

EFFLUENT MANAGEMENT

		Below Standard Practice	Acceptable Practice	Innovative Practice
Yard Wash down		Excessive water used (based on industry averages) to remove effluent from dairy and feedpad facilities with no consideration for water reduction.	Overall water use has been calculated and water use reduction practices implemented where appropriate.	Water recycling options undertaken to reuse plate cooler water and recycle effluent water for yard cleaning. Water quality monitored to avoid high salinity levels affecting ponds or pasture applications.
		Dairy shed and yard poorly designed, not prompting good cow flow. The generation of effluent is not adequately controlled or contained from the facility.	Dairy shed and yard sufficiently designed to accommodate good cow flow. All effluent is contained within the facility and directed to the effluent system.	Dairy shed and yard design to accommodate future expansion and allow good cow flow. Wash down systems upgraded and designed to minimise water use.
Sump/trap System		The sump/trap is poorly designed and regularly overflows	The sump/trap has been designed correctly and has sufficient capacity to retain effluent to allow breakdowns to be rectified promptly.	The sump/trap has sufficient holding capacity to retain effluent to allow breakdowns to be rectified. A spare pump and parts are on hand.
		The sump/trap is not managed or regularly cleaned to prevent failure. Continuous problems with pumps and conveyance pipes.	The sump/trap is managed regularly with the removal of solids and debris. Maintenance and cleaning procedures are in place.	The sump/trap is routinely maintained incorporating a impermeable storage area with bunding for stockpiling solids.
				Sump/traps are reviewed and redesigned with farm changes.
		More information: www.dairyingfortomorrow.com.au		

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Effluent Pond Systems		Pond(s) have been incorrectly designed and located and are inadequate in containing effluent over the wetter months. Potential environmental risk.	Pond(s) have been correctly designed and integrated into the farm layout, taking into account specific farm and region information.	The pond(s) designs are periodically reviewed and adjusted accordingly to accommodate farm changes.
				The pond(s) potential for energy recovery options are explored.
		Pond(s) are poorly located and do not take into account appropriate buffer distances. Potential environmental risk.	Pond(s) have been integrated using a whole farm plan and maintain appropriate buffer distances.	Ponds have been integrated using a whole farm plan, taking into account appropriate buffer distances and maximises nutrient distribution.
		Pond(s) are constructed on permeable sites or with permeable material resulting in seepage.	Pond(s) have been built using impermeable material or appropriately lined with clay or synthetic liners to prevent seepage.	Clay or synthetic liners are checked regularly for damage. Repairs are implemented promptly.
		Pond(s) are not managed, monitored or emptied when required.	Pond(s) are managed and used regularly during the season to utilise nutrients to improve production. Pond(s) are emptied prior to winter.	Ponds are monitored and agitated regularly to remove accumulating nutrients and salts. Ponds regularly retain sufficient storage capacity.
		Pond walls are breached to desludge or desludging is rarely undertaken.	Pond(s) are desludged periodically to gain capacity.	Desludging is carried out routinely by specialist contractors as part of a pond maintenance program.
Feedpads		No effluent system in place, and no control of nutrient runoff.	An appropriately designed effluent system in place, taking into account relevant farm variables.	
		Feedpad is poorly sited and is in close proximity to sensitive areas (waterways, neighbours, property boundary).	Feedpad is integrated into the farm layout to maximise production and minimise off-site impacts (including odour and noise).	
		Feedpad is constructed on permeable soil (sandy) or in an area with a high watertable and no means of protecting groundwater.	The feedpad is constructed on low permeability soil (clay) or appropriate foundations to minimise nutrient infiltration of the groundwater.	The feedpad is concreted and does not allow infiltration of nutrients to the soil.
		Feedpad has inadequate drainage, causing boggy and slippery surfaces.	Feedpad incorporates a drainage system to divert and capture run-off for reuse on farm or an appropriate vegetated buffer.	Feedpad has reinforced concrete aprons to assist in regular maintenance and enhanced drainage.
		No routine for dry scraping manure and wasted feed from the pad. Stockpiled manure located in close proximity to sensitive areas (neighbours or waterways).	Manure and feed is regularly scraped from the pad and stored in a contained area to allow drying and reuse.	The feedpad facility has developed an appropriately located composting area to regularly handle and utilise manure and feed waste.
		More information: Phone Scott McDonald, DPI Echuca, on (03) 5482 0440 and ask for the <i>Victorian Guidelines for Dairy Feedpads and Freestall</i>		

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Stock Traffic areas		Stock regularly cross through streams, through underpasses or along roadways with no consideration for effluent management.	High trafficable areas are regularly monitored for effluent and manure deposits with appropriate strategies in place to contain and reuse.	Temporary or permanent infrastructure is in place to collect, contain and strategically redistribute effluent and manure to improve pasture/crop production.
		Run off from tracks and laneways is not diverted from waterways (including streams, drainage lines channels).	Run off from tracks and laneways is diverted from waterways and distributed onto paddocks.	Run off from tracks and laneways is collected and directed to a holding source for strategic application.
		Tracks and laneways are not maintained.	Tracks and laneways are maintained to promote drainage and are graded to maintain shape and crown.	
Overall Effluent System Management		No system for collecting or distributing. Effluent leaves the property or enters groundwater, surface water or roadsides. Odour or activities associated with effluent management Impacts on communities.	Effluent is retained on the property and managed to eliminate pollution to groundwater and surface water. Odour emissions are monitored and managed accordingly.	Effluent is retained on the property and managed to reuse all forms of effluent strategically as a resource or for production gains.
		The system is not monitored or upgraded following significant changes to the farm. Management is adhoc.	The system has been reviewed annually and modified accordingly to cope with farm changes. The system is managed regularly.	The system has been upgraded to cope with farm changes. Management is based on a routine with specialists used to service various components of the effluent system.
		No maintenance schedule is in place to maintain pumps, ponds or equipment. Breakdowns occur regularly.	The effluent system equipment is serviced on a regular basis as per the manufacturers specifications or by qualified professionals.	Back up equipment is available for emergencies (ie hiring services available).
		Manure stockpiles are allowed to accumulate with no management to reuse or consideration for locality. Potential for effluent runoff from property likely.	Manure stockpiles are analysed using typical book values to determine application rates prior to reuse on pasture/crops. Manure stockpiles are stored in an appropriate location away from sensitive areas with appropriate bunding to contain runoff.	Manure stockpiles are sampled and reviewed using actual nutrient analyses to determine application rates prior to reuse on pasture/crops. Manure stockpiles are stored appropriately with bunding and strategically applied to pasture/crops.
		The farm has no awareness of OH&S practices associated with the management of effluent.	The farm is aware of and implements appropriate OH&S requirements with all aspects of effluent management.	Appropriate OH&S requirements are implemented on farm and staff are trained accordingly with all standard operating procedures associated with effluent management.

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Application systems		No effluent application system. Effluent directed to a designated sacrifice paddock.	Effluent application system in place, enabling effluent to be distributed over suitable farm area to utilise the nutrient and water value, to achieve a production gain.	Multiple effluent application system in place with the potential to extend the area of application utilising nutrients to improve production.
		Effluent irrigation sprinklers are rarely moved or rotated, limiting the area over which effluent is applied.	Effluent irrigation sprinklers are regularly moved to suit herd and pasture rotations. Appropriate buffer distances from sensitive areas such as neighbouring residences and waterways are maintained.	Effluent irrigation sprinklers are used to strategically time and adjust application rates with soil, pasture and crop requirements following regular sampling and testing .
		Effluent application equipment is not maintained or serviced to prevent breakdowns.	Effluent application equipment is regularly maintained and serviced with replacement parts available. Equipment is correctly calibrated.	Effluent application equipment including sludge and solid manure handling equipment are routinely maintained and serviced with bio-security plans in place for off farm use.
			A whole farm nutrient management plan is developed to enable effluent and manure applications to be incorporated with fertiliser applications.	