatest needs for truck washdown are at greatest saleyard at Powranna – trucks coming from all directions. Devonport/Quoiba and then end of the line at Smithton. Having Smithton wash functioning is important. • The biggest unmet demand is at Devonport/Quoiba. Quoiba is the biggest risk where you've got livestock coming in from the mainland. • In the next 5-10 years (and the next 20 years), the amount of livestock in Tasmania may influence the needs for truck wash infrastructure. Livestock numbers in Tasmanian could either increase of decrease. Could be restocking from mainland stock – higher numbers of trucks coming in.
Mike Askey-Doran	DPIPWE - Invasive Species Branch	• Main interest in livestock truck washdown facilities is regarding the spread of weeds propagules, vegetative material and disease. • DPIPWE have developed resources in terms of small, mobile washdown facilities on a trailers that they make available to stakeholders on request (also use these to keep own vehicles clean). • The scope of this review should be broader that just livestock trucks. If we are going to construct new facilities, would argue that need to have facilities available for a broader range of vehicles and machinery. The more local areas to washdown the better. • The term "Washdown" creates a bit of a misnomer as it infers washing is the only way to get rid of contaminants. We push for the notion of "Cleandown". • There is a need for improving washdown/ cleandown facilities full stop. Consider it is dangerous just to think about livestock. • The benefits of improving washdown facilities are that it should reduce the spread of weed and disease • There is a legal obligation for owners of trucks and machinery under the Weed Management Act to not spread weeds

		• Devonport is main entry site. Not sure how much comes through Burnie. • Island systems such as King Island are really important with movement both ways, Internal quarantine provisions are important • In the next 5-10 years, all jurisdictions will look stricter regulation to improve hygiene. Industry will become more responsible and self-regulate to greater standards. Landowners/farmers will become more aware of risk to them may become stricter. • Mike noted that the State is going through a review all the parts of Biosecurity legislation. Commonwealth has also reviewed its Biosecurity legislation. The more State governments push awareness the more truck owners will change the way they operate. • In the next 20 years, changes may occur if we get serious infestations. These things are more likely to happen as we are a more global nation and world. There will just be more movement of goods overall and movement will be easier. Desire of governments to reduce red tape may increase risk. We are tending to a more self-regulating model and if that breaks down and something new gets in it will be hard to get rid of. • Approaches most effective if across all industry – a truck driver moving stock one day might be moving dirt the next. It needs to be a broad message – but also fit for purpose. Changing people's behaviours the most important.
Spenser Griggs	Livestock Transport Association of the Tasmania	• Truck drivers are verbally abused by motorists and public for effluent spills – can't retain drivers because of abuse in workplace. Need to be able to wash out truck before another load. Abattoir will reject them if dirty – will turn you a way and send you home. • Washdown facilities need to be there for hygiene and weed & disease control • Effluent dump spots are too far apart – effluent tanks on trucks overfill before we can dump. Every municipality should have an effluent dump site at appropriate sites like in NZ. • Main problem is moving lots of dairy cows (coming straight off the paddock, straight on the truck) from farm to the dairy and there is nowhere to rinse out the truck. • Most livestock carters would have a wash facility at home • Key things in a public truckwash are having plenty of water pressure. Need to be able to wash truck out quickly as time is critical (all hours are allocated against driver's day – can only work for 12 hours out of 24 hours). Worker safety important. Need slope on ground at wash • There are issues with transport of livestock into Tasmania. Inconsistent biosecurity arrangements between livestock trucks and general public – less emphasis on livestock transport than general public. This is not good enough. Inconsistency in biosecurity arrangements. • Powranna make sense geographically – but it needs to be useable for everyone to wash out and dump effluent. Not just those using Powranna saleyards, but also those travelling through. Getting Powranna truckwash up and running key priority. It's got to be for 24/7 days
Jacci Viney	Flinders Council	• Livestock is loaded and unloaded from yards at Lady Barron Port – sheep and cattle both ways • Yards are owned by TasPorts. There is a washdown at the yards but apparently the tanks fill quickly • Weekly boat to and from Bridport. • Also a vessel that can carry stock about every 3 months from Port Welshpool, Victoria • There are 3 trucks on the island that cart livestock • Drafting biosecurity plan for the island

Des Jennings; Chris Wicks; Monique Case	Northern Midlands Council	• Council has supported application for Powranna and through Business Association will become the owner of Powranna wash • The truckwash will clean the truck at destination – but we need to go back down the chain a little bit to the operator and collection on the farm. There is a broader issue of holding stock before transport so they can pass out most of their waste. • We are talking in this review about strategic locations so need to consider what it is you are trying to protect and what are you protecting it from (are the key strategic issue identified?) Need to determine where hotspots are. • There is need for improving public washes in terms of public access. We are only aware of was at Smithton. • Benefits to industry would be in better effluent management effecting water quality; reduce mobility of pathogens, every truck wash would provide and interruption to the flow of pathogens (mitigate zoonosis risk). • Biosecurity benefits are reducing spread of seeds and weeds – reducing the seed load. • Industry obligations under the Litter Act (this is often overlooked) and EMPCA – everyone is bound by this, not just the livestock industry. Effluent coming out of a cattle truck is litter under the Litter Act • Voluntary obligations: as a livestock transporter cleanliness is good, having pride in your equipment; good for business reputation and there is an increasing awareness and expectation from the public. Industry QA Program (supermarkets or own industry) may expect this and drive this. • Areas of greatest need are areas where dairy cattle are moved by vehicle from location to location – not too hard to identify, NW & NE dairy regions. And with irrigation schemes coming on line in Midlands this changing the face of ag to a significant extent • Consider biggest area of unmet demand is Devonport • Des said new infrastructure should not be funded by council • Factors to change over the next 5-10 years include a stronger influence on producers to manage their stock in cooperation with transport companies (this would save quite a bit of the problem if most effluent and waste can be left on property before they leave on the truck); increased requirement for best practice – the influence of QA programs; selling and maintaining best practice; fostering good reputation – tourism; new and emerging weed threats coming into the State. There are a lot of declared weeds on mainland- what are we willing to invest in keeping it
Nick Hingston	Hingston Transport + Transporters Association	• Nick is a 3rd generation livestock carter. Family business since 1948 • Concern is that only one publically available wash in the State at Smithton • Has had own wash at depot since 1994. Has concrete slab and 2 settling ponds – grey water gets irrigated out onto the paddocks. • Trouble is we've got a split sale and it all should be at Powranna. • He has a lifetime of experience with truckwash facilities • The main issue is the lack of facilities. Suggests that there should be 5 main sites. Far NW (Smithton); Devonport area; down South - Brighton; somewhere between Scottsdale and Bridport; and Powranna. This would be a good geographic spread, no matter where you were based. • Lot of farm to farm work around Scottsdale • Benefits to industry would increasing cost effectiness. Could do a return load. Can drive 100 odd Km to wash truck and then back to put another load on. Everyone is in the same boat. It's the inconvenience of it. • Public benefit would be stopping effluent going over cars

		• Public washes: Smithton is good facility; Killafaddy is not good; Cooee Point you may as well use a garden hose • Private facilities: TasFeedlots have one you can use if you are delivering • Has effluent tanks (1000 ltr). But they would be full in 50 Km. • Embarrassing thing is you can't empty your effluent tanks which we have on all trailers • Current industry practices: Only about 50% of farmers would curfew before transport (you've got no idea what people have done before you pick up a load), you can notice who has and who hasn't. Reckons about 50% of effluent would get dumped in the paddock • What works well with current facilities is the AVData systems – electronic card and just get sent a monthly account. • Nick spoke to everyone about who would use Powranna and pretty much everyone will use. • In next 5-10 years, you still gonna need to wash out. Need dump sites at the same 5 sites and these will always be used. • In the next 20 years, likely to see more stock (only need a back-up season to this winter). • With regard to effluent dump points, it's hard to know what the right spots are. If something came of that you'd probably have to come to a meeting with all of the transporters to vote on where the right spots were (You could say Wynyard, Devonport, Bell Bay corner; Conara; St Leonards; Scottsdale; Huonville. Definitely issues with Southern outlet coming into Hobart – it comes out the front of the trailer coming down the outlet (and you are less than 50 km from Huonville coming into the main city – and then you've still got 450 km to go to get to Smithton
Nick Steel	TFGA	• TFGA Meat, Wool and Dairy Councils are all saying the same thing – all saying we need far more and need better truck washes facilities • TFGA provided a budget submission to government seeking a strategic review (this review) and consolation with other stakeholders • We are part of Powranna truck wash steering committee – be good to see that up and going through the Northern Midlands business association • It's about biosecurity. With transfer of diseases or new disease outbreak it's about having points where you can washdown or keep livestock at a particular time • Main issues we need to consider in this review are: biosecurity; geographic locations; infrastructure and effluent pit management; good consultation (what we are doing now – making sure all the right stakeholders have been spoken to make sure we get the best possible truck washes across the State) • There is a need for improving livestock truckwash facilities • Benefits to industry would be in cleaning up mishandling of effluent, it's assisting truck drivers and farmers; improved biosecurity; it's an image thing as well; and future exotic disease protection • Public benefits are in less likelihood of effluent on the road. It tells the public that industry take this seriously • Powranna is main strategic location and it is in an agricultural area. Do we still need Quioba and Killafaddy as part of strategic locations for saleyards? • The Greenham-Smithton wash is easy to use, easy system and it is part of the trip to abattoir. It is high use are as well with dairy and beef

		• Main issue with moving stock in and out of the State is with correct curfewing (curfewing of stock obligations with Bass Strait code – need to give stock enough time to empty out). • Greatest need for publically accessible truckwashes is to have more overall. Should be more multipurpose – not just truck wash but to have that effluent pit/dump there as well • Locations are important. Biggest unmet demand is: Scottsdale; then somewhere in between (is it Launceston or Devonport?) if it's Quioba then it needs to be upgraded; Powranna; somewhere down South. . • Then do you consider separate places for just effluent pits - demand for effluent pits where you can just dump and maybe rinse down. This is what transporters talk about when they are going from farm to farm – need somewhere to wash down or dump. Consider these dump sites in between main truck wash locations. These might be at the saleyards • Need to consider how they could be linked to some other infrastructure – not just as a standalone. • I don't think transporters should be paying for new build. Infrastructure could be built with some public finding (they help everyone and will assist the public – everyone benefits from improved biosecurity). It's assisting ag and transport industry more than anyone – maybe 50:50 contribution. • Factors that may change over the next 5-10 years are that we could have an exotic disease outbreak in northern Australia (it's not a matter of if, but when). There will be an increased need to meet community and public expectations – having facilities that maintain clean and safe transport infrastructure (stopping effluent on the roads). People becoming more aware of spread of disease in faeces (OJD & BJD – TQM have put out information about how we can manage the disease together). Considers meat processing will stay the same in this time. We will see a build-up in livestock numbers (we are currently at an all-time low). Perhaps see an increase in joint cropping and livestock farming, especially with irrigation • In next 20 years, our markets will be more Asia focused. May be more processor co-ops. A lot depends on what the processors do. People talk highly of the Greenham's model. Tasmania will increasingly build on its niche market. If we had a really good rail line between Hobart and Launceston things might be different – but I can't see that happening. Truck design may change. We will see increased speed of product moving through the supply chain. A lot will depend on what the consumer wants, where they want their product from and how it is branded.
Alan Barr	Roberts Ltd	• Truckwashes infrastructure is important to the sustainability of livestock movement and the industry as a whole. • Important for general hygiene (effluent spillage) and for biosecurity (transfer of effluent disease from one property to another). Biosecurity is important to Tasmania as it is a key point of difference for the State. • Main issues that need to be considered is whether there is an identified need. The rationale for truckwashes is for improved biosecurity and that we shouldn't contaminate the environment – both on farm and generally speaking. Need to consider strategic placement of truck wash facilities on major transport routes. • A need for one in this area (Powranna) but doesn't need to be attached to Powranna saleyards necessarily • Knows trucks have effluent tanks but don't know how they dispose of effluent – may be at own depot. They are endeavouring to contain effluent in tanks but need to have ability to empty tanks. If not responsibly disposed of then it's not a good outcome. • An efficient freight company wants to be back loading after delivering a load of stock

		• The outcome trying to drive is a better biosecurity outcome for the State to continue and grow agriculture then let's do that. Let's get whatever the number of truckwashes we need happening. • Greatest need is having a truckwash in a central location in this northern area. Biggest unmet demand is in the area around Powranna and Longford – it's a hot spot. It's got to be open 24 hours and 7 days a week. • In the next 5-10 and over 20 years, sees a huge future for agriculture in Tasmania. At a personal level and at a Roberts level we are wanting to really drive productivity and efficiency in ag industry. Governments vision of a tenfold increase in production by 2050. Increasing demand for the red meat industry and for protein is very strong – don't think anything is going to change that. We may see a change in truck sizes and numbers associated with greater transport of stock. We are under capacity at the moment – between 30-50% of stock produced in state leave the state to be killed. • Roberts have 9 saleyards: Apart from Elders next store at Powranna (and leasing Killafaddy) no-one else owns saleyards. Powranna (main weekly sales – over 30,000 head of cattle a year); Quoiba (5 sales per fortnight – also around 30,000); Oatlands (sheep sales); Bothwell; & Smithton (6 times per year); Ranelagh (they lease this); Flinders Island; King Island; Tunbridge (once a year).
Patrick Troughton	Burnie City Council	• Main issues that need to be considered by this review are accessibility of the truckwashes and having suitable wash facilities in strategically placed locations. • Our wash is very basic at the moment. However, if we try to change this site the EPA have said that it would require a much higher level of regulation. It is complying at the moment and is currently regulated by council. If we upgrade Cooee Point it would need a roof to minimise spray drift (this may have been the issue at Quoiba) • Cooee Point is equidistant between Smithton and Killafaddy/Powranna • We need to have truckwashes in sensible locations – these locations are currently sensible • Greatest need is to have easily accessible washes. To be able to wash to and from delivery sites. A need not to be carting around 200-400 litres of effluent around to places without disposing it. • Considers the current truck washes are located ideally situated and work well (truckdrivers may have a different thought on this) – but the infrastructure is old and there is a risk of failure without doing a significant maintenance of upgrades • Also the life of Cooee Point truckwash is limited at its present location. The site will be used for other activities (ideal site for a hotel or residential area). • In the next 5-10 years, a truckwash in Burnie would definitely need to be in a different location – either Burnie council or private land. We have thoughts on what we'd like to do with that site and that would be within the next 10 years • In the future the NZ model of multiple dump points may need to be looked at (this would be step in the right direction) – similar to a grey water dump site but for the livestock carters, these could be pumped to the main sewer if only effluent and then into the central WWTP. Where they can ' RV grey water dumps' go directly into the sewer – saves pumping from a holding tank. • However, think that Burnie is still strategically placed between Smithton and Devonport and Launceston regarding truck wash infrastructure. Carriers would still be looking for something in this vicinity – whether it be Burnie or Ulverstone. Think there will also be a need for it
Geoff Hyland & Patrick Greene	TasWater - Smithton	• TasWater own and operate the Smithton truckwash. They have no interest in livestock truckwashes. Their interest is only by default as they have inherited the site through Circular Head Council. It is sited on Roberts land and it is next to the Roberts saleyards. • They have openly tried to shut the site down.

		• They have 2 plans for the site. Plan 1 – shift the risk to someone else. Plan 2 – upgrade the site with fencing, cameras and monitoring the load. • Constantly abused (gravel trucks; grain trucks) and overflows. Overflows into water course. There is good filtration to the pump but not for non-effluent. • Cost $1000 per week to pump out the solids (pumped out twice a week). Everytime it overflows its $5000 for an emergency to fix. • With regard to current facilities, nothing works well. Smithton truckwash is built with smaller pumping equipment that doesn't work. • It's costing us $100 - $150K per year to run (maybe even $300K). We haven't changed the charge rate since taking over the system • Other solids that are not effluent going into the system certainly don't work well. Get gravel, grain, weed in the system. Some dirvers use sawdust or the like for bedding in the trucks and this clogs the pipe work. • Things that may change in next 5-10 years are that Greenhams will increase production. TasWater may face EPA issues if there is a constant issue with effluent overflow from truckwash. • Concluding comments. There are ways to control the issues at Smithton, but TasWater don't want it. It's huge cost to us and a huge risk that we don't want.
Greg Harris (Elders) & Garry Lethborg (Killafaddy saleyards)	Elders & Killafaddy saleyards	• Animals need to be clean and good presentation. Don't' want them coming on dirty trucks. Issues are with meat hygiene with dirty sheep • Killafaddy saleyards and truckwash. It's not used that much. Based on money in wash, estimates 10 trucks per week use it • More than anything, the main issue that needs to be considered is the location of the truckwashes. They need to be at abattoirs and saleyards – for the main end user (where they drop of the livestock most of the time). Needs to be close to these facilities so you can be clean for the next job. • Noted that farmers of stock need to take some responsibility for stock preparation – but that MSA don't want stock (cattle) locked up (curfewed) before transport (get a better grade of meat), need to be killed within 24 hrs from farm. Better grading cattle are the ones locked up for less time. • Public benefits of improved truck washes would be for councils and on roads. Benefits for road use and tourism. • Facilities that work well are those in central location where there is most traffic flow –maybe where all the roads meet. Needs to be accessible to all • With transport out of the State everything going out needs to be on a clean truck (Page must have their own wash as they never wash at Killafaddy). Trailers should be spotless coming back into the State. This time of year a lot of empty trailers coming in – but can be stocked going both ways • Biggest unmet demand is in the central north (Westbury?). Now have a concentration of livestock in Powranna area (Feedlot and Roberts saleyards/Elders saleyard) – from Devonport, Powranna and Launceston. • Demand in points of delivery in Devonport (Quoiba) and Smithton. • There is lots of that dairy agistment stuff in the NE and NW – stock being moved farm-to-farms. Little movement going into the south from up here though.

		• If not limited to livestock trucks and livestock effluent then couldn't link to sewage – can't have other trucks with grease and gravel going down the sewage. If other trucks used it would need to have a settling tank first and then that would need to be cleaned out every couple of weeks to get solids out of it • In the future (next 5-10 years), don't know what will happen with Killafaddy. Regulations will change in the future and this will determine what the needs are. Industry demand from abattoirs for clean stock to manage meat contamination will increase
Terry Brient	Tasmanian Agricultural Productivity Group	• Main issues that need considering in this review are input costs. Any operator doesn't want additional costs so if they are charged there will be some level of resistance. Charges would lead to a negative perception. • Industry benefits from truckwashes would arise though added capacity to – as an island – say that we are as clean as can be has got to helpful to Brand Tasmania and its 'clean & green' foundations • For public benefits suggests that we need something when coming off the Spirit for use by travelling public. Public may appreciate an underbody wash when coming off Spirit in a controlled environment • Considers that self-regulation is better than mandated regulation at meeting obligations – but also noted that the minimum accepted standard needs to be met and that it may be higher in Tasmania (and perfectly justified) • Operation and paying of washes needs to be as simple as possible, so that people will use it effectively. • Changes that might influence needs for truckwash infrastructure may be: increased awareness of best practice; increased biosecurity standards (the requirements are not going to get easier). If we need to build the infrastructure to meet a rigorous standard now and take into account wastewater issues we can future proof the model • In delivering needs over time need to consider: upfront new equipment set up costs; ongoing maintenance costs (whatever program is designed it needs to have those two elements built into it – there must be figures on that sort of thing); and needs and costs for effluent disposal. • Terry also noted that a lot of other vehicles will want to use these facilities (just look at demand for car washes – they must be economically viable and making money. They see it as a very viable financial option – not trucks but cars). There are a lot more cars, caravans and mobile homes on the road than trucks. Any integration of facility with public and tourism demand could turn it into a strong offset. • We need to consider what the opportunities are for integrating wash facilities with other sectors or issues where wash facilities are relevant.
Rene Raichert	NRM Project Officer, Kingborough Council	• Biosecurity big part in weed management – transport of weeds on livestock trucks and soil contaminants such as Phytophthora and Chytrids • Going back and forward to Bruny Island. Livestock trucks go back and forth on ferry and nowhere to pull over to washdown. Bruny like any island we look at as an opportunity to treat weeds differently to mainland Tas. Prevent new incursions going onto island. If there were facilities – we see this as a possibility to be multi-use. Bruny Island Biosecurity Strategic Plan last year was driven by livestock issues. • Wash facilities is a hot topic with local councils, and including State Growth. . Jill Jones, State Growth is driving this, particularly from a weed hygiene facilities. All State wash infrastructure shouldn't be done as a solo effort – team effort on biosecurity. • Everyone has responsibility regarding biosecurity and hygiene - from State government to end users. But if there is no clean down point then a truck driver can't do a wash down. There should be designated area.

		• The greatest need from publically accessible infrastructure is that it has to be easily useable and it has to work effectively • Considers that State government should fund new infrastructure because of widespread effect of weeds – there is a Statewide burden of responsibility. • It would be good to see a State coordinated approach rather than individual councils doing it • Ongoing funding for maintenance in partnership with local councils. Could see local council monitoring sites. • Over the next 5-10 years, sees increase in social awareness. Also stakeholders will be improving meeting their responsibilities over time
Rod Andrewartha	DPIPWE, CVO	• Understanding is that people working with livestock need to clean equipment between sites. You would expect a vet to disinfect their equipment between one property and the next. While trucks are bit more difficult to clean, similarly, a reasonable expectation for a producer that a livestock truck would have a clean appearance. • It is possible for disease to be transmitted in the back of a truck but probably low risk. A bigger risk is the disposal of effluent onto pasture (eg. spread of Johne's) and faecal/urine-oral spread. Stock aren't feeding in the truck. • It's a possibility that something like footrot could be transferred on a truck but doesn't consider a truck is any greater biosecurity risk than any saleyard they have been through. All stock handling areas have the some risks • Main issue really comes down to control of effluent – stopping the faecal -oral spread of disease. Main issue is where the effluent goes. You don't want it running across your neighbours paddock if you wash out your livestock truck. • For exotic diseases such as Foot and Mouth then it would become an issue. If that happened, first step is a complete livestock standstill. But when we get past livestock standstill and we want to move stock again, we are going to need to clean trucks. • In an emergency situation we are likely to say that animals can go to slaughter and then you have to clean the truck. • The main issues we need to consider are the normal patterns of livestock movement. When do we want trucks to wash down? Ideally every transporter should have their own washdown – should have ability to wash your own equipment. • They need to be in public places where trucks are likely to arrive dirty – that is, at abattoirs and saleyards (it's not rocket science!) • It really all comes down to the level of dirtiness in a truck. If there is not much material in the bottom of the truck the disease risk is fairly low. • As long as the truck is not grossly contaminated, the key issue is controlled effluent disposal. Need to think where the effluent is going. • With regarding who else has obligations in biosecurity and hygiene, farmers have an obligation to prepare stock correctly (curfew, is pretty important) and not accept a dirty truck picking up stock. But, it is difficult for a farmer to turn back a dirty truck and it is just as difficult for a carrier to refuse a load of livestock if not appropriately presented. Obligation on those who might say, it's OK to wash your truck out here, to think about where the effluent is going • Regarding transport in and out of the State, our endemic diseases are present on both sides of Bass Strait. Weeds aren't and are probably bigger risk here than disease. But because moving across State boundary that happens to be an island there is an increased emphasis that we need to get it right. • The greatest need for publically accessible truck wash infrastructure is to have them near abattoirs and saleyards. • Biggest deficiencies in terms of geography and risk are that our big livestock collection points are not covered. They need to be covered. Then that leaves a deficiency in the south of the State.

		• Truckwash just needs to be a concrete apron that either drains into the sewer or can be collected and contained (settlement ponds) away from livestock. Effluent and solids need to be disposed of appropriately – collected, contained and dealt with away from livestock. But even with a settlement pond it is going to fill up quick and then what do you do with it because you can't spread it on pasture unless it's been treated (Johne's will survive 12 months). If not going in to sewer are going to have whole chain for handling the waste. • Over the next 5-10 years the needs will be those needs now – we need to improve biosecurity for known and unknown diseases. • Emergencies disease risk we can deal with at the time • Hoping that in the next 5-10 years, community attitude will change, that farming communities will become far more focused on biosecurity and the overall pathways of disease (rather than focus on individual disease). While the actual disease risk won't increase, the farming community perception and the need to address it will increased. There will be an increased call for truckwash facilities • We are working nationally towards looking at pathways for biosecurity
Rob Bayles	Bayles Brothers	• Regional need for facilities has increased over time • Increasing hygiene and biosecurity risk -weed, disease contamination • Curfews must increasingly be observed • Shared responsibility/increasing public good benefit • Importance of agriculture to state means risk could be costly • Major diversified demand in Midlands • Important cattle (beef and dairy)production region and increased intensive agriculture • Northern Midlands - out of public eye - Powranna (in first instance) • User pays (maintenance and operations - capital provided by State/ Federal Governments • Regional scale with broader biosecurity focus in provision of infrastructure
Lloyd Klumpp	Biosecurity Tasmania	• Relevance to Tasmania - Protecting agriculture's clean and green image in Tasmania • Industry benefit - Reducing risk or disease and weed transfer • Public benefit - Whole of Tasmania issue • Public facilities must ultimately provide a strategic and timely capability • Better approach to addressing effluent disposal in immediate term • Livestock carriers can be unfairly targeted but getting it right should be a shared (supply chain) responsibility. • What doesn't work well is a lack of biosecurity focused facilities • No gazetted 'dump' facilities • Increasing concern in and out of State although need to better manage endemic weed and disease issues • Need for strategic washing and 'dump' sites around State in context of overall biosecurity plan • Supports Midlands infrastructure as a priority. • Changing biosecurity needs, public attitudes, approach to curfewing • Focus on meeting 'here and now' needs for livestock but in keeping with broader biosecurity focus - as funds permits

Andrew Thompson	Tasmanian Feedlot Pty Ltd	• Important to protecting State from overall biosecurity (disease, weeds) risk; livestock trucking is integral to agriculture sector (and those who work in it) in Tasmania • Reduced risk of costly endemic and exotic disease and weed transfer. • Ensuring practices are in keeping with accepted practices in relation to - animal welfare as well as noises and smells offensive to the public. • Public washes fall short of broader biosecurity protections in today's environment. • Truck operators should not be expected to carry the risk for the whole industry • Serious lack of 'dump' facilities which can cause major effluent spill problems if curfews have not been observed • Don't know how much happened directly on farm, but increasing resistance to accepting dumping of effluent from other farms due to disease/ weed risks • Work well where the location of facilities enables day and night operation • Transport in and out of the State is an increasing area of risk • Over time - Increased biosecurity risk and pressure from the public; Strategic 'dump' sites • Be prepared for higher community expectation • Broaden the scope of infrastructure capability- cleaning and non-livestock trucks / machinery • Should monitor what is being done in other Australian States
Rachel Brown	Dairy Tasmania	• Concerned about ensuring effluent is managed to acceptable environmental, disease and weed control standards • Maintain clean and green reputation in eyes of community • Little or no transfer of effluent between farms due increased concern of disease or weed transfer • What doesn't work well is insufficient tank effluent capacity and spillage • Opportunity to further educate on biosecurity risks • Opportunity to manage livestock curfew more rigorously • Being a tourism State - the travelling public also has biosecurity obligations • Influences over time may be - steadily Increasing biosecurity risk, curfew rigor and public expectations all support a broad-based approach to infrastructure placement - with increased focus on imports including livestock • Should be long term planning
Rupert Gregg	TFGA Animal Welfare Committee	• Ensuring that livestock reach their destination in the best of health - whether to saleyards, abattoirs and/or other farming properties • Clean healthy livestock that are properly curfewed deliver higher values to the farmer • Public washes fall short of broader biosecurity needs and lacking geographically - especially in relation to 'dump' sites. • Major concern in relation to over-filled truck effluent tanks, largely due to farmers failing to observe curfew - carrier caught in the middle • Issues are becoming less and less due to farmers increased understanding disease and weed contamination risk. • Unmet demand - Washdown facilities were originally planned for the geographically and industrially Powranna saleyards • Greatest need is the Midland

		• Changes over time Public demands, shutting of sites close to metro areas, tougher curfew or animal welfare guidelines and/or an endemic or exotic disease outbreak in TAS • Over time there should be progressive upgrading of washdown and strategic 'dump' infrastructure in keeping with a raised level of biosecurity preparedness
Andrew Lester	Chair TFGA Dairy Council	• Minimising endemic and/or exotic biosecurity risk by ensuring truck wash infrastructure is fit for purpose and geographically accessible • Maintain clean and green image and continue to provide jobs. • In need of upgrade to support better management (reduced transfer risk) of local disease - Johne's, footrot and steadily increasing risk of importing an exotic disease. • Should take the curfew issues more seriously to support quality assurance aims and protect farming social licence. • Greatest need - Believes there is a State wide problem that needs to be addressed in respect of effluent disposal: • Dump sites for over-filled tanks coupled with cost-effective truck hygiene to minimise disease and weed tranfer risk under a medium term biosecurity plan • Collaborative arrangement that reflects significant public good benefits to Tasmania • Over time there will be Increasing public expectations • Steady progression towards greater disease preparedness • Approaches should be to funds allocated to perceived immediate priorities truck wash and dump site priorities
Chris Gunn	Chair – TFGA Meat Council	• Seeking to address a very clear need (priority) in respect of beef and sheep transportation around the State • Current public washdown facilities have limitations - do not meet a geographic need, no dump sites, do not meet a broader (other than livestock) biosecurity need and increasingly close to cities (Launceston) with associated smells and noise. • Private washes meet the needs of their clients • General lack of facilities geographically and no dump sites for over-filled truck effluent tanks • Greater disease and weed contamination awareness has reduced on-farm dumping but lead to more roadside dumping of effluent and potential environmental consequences • A whole of supply chain issues - not just transport operators • Approach must aim to limit indiscriminate effluent dumping • Government in the name of Tasmanian public which would have much to lose in the event of a disease outbreak - agriculture and tourism income • Transport in and out of State needs to be monitored, close to main port of entry and broadly focused - machinery etc • Public expectations are increasing; Animal welfare expectations are increasing; Product quality assurance requirements are increasing
David Gatenby	Past President - TFGA	• Addressing biosecurity preparedness is becoming more urgent in the face of steadily declining availability of truck wash facilities at some locations. • Delivering on increased community expectations and reducing potential risk of income loss to the State . • To meet biosecurity risk, the operational service needs to be broader than livestock

		• Fall short of needs in relation to effluent disposal - especially in relation to over-filled truck tanks. • Shared industry and government obligation supported by greater rigour in curfew policing • Greater coordination of truckwash and dump site provision • Greater vigilance in respect of exotic disease preparedness is needed • Greatest need is Midlands and beyond - heading South. • Changes over time - The level of exotic disease outbreak risk ,increased pressure on environmental protection and animal welfare demands • Truck wash and dump facilities should be part of an overall plan but - there is an immediate need in respect of better managing the disposal of truck effluent
David Barnett	Senior Manager - Roberts	• Need to do all possible to protect clean and green image, livestock hygiene, and ensure animal welfare and curfew guidelines are observed • Reduced disease and weed transfer risk and less environmental contamination • Improved public amenity including smells, noise and operating hours • Public washes fail geographically, often located too close to built-up areas, washing equipment often cannot deliver a timely service, • Current washes and effluent disposal are a significant issues that works against protecting social licence • Curfew must be observed rigorously observed supported by better management of pick-up and delivery. • Government responsibility for The installation and upgrading of facilities should be in keeping with a broader biosecurity plan • Pressure to relocate facilities from residential areas, the need for key dump sites around State, facilities South of Launceston - originally planned for Powranna. Powranna is considered a priority • Disease risk, public pressure including from within industry • Approaches over time should be shared financial commitment to meeting truck wash and dump site priorities
Andrew Bond	Eastfield Pty Ltd	• Own internal requirement is that truck has to be clean – drivers sign off on that • Livestock for slaughter – meat contamination issues • Public amenity issues with effluent on road • 90% of his stock go out of state, 12 hours curfew. Lambs don't have as much problem as cattle • Levy or user pays – always passed on to the producer for maintenance of infrastructure • Contamination of stock issues will get stricter with processors – requirements will increase over time • Occasionally get a drivers turning up annoyed that stock on previous deliver has come straight out of the paddock and they've now got a dirty truck
Peter Campbell	Agricultural Contractors Association	• This had not been raised as an issue within the group to his knowledge • Understands that state and local governments do not have much money; and don't want to get into owning things like these. There is a community benefit, though, and that should bring some funding commitment. • What role should Tas Water play? There is a benefit to the environment too, and they should contribute. • Maybe the best outcome would be some form of co-funding from state and local governments, transporters and processors. In the end though costs will be passed back to the farmer.

		• In NZ, there are many truck washes and dump sites which he thought were owned and maintained by government. Many are multi-use ie caravans, freight carrying trucks and livestock trucks. Trucks are more closed in there so dump sites are more common than truckwashes. • Must be something we can learn from mainland situation and also what the Kiwis do.
Graeme Pretty	Greenham's	• Greenhams process ~700 cattle per day in Victoria and this provides him with a clear understanding that Tasmania is years behind other states • Can't claim to be 'clean and green' when there is [animal manure] everywhere. It is not a good look for tourists; it makes roads unsafe; and it is not good for the agriculture industry either • Every major saleyard in Victoria has a truckwash, usually owned and run by the saleyard owner. Some are owned and operated by local government eg Echuca – so there are precedents • Cattle will always wee in trucks but this is relatively manageable – one of the biggest issues in Tasmania is open trucks in rain which washes effluent out onto roads – not much can be done about that, but if there are dumps and truckwashes it is better able to be managed • Transport companies are doing the best they can but, without adequate washdown sites or dump sites, they can't do much more • Tassie produces the best beef in the world, and the beef industry brings much to the state – there should be reinvestment in such important public infrastructure • At the very least, there is a need for dump sites on major roads to allow trucks to empty effluent tanks. These could be alongside or even shared with caravan/RV dump sites. Councils should run these on a user pays basis like RV ones • Maybe there could be partnerships between government and private sector (truckies, processors) in construction, but someone needs to take operational responsibility. • There needs to be good coverage across the state – Smithton, Burnie, somewhere half way to Longford, Powranna, and somewhere in the south • We can't keep claiming that we're clean and green when this unacceptable situation is allowed to continue • Basic issue is how to fund the required infrastructure – but we have to get over this