Water Awareness and Charge Certificate Manual

Module 56: Environmental Conservation and Boat Washing

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Revision History

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Module 56: Environmental Conservation and Boat Washing	Initial Release	1.0	7 Feb 2017

Outcomes

After completing this module, the certificate holder will be able to:

- Explain the policy of DWS with regards to recreational water usage
- Take steps to avoid polluting water resources
- Protect aquatic ecosystems from the spread of invasive vegetation via boat washing

1 Environmental Conservation

1.1 Recreational Water Usage

South Africa's water resources fall under the control of the Department of Water and Sanitation (DWS). The terms of usage of these water resources is outlined in the National Water Act (No 36 of 1998) and clarified in the DWS Operational Policy "Using Water for Recreational Purposes"

Traditionally, water has been managed around consumption, aimed at domestic, industrial and agricultural use of water, with little reference to non-consumptive uses such as recreation. Only recently has there been a need to include recreation as a water use rather than merely focusing on controlling access to water resources. The policy of DWS is that:

- Water and associated resources are protected, conserved, developed, managed, controlled and utilised in an environmentally sound and equitable manner
- The use of water for recreational purposes is appropriately authorised.
- The use of water for recreational purposes will be safe and sustainable, both from a resource as well as industry perspective.
- There is equal access for all South Africans to water resources
- Aquatic and associated ecosystems and their biological diversity are protected

1.2 Water Quality

Water Quality is an area of particular concern for recreational water users. Recreational use can have a major impact on the DWS policy that water resources are utilised in an environmentally sound manner. Recreational water activities expose the water resource to pollution (human waste, garbage, fuels and oils) and invasive vegetation.

As a recreational user, it is our responsibility to prevent the water resources from being exposed to all forms of pollution.

1.3 Appropriate Authorisation

The National Water Act states that all water use must be authorised. That is to say, we cannot arrive with our boats at any body of water and proceed as we like. Land owners and clubs with direct access to the water will typically obtain this authorisation from DWS and they can then permit their guests/members to use the water.

It can generally be accepted that the club / land owner hosting the activity will have the necessary authorisation, but you can ask for it if you are unsure.

1.4 Safe and Sustainable use

The use of water resources for recreational purposes needs to be undertaken in a safe manner. This implies that the user is competent and the vessel is compliant with the relevant vessel safety regulation. User competence and vessel safety falls under the scope of the South African Maritime Safety Authority (SAMSA). Together with the authorised water users, SAMSA will define what recreational activities are allowed on a specific body of water.

The recreational activities also need to be sustainable. This means that the water itself is protected as far as possible, physical features such as waterfalls, rapids, obstructions, weirs etc. are undamaged and occurrence of wildlife such as fish, crocodile and hippo are unharmed. This can lead to additional restrictions being placed on recreational activities.

1.5 Protecting Aquatic Ecosystems

Invasive vegetation such as hyacinth and spiked milfoil is becoming a real threat in many water systems. The vegetation forms dense canopies, reducing water quality and destroying the habitats for fish populations. The vegetation also interferes with recreational activities and can impact on power generation, irrigation and water delivery for consumption.

Hyacinth is flourishing in many of South Africa's rivers and chokes the surface and restricting water flow. Hyacinth reproduces extremely quickly, doubling its population every 2 weeks during summer. Each plant also produces seeds which can remain viable for up to 28 years.

Spiked milfoil has invaded many smaller dams, crowding out native plants and creating dense mats that interfere with fish life and recreational activity

Recreational water users are partially responsible for the spread of this vegetation as we move our boats and equipment between different resources, providing a convenient method of transport for the seeds. We need to take measures such as boat washing to minimize our impact.

2 Boat Washing

Boats, trailers, PFDs and other boating equipment can spread aquatic invasive species from waterbody to waterbody unless properly cleaned, dried or disinfected after use. While some invasive species such as milfoil are readily visible to the human eye, many others are too small to be readily noticed. We can take the following steps to avoid spreading invasive species:

- Do not discharge any wash rinse to surface waters.
- Rinse boats in designated areas where the water can be contained and treated.
- Make sure that only environmentally friendly products are used during washing procedures.

2.1 Outside

Boats may be stored afloat, or on the hard. If they are afloat, vegetation will begin to grow on the hull. This typically takes the form of algae, but other forms of vegetation and aquatic creatures such as muscles can also attach to the hull. If the boat is on the hard, there is limited scope for growth of vegetation, but plant matter and seeds can still collect on the hull Boats stored outside also tend to accumulate pollen and airborne seeds on their decks

Begin by removing all visible mud, plants, fish or other biological material from the boat. This may require vigorous scrubbing if the boat has been in the water a long time. Make sure that the material is disposed of in a safe area. Complete the wash with a high pressure wash of the hull and deck using fresh water. Don't allow the washing water to enter the adjacent surface water and allow the vessel to dry before using in a different body of water.

Finally, run your hand over the hull to feel for seeds that may be attached.

2.2 Inside

The inside of boats refers to enclosed areas of the vessel, such as cabins / salons and bilges. These areas typically collect water, sand, silt, food scraps and rubbish.

To clean these areas, use a vacuum, bucket and sponge, much as you would when cleaning your house. Be sure to completely drain the boat of all water in the bilges and ballast tanks before leaving the washing area.

2.3 Trailers

Trailers are seldom in the water for any length of time, so algae growth is not a problem. However, invasive vegetation is often caught in slipways and the trailer will be driven through the vegetation to launch / recover the vessel.

Again, begin by removing all visible mud, plants, fish or other biological material from the trailer. Pay special attention to areas where vegetation collects, like the rollers and axel. Make sure that the material is disposed of in a safe area. Complete the wash with a high pressure wash of the hull and deck using fresh water. Don't allow the washing water to enter the adjacent surface water and allow the trailer to dry before using in a different body of water.

2.4 Equipment

Auxiliary equipment used in the course of boating activities (e.g. anchors, PFDs, paddles, water skis) all have the potential to collect mud and biological material when in contact with the water. Remove any mud and biological material, wash with high pressure fresh water and allow the equipment to dry before using in a different body of water.