

Horse keeping near waterways and wetlands

- Restrict horse access to any waterways and wetlands by use of appropriate fencing.
- Prevent horses from accessing waterways to drink. Instead pump water into stock troughs.
- Locate paddocks away from water-logged areas. During winter, deny any horse access to paddocks which are even partially flooded with water.
- Ride horses only on designated bridle trails or recreation sites. By managing bridle trails effectively, their impacts on waterways is reduced. Please see our WQPN no. 82: *Bridle trails near sensitive water resources*.



Grooming area with impervious flooring
(Photographs courtesy of Polytechnic West)

Other water quality guides:

For online information, please go to www.water.gov.au select *Publications > Find a publication > Series browse > water quality protection note*.

The locations of many sensitive water resources are shown online at www.water.wa.gov.au click *Tools and data > Maps and atlases*, then view our interactive *Geographic data atlas*. Select and expand layers on the left, then use the menu bar to scale and navigate.

Online information about sensitive water resources and protection measures is also available at:
www.dec.wa.gov.au, www.epa.wa.gov.au
www.agric.wa.gov.au, www.swanrivertrust.wa.gov.au

For online information on land use and more see www.walis.wa.gov.au select *WA Atlas*.

For further information, contact the
Department of Water, Water Source Protection Branch

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This publication is available at our website or for those with special needs it can be made available in alternative formats such as audio, large print, or Braille.

We welcome your thoughts and suggestions on our publications. We aim to regularly update them and make them as useful as practical, to help protect WA's precious water resources.



Managing horses in semi rural environments



Picture taken in horse riding arena

Horse management checklist	Check
Ensure you have received all the relevant approvals from your LGA for the keeping of horses and for the construction of any related structures.	
Calculate the correct stocking rate for your property as per the DAFWA publication, <i>Stocking rates guidelines for rural small holdings, Swan Coastal Plain and Darling Scarp</i> .	
Ensure your horse holding facilities and related structures are designed and constructed as required by the LGA and the Department of Water (see WQPG no.13: <i>Guidelines for horse facilities and activities</i>).	
Implement management techniques to prevent paddock degradation, as specified by DAFWA.	
Ensure horse access to drains, waterways and wetlands is controlled and complies with the LGAs, the Department of Waters, the Department of Environment and Conservations approvals and recommendations.	
Manage horse manure as described in the Department of Water's WQPG no. 13: <i>Environmental guidelines for horse facilities and activities</i> .	

This brochure is designed to inform you of water quality protection issues related to the keeping and use of horses. It briefly summarises best environmental practice. Issues include waste management, nutrient leaching and soil erosion leading to turbidity in waterways.

Approvals

Before purchasing a horse, check that horse keeping is allowed in your area, and if your local government authority (LGA) will give you the appropriate development approvals for keeping horses and if relevant, for the construction of horse stables and exercise areas on your property.

Calculate the correct stocking rate (horses per hectare) for your property. Stocking rates are recommended by the Department of Agriculture and Food (DAFWA), see *Stocking rate guidelines for small holdings for the Swan Coastal Plain and Darling Scarp and surrounds, WA, 2000* online at <www.agric.wa.gov.au>.

Public drinking water source areas

Horses can pose water quality risks to surface water and groundwater. By-laws apply in public drinking water source areas (PDWSA) for horse keeping and riding.

To find out if your property is in a PDWSA, see the Department of Water, water quality protection note (WQPN) no. 108: *Public drinking water source areas of Western Australia*, view our *Geographic Data Atlas* online at <www.water.wa.gov.au> or contact us.

Horse facilities

Ensure that stables, compounds and facilities associated with keeping horses (such as exercise



Stable with impervious flooring
(Photographs courtesy of Polytechnic West)

areas, feed stockpiles, manure, compost, wood waste and horse carcass burial pits) are located in accordance with local government planning and building laws.

Site stables with appropriate buffer distances to sensitive environments. For more information see our WQPN no. 15: *Sensitive water resources* and our WQPN no. 6: *Vegetation buffers to sensitive water resources*.

Construct floors and washdown areas with water resistant hard-stands such as concrete or compacted limestone, especially for stables that are located on sandy soils or in environmentally sensitive areas. The use of impervious hard-stands is encouraged as it reduces the amount of nutrients from leachate (formed from manure, urine and bedding) that reach the environment.

It is important to design horse facilities so that drainage and run-off is directed to nutrient collection points such as basins or swales for treatment. Basins or swales should be designed to filter the nutrients from water via vegetation and soil.

Carefully consider the type of bedding to be used in stables and associated compounds. Bedding can be straw, wood waste, or another appropriate absorbent organic material. After bedding has been used it can be composted and recycled for crop growing.

Managing horse manure

To minimise the impact of horse waste on the environment, remove manure from paddocks and stables daily and place in a covered skip bin, composting area with a hardstand base, or bag the manure and immediately export it off-site. This is particularly important where storage on-site is likely to result in nutrients leaching into water resources.

If manure needs to be stored prior to removal off-site or composting for fertiliser, place it on a low permeability surface and covered with a waterproof material. This prevents fly breeding, liquid waste run-off and reduces the possibility of waste discharges to surface water and groundwater.

Paddock management

Use perennial pastures to reduce the negative effects of grazing horses, such as paddock erosion. Allow pasture to become well established before allowing horses to graze. This encourages good root growth and minimises the possibility of boggy areas being formed. Contour tillage and drainage systems can be used to control water flow in areas prone to erosion.

Rest paddocks between grazing periods to minimise erosion and reduce poor water drainage.

For more detailed information and guidance on the topics discussed in this brochure, see our Water Quality Protection Guideline (WQPG) no. 13: *Environmental guidelines for horse facilities and activities*.