

FAQ: Grey water requirements for vessels on inland waters

Updated September 2011

EPA 725/11: This information sheet provides explanations on the grey water requirements based on the Code of practice for vessel and facility management (marine and inland waters).

What is grey water?

Grey water is water that has been used for washing, laundering, bathing or showering. This includes water containing dissolved or undissolved by-products such as fat and oil, food scraps that contain nutrients, household chemicals, soap and detergent rich in phosphate, nitrate and microbiological pathogens (e.g. bacteria and viruses).

If grey water is discharged into aquatic environments it can damage ecosystems, create algal blooms and pose significant human health risks.

What do I have to do with the grey water and why?

The [Code of practice for vessel and facility management \(marine and inland waters\)](#) introduces mandatory requirements for vessel operators managing wastewater. A range of options are available for the management of grey water, depending on the size of the vessel and how it is used. Grey water management options include containment, treatment and changing on-board behaviour regarding water use. For more information regarding the specific grey water management requirements for your vessel, refer to the EPA's information sheet titled [Flow chart for minimum grey water requirements for vessels on inland waters](#).

Grey water management requirements have been introduced by the EPA in response to the increasing environmental and public health risks associated with discharging vessel grey water into South Australia's aquatic environments.

What are the timeframes set out by the code?

For the management of grey water, vessel operators are required to observe the following compliance dates:

- 1 January 2009 for all newly constructed vessels
- 1 January 2010 for existing commercial vessels in survey and those that are permanently occupied
- 1 January 2011 for all other vessels.

How were these timeframes developed?

The timeframes were developed after three years of extensive consultation with stakeholders, industry groups and the general public. The timeframes set were determined to be reasonable and practicable, and took into account social and economic factors, environmental risk, availability of products and services, and the need to set targets to give surety.

What if I can't meet the timeframes set out by the code?

Vessel operators who are experiencing difficulties with achieving compliance by the stated deadlines should notify the EPA in writing as soon as is reasonably practical, clearly outlining the circumstances resulting in the inability to meet the above timeframes.

How much grey water is produced on a vessel?

On average, residents on board houseboats with showers, washing machines, dishwashers, galleys and sinks can produce up to 150–160 litres of grey water per person per day. However this can be significantly reduced by installing water saving devices on board the vessel. The following table summarises the advantages of installing water saving devices to your vessel:

Average grey water production rate for standard domestic appliances

Appliance	Type	Average rate of flow	Average use per cycle (L)	Reference
Shower	Standard	15–25 L/min	120 L	Australian Govt (DSEWPC)
		15 L/min	120 L	Sydney Water
		12 L/min	N/A	WA Water Corporation
		15 L/min	120 L	Brisbane City Council
		20L/min	140 L	QLD Water Commission
		15 L/min	120 L	Hunter Water
	Water efficient	9 L/min	72 L	Australian Govt (DSEWPC)
		9 L/min	72 L	Sydney Water
		9 L/min	N/A	WA Water Corporation
		8.5 L/min	68 L	Brisbane City Council
Taps	Standard	15–18 L/min	N/A	Australian Govt (DSEWPC)
		15–17 L/min	N/A	Sydney Water
		15–20 L/min	N/A	WA Water Corporation
		17 L/min	N/A	Hunter Water
		16 L/min	N/A	South East Water, VIC
	Water efficient	2 L/min	N/A	Australian Govt (DSEWPC)
		3 L/min	N/A	Sydney Water
		9 L/min	N/A	WA Water Corporation
Dishwasher	Standard	40 L/cycle		Sydney Water
		40 L/cycle		WA Water Corporation
		50 L/cycle		Brisbane City Council
		28 L/cycle		QLD Water Commission
	Water efficient	18 L/cycle		Sydney Water
		20 L/cycle		Brisbane City Council
Washing Machine	Standard	156 L/cycle		Sydney Water
		170 L/cycle		Brisbane City Council
		165 L/cycle		QLD Water Commission
	Water efficient	72 L/cycle		Sydney Water
		80 L/cycle		Brisbane City Council
		50 L/cycle		QLD Water Commission

Will the existing river vessel waste disposal stations have the capacity to handle the increased load created by grey water containment?

River vessel waste disposal stations are provided free of charge by the state government and are managed in South Australia by the Department for Water. These stations can accept both grey water and black water.

The EPA is actively working with the Department for Water regarding developments, load projections and potential impacts on the waste disposal stations.

For more information on waste disposal stations, please contact the Department for Water on (08) 8463 6800 or to obtain a copy of the [River vessel waste disposal options, Edition no.2](#).

How can I find out about grey water management products, and which grey water management option is best for my vessel?

Please contact your nearest marina or slipway operator for more information about grey water management products, and which grey water management option is best for your vessel. The EPA's information sheet titled [Grey water requirements for small vessels and vessels with minimal grey water requirements](#) also lists suppliers of grey water management products.

Can I contain grey water in my existing black water storage tank?

Yes, but you may need to review the capacity of your existing storage system and ensure that it meets the requirements of the [code of practice](#). Also be aware that adding grey water with large amounts of fats and oils to any holding tank may result in blockages of pipework. The best practice would be to wipe down plates and cooking equipment with paper towelling for disposal via hard waste prior to washing. Vessel owners must also be aware that any plumbed connection to a wastewater holding tank should have a sewer trap fitted to prevent gases entering the vessel.

Can treated grey water be used to water areas on land?

The EPA recommends that treated grey water from vessels should not be used to water areas on land as it may present a risk to human health and the environment. For further information, contact the South Australian Department of Health.

Can I pump wastewater from my vessel's containment tank into my shack's sewerage system?

This has the potential to cause problems and must be approved by the local council. For more information please contact your local council.

How much do grey water treatment or containment systems cost?

The EPA does not have information on the costs of grey water treatment or containment systems. For more information on costs, suppliers, etc, please contact the Boating Industry Association of South Australia (BIASA) on (08) 8212 6000 or visit www.boatingsa.com.au/greywater.asp, or contact your local marina or slipway.

Are there any government subsidies available for people to install grey water treatment or containment systems?

Currently, there are no government subsidies available for people to install grey water treatment or containment systems.

Is there support available for product development and infrastructure?

The EPA has, and will continue to, provide technical support and advice as it is approached to assist grey water developers to introduce systems which will fulfil the requirements and recommendations of the [code of practice](#).

Does the EPA endorse a particular product?

The EPA will not endorse, approve or recommend a product. However, the EPA will recognise a product that meets the grey water discharge criteria listed in the [code of practice](#). Recognised systems will be listed with the Boating Industry of South Australia (BIASA). For more information please contact BIASA on (08) 8212 6000 or visit www.boatingsa.com.au/greywater.asp.

The EPA in partnership with Standards Australia has published an Australian Standard for grey water treatment systems for vessels operating on inland waters. This standard sets an industry benchmark that aims to provide consumers with a quality product that won't pose environmental and public health risks. For more information on the standard please visit www.infostore.saiglobal.com/store/Details.aspx?ProductID=1137373

What kinds of questions can I ask my grey water treatment system provider?

Questions you could consider asking your grey water treatment system supplier include:

Design

- 1 Are there different size systems?
- 2 A big system won't fit on my boat—do you make a smaller size system that will fit?
- 3 Do you retrofit systems to suit the layout of my boat?
- 4 How long will the system last?
- 5 Does the system use much power?
- 6 How many litres per day can the system handle?
- 7 Does the system have an alarm that tells me it is getting full?
- 8 How much does the system cost?
- 9 How do I know if the system is working? Is there an alarm in place?

Installation

- 10 Is installation expensive and how long does it take?
- 11 Does my vessel have to be out of the water to install the system?
- 12 Will my vessel still pass survey with this system installed?
- 13 Who can install my system and are they a recognised member of a professional boating/vessel organisation with a code of ethics?
- 14 Can I install it myself?

Accreditation

- 15 Is this system recognised by the Boating Industry Association or other professional boating/vessel organisation with code of ethics?
- 16 Does all the pipe work comply with the [code of practice](#)?
- 17 Does the system meet the discharge criteria of the [code of practice](#)?
- 18 Does the system comply with the Australian Standard, AS 4995?

Contacts

- 19 Can you provide me with the contact information for some of your customers with whom I can ask about the performance of your system?

Maintenance

- 20 Does the system have a warranty?
- 21 What happens if the system breaks down?
- 22 Do I have to change any filters?
- 23 Can I service the system myself?
- 24 What are the maintenance costs?
- 25 Does it come with operating and maintenance instructions?
- 26 How long does it take to service the system and how often does this have to happen?
- 27 Will I get my hands dirty servicing the system — is it a messy job?

Testing

- 28 Was the system tested under maximum load? What was this load?
- 29 Was the testing analysed and collected by a certified laboratory?
- 30 Has the system be trialled on a commercial vessel and what were the results?

Operation

- 31 Are there specific detergents that I can use in the laundry, bathroom and kitchen that will improve the efficiency of the system?
- 32 Do you provide information that will teach me how to improve the efficiency of the system?
- 33 Are there certain chemicals that I can't put down the system?
- 34 Will the system handle sewage if it enters the system due to unforeseen circumstances?
- 35 Can I drink or recycle the water that comes out of the system?
- 36 Does the system treat 100% of all flows from sink, washing machine, dishwasher, handbasins and showers?
- 37 What happens when half a tub of cream goes down the sink?
- 38 Will the system cope with half a pavlova being washed down the sink (yes it happens!)?
- 39 Do I have to scoop out fat from the system or manually remove oil and grease?
- 40 Will the system get clogged with hair from the shower?
- 41 Does the system kill germs reliably?
- 42 What happens if there is a power failure?
- 43 Will the system cope with nappies being washed in the shower and washing machine?
- 44 Will the system remove all colours from the grey water (like coffee, red wine and food dyes)?
- 45 Will the system treat the grey water so that it will be safe for my kids to swim near the vessel without getting sick?
- 46 Will the system stink?

How many riverboats are located along the river in South Australia?

It is estimated that there are approximately 2,000 riverboats operating on the River Murray in South Australia, including approximately 300 commercial hire boats.

Is there a difference in legislation for vessels that occupy inland waters in comparison to those that occupy the ocean?

Yes, there are different requirements for vessels on inland and marine waters. This FAQ document specifically focusses on the grey water requirements for inland waters. For more information on requirements for marine vessels, please refer to the contact information listed at the end of this document or visit www.epa.sa.gov.au/vfm.

How is the EPA going to enforce the new grey water components of the legislation?

All river vessels will be subject to random inspection regimes for compliance with black and grey water requirements and may be subject to enforcement where compliance is not being met.

Mandatory provisions of the code of practice may be enforced on vessel owners and operators in several ways by:

- issuing an Environment Protection Order (EPO) to secure compliance with the policy, or
- issuing an on-the-spot fine for failing to comply with an EPO, or
- prosecuting through the Court (maximum penalty \$250,000).

Authorised officers from the EPA and other government authorities may enforce the *Environment Protection (Water Quality) Policy 2003* which allows for on-the-spot fines for pollution offences.

Please refer to the code of practice for a detailed summary of the mandatory provisions.

How does the Code of practice for vessel and facility management (marine and inland waters) link to existing legislation?

The code was gazetted on 10 July 2008. It is linked to the *Environment Protection (Water Quality) Policy 2003* and supersedes the *Code of practice for vessels on inland waters (2003)*.

Will the inspection of compliance with the grey water requirements be linked to the existing survey process for commercial vessels on inland waters?

Yes, grey water requirements will be inspected through the existing survey process for commercial vessels on inland waters.

Will private vessels on inland waters require inspection for compliance with the grey water requirements?

At this stage it is not a requirement for privately owned vessels operating on inland waters to be inspected for compliance with the vessel wastewater regulations. However, a number of vessel service facilities/inspectors have been accredited by the EPA to inspect and verify your vessels compliance status as part of a new program which is currently being expanded.

Owners of vessels which have been verified as wastewater compliant are issued with a 'Wastewater compliant' sticker to display on their vessel. The details of the inspection are then forwarded to the EPA who will issue the vessel owner with a letter of compliance.

The following vessel service facilities/inspectors have been accredited by the EPA to inspect your vessel for wastewater management compliance:

- Mannum Marine (Greenings Landing) – (08) 8569 1609
- The Marina Hindmarsh Island – (08) 8555 7300
- Mannum Slipway and Moorings – (08) 8569 1620
- Long Island Marina – (08) 8532 6900
- Justin Inglis (Berri Slipway) – 0407 277 161

- George Godz (independent surveyor) – 0407921162
- Leo Vette (independent surveyor) – 0428 330 405
- Bill Leonard (independent surveyor) – 0400 824 816 or (08) 8532 1304
- Andrew McFarlane (independent surveyor) – 0413 525 242

All accredited inspectors are entitled to charge a fee for the inspection process. If you request an inspection of your vessel by an EPA officer, a fee will be charged for this service.

How are boating activities regulated on the River Murray outside of South Australia?

All boating activities on the River Murray outside of South Australia are subject to NSW legislation. NSW and Victoria share a common border along the Murray River from its headwaters in the Snowy Mountains to the South Australian border. The actual boundary between the two states is located at the high-water mark of the southern, or Victorian, bank of the original course of the Murray River.

Is there grey water legislation for vessels operating in other states?

Yes, the NSW Maritime Authority administers the *Marine Pollution Regulation 2006*. This regulation contains specific provisions, including a requirement for all commercial vessels (belonging to either the passenger carrying or hire and drive classes) built after 1 January 2005 and used on the River Murray or Sydney Harbour to be fitted with grey water containment tanks.

In Victoria, the *Lake Eildon Recreational Area (Houseboats) Regulations 2003* covers the 700 houseboats (capped number) that are operating on Lake Eildon and contains strict requirements in regards to wastewater management.

Is the EPA working with other states regarding developing common legislation for grey water management along the River Murray?

The EPA is actively promoting South Australian developments in grey water management to the NSW Maritime Authority and NSW boating industry representatives.

The NSW Maritime Authority and Goulburn-Murray Water (Lake Eildon) have recently indicated that due to the recent advancements in grey water treatment technology and changes to legislative requirements in South Australia, they would be receptive towards discussions with the EPA in reviewing the existing regulations to include grey water treatment options, with policy amendments well advanced in both jurisdictions.

If I register my boat in another state, but operate it in South Australia, do I still have to comply with the SA grey water requirements?

Yes, any boat operating on South Australian waters is required to comply with the Code of practice for vessel and facility management (marine and inland waters).

Is there any guidance available to help me understand the requirements of the new code of practice?

The EPA has developed specific [vessel and facility management](#) webpages to assist vessel owners with understanding the requirements of the new code of practice. These webpages contain links to the [code of practice](#) and a number of other EPA publications, including:

- EPA Guideline: [Managing vessel wastewater for black and/or grey water](#) (2010)
- EPA Information: [Wastewater requirements for vessels on inland waters](#) (2010)
- EPA Information: [Grey water requirements for small vessels and vessels with minimal grey water production facilities](#) (2011)
- EPA Information: [Flow chart for minimum grey water requirements for vessels on inland waters](#) (2011)

Please refer to www.epa.sa.gov.au/vfm or contact the EPA for more information.

Who can I contact for more information on grey water treatment systems?

For more information on grey water systems, please contact the Boating Industry Association of SA (BIASA) on (08) 8212 6000 or visit www.boatingsa.com.au/grey_water.asp.

Disclaimer

This publication is a guide only and does not necessarily provide adequate information in relation to every situation. This publication seeks to explain your possible obligations in a helpful and accessible way. In doing so, however, some detail may not be captured. It is important, therefore, that you seek information from the EPA itself regarding your possible obligations and, where appropriate, that you seek your own legal advice.

Further information

Legislation

Legislation may be viewed on the Internet at: [<www.legislation.sa.gov.au>](http://www.legislation.sa.gov.au)

Copies of legislation are available for purchase from:

Service SA Government Legislation Outlet	Telephone:	13 23 24
Adelaide Service SA Centre	Facsimile:	(08) 8204 1909
108 North Terrace	Website:	<shop.service.sa.gov.au>
Adelaide SA 5000		

For general information please contact:

Environment Protection Authority	Telephone:	(08) 8204 2004
GPO Box 2607	Facsimile:	(08) 8124 4670
Adelaide SA 5001	Freecall (country):	1800 623 445
	Website:	<www.epa.sa.gov.au>
	Email:	<epainfo@epa.sa.gov.au>
