



MARINE ACTIVITIES

SUSTAINABILITY GUIDE

This good practice guide has been developed specifically for marine-based tourism businesses, such as those operating sailing charters, wildlife encounters, scuba diving, sport fishing and other marine sports. It provides targeted and practical ideas for business sustainability. Further information, tools and similar guides for other types of tourism businesses are contained in the Ministry of Tourism website: www.tourism.govt.nz/sustainability



COMMUNITY RELATIONS

- Keep the community informed of initiatives and seek involvement and support (e.g. open days, sponsored community or school trips).
- Employ local staff, and offer internships or tourism work-experience.
- Donate old, partially used or unused products to charitable causes (e.g. soap, toiletries, old wetsuits, buoyancy vests, paints and thinners, towels, kitchenware and office equipment that is still functional).
- Encourage guests to purchase local products and services (e.g. establish collaborative offers with other local tourism businesses).



FUEL EFFICIENCY

- Select the cleanest burning, most fuel efficient engine models to reduce hydrocarbon pollution (e.g. choose four-stroke outboard motors, which are more fuel efficient, cause less pollution and are quieter).
- Where two-stroke engines are used, ensure the correct oil to fuel mix is maintained at all times (e.g. fouled spark plugs could indicate too much oil).
- Tune engines regularly (in line with manufacturer's specifications), to keep engines running cleanly and at peak performance.
- Work with skippers to implement fuel efficient vessel operations (e.g. regulate cruising speed).
- On larger vessels, investigate retrofitting in-board engines to use biodiesel as an alternative fuel source.



FUEL HANDLING

- Implement spill prevention and clean-up plans for refuelling (e.g. integrate into Operations Manuals), and ensure all appropriate staff are trained in these procedures.
- Refuel at an approved area (equipped with a spill kit), using a fuel pump.
- Always hold fuel dispensers by hand if nozzles do not have automatic shut-offs.
- Install a fuel-air separator, a fuel gauge, or a tank whistle in fuel tank vent lines to prevent fuel spills.
- Know the capacity of fuel tanks prior to refuelling, and allow 5% extra room in each tank for expansion.
- Keep sorbent material (e.g. pads which soak up oil, not water) on deck, to catch any fuel spills, and where possible, plug the scuppers with rags during refuelling.
- Always fill portable fuel tanks on shore. If you must refuel vessels on water, use an appropriately sized funnel to transfer fuel from containers.



WORKPLACE CULTURE

- Develop induction and training processes that include sustainability as a core element; include in operational manuals.
- Communicate sustainability initiatives to staff (e.g. through awareness sessions, meetings), encourage suggestions, actively involve them, and reward achievements (e.g. build values into performance criteria for staff).
- Promote volunteering as an option for staff to further develop skills (e.g. marine conservation work).



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MANAGEMENT OF BILGE WATER

- Always use a drip tray or keep a piece of sorbent material under the engine to soak up any accidental spills.
- Inspect bilges regularly, including lines and hoses for deterioration, and fix small leaks that drip oil into the bilge.
- Repair water leaks to reduce the volume of water entering the bilge, and the frequency bilges will require pumping out.
- Clean up any oil in the bilges before turning on pumps (e.g. use sorbents).
- Where practical, use an oil-sensitive bilge pump which shuts off before accidental oil discharge, and fit an oil-absorbent overhead filter to the bilge pump's overhead discharge hose.
- Never add detergents, degreasers or chemicals to bilge water before pumping it out (this is more toxic than oil and difficult to clean up); use enzyme-based bilge cleaners which are less polluting.
- Do not pump oily bilge water overboard – use a marine bilge pump out service (where available), and if extremely oily, a steam cleaning service.



FIRE PREVENTION

- Keep all fire extinguishers on board vessels (e.g. dry powder, CO₂, foam) outside the engine space, within reach of the open deck or cockpit.
- Provide practical training to all staff in using portable fire extinguishers (in conjunction with fire extinguisher supplier).
- Regularly inspect and maintain all fire protection systems on board vessels.
- During refuelling, have an extinguisher ready, never smoke and ventilate the boat thoroughly afterwards, to reduce the risk of sparks igniting.



CONTRIBUTION TO CONSERVATION

- Support local marine research and conservation efforts (e.g. do voluntary reporting of marine mammal activity and interactions to DoC).
- Identify opportunities to engage customers to make a positive contribution to local marine conservation efforts (e.g. introduce 'adopt a marine mammal' scheme, encourage customers to report sightings).
- Implement team-building days, volunteering on a local conservation project (e.g. beach clean ups, sea week, DoC projects).
- If you see an oil spill in coastal waters, report it immediately to the regional council or Maritime NZ.



MINIMISING WASTE

- List all wastes generated by the business, and think of what can be done to avoid sending them to landfill.
- Choose from the following management options for each waste stream: Avoid, Reduce, Reuse, Recycle, Compost. Regularly check on progress and costs (e.g. conduct simple waste audits).
- Reduce the use of office consumables (e.g. print double sided, reuse paper, keep electronic copies instead of paper, purchase refillable products).
- Purchase consumables in bulk to avoid unnecessary packaging waste on board vessels, and supply reusable crockery, cutlery and containers.
- Provide labelled recycling containers on vessels, and put recyclable wastes (including used marine batteries, engine oil and oil filters) in appropriate facilities onshore.
- Ensure that all passengers understand waste management procedures, and erect signs stating that waste must not be thrown overboard.
- Secure all loose items and always collect articles that fall overboard accidentally, including any floating rubbish observed.
- Take all solid waste created onboard vessels back to shore, and dispose of it appropriately. Crush or compact solid wastes on board vessels, to reduce the volumes to be removed.
- Safely segregate all hazardous wastes (e.g. waste oils, batteries, old anodes, antifreeze, transmission fluids, oil/fuel contaminated absorbents, paint residues from hull sanding/scraping) and find schemes for the safe management of these wastes; ask your council for advice.
- Lobby council to support your waste management efforts (e.g. supplying waste separation, recycling and treatment systems at the marina).



MANAGING GREY WATER

- Minimise grey water discharge by reducing water use on vessels (e.g. keep showers, washing and dishwasher operation while at sea to a minimum).
- Use paper towels to clean up cooking oil and fat residues, and take back to shore.
- If practical, store grey water in holding tanks, and either reuse as toilet flush water or pump out at shore facilities for treatment before disposal.



MANAGING TOILET WASTES

- Encourage customers to use onshore toilets, prior to departure.
- If the vessel has no marine toilet, take a portable toilet when going on a trip of more than half a day, or plan for onshore stops as often as needed.
- Do not dump any untreated sewage into the sea within 500 metres of the high water mark, 500 metres of a marine farm, 200 metres of a marine reserve, or in water less than 5 metres deep. Check with your regional council whether any area-specific requirements apply.
- Install holding tanks (or a sewage treatment system) on vessels, and pump sewage to on-shore facilities for appropriate treatment before disposal.
- If on-shore pump out facilities are not available, but holding tanks are installed, ensure the tank discharges at a moderate rate, while the vessel is moving.
- Avoid using chemical-based holding tank additives; use enzyme-based treatment to break down solids and reduce odours.
- Hang a notice prominently in each toilet, with operating instructions, safety precautions and warnings for using the marine toilet system.
- Do not dump fats, solvents, oils, emulsifiers, paints, poisons, phosphates, nappies or sanitary products directly into any boating waters, or marine toilet systems.
- Use fast-dissolving marine tissue to prevent on-board sewage treatment systems from clogging (or single-ply paper).
- Check marine toilets, including hoses, fittings, valves and mechanisms regularly, and keep them well maintained.



VESSEL OPERATION

- Keep within 'no wake' zones and speed limits, stay toward the centre of water channels and keep vessels properly trimmed to reduce the impact of wake.
- Reduce vessel noise by using underwater mufflers and avoiding prolonged idling.
- Leave at least 30 cm clearance between the vessel's propeller and the seabed to avoid churning up bottom sediments.
- Keep clear of 'no anchor zones' (e.g. underwater cables, clearly marked on charts), and avoid anchoring where damage to another boat could occur.
- Always observe rules of marine protected areas, and Marine Mammal Permits, where applicable.
- Never harass marine animals or bird life: observe from a distance.



SUPPLY CHAIN MANAGEMENT

- Review all products and services that you purchase, and advise your suppliers that you will give preference to products that meet social and environmental criteria (e.g. based on distance from origin, biodegradability, toxicity, recycled content, ability to be recycled etc).
- Select environmentally certified goods and services, where available (e.g. Environmental Choice).
- Consider 'whole of life cost' in future sourcing decisions (e.g. whether products can be returned to suppliers, recycled, sold or donated after use – look for supplier 'take back' schemes, consider from 'cradle-to-grave').
- Create written contracts for boat maintenance and repair, and ensure they include requirements for protecting health, safety and the environment (e.g. from product selection through to disposal of hazardous wastes).
- Consider fuel-type, efficiency and emissions, alongside operational needs, when selecting new vehicles and vessels (e.g. hybrid, bio-fuel powered or clean burning diesel).
- Investigate renewable on-board power sources for vessels (e.g. installing solar and/or wind generation – hybrid marine power systems).
- Consider 'sustainable' clothing alternatives when sourcing new uniforms (e.g. Eco Fleeces produced from recycled PET plastic, organic merino and cotton fabrics).
- Use publishers that offer 'green' options for publishing promotional materials (e.g. vegetable-based inks printed on recycled [100% post-consumer content, Process Chlorine Free] paper) and communicate this in printed materials.



HEALTH AND SAFETY

- Owner/operators and staff need to schedule holidays at least once a year to enhance personal well-being.
- Implement a health and safety programme for all staff, using templates developed by Worksafe.
- Issue staff who undertake vessel cleaning and maintenance with appropriate personal protective equipment; enforce the requirement to wear it.
- Join the Accident Compensation Corporation (ACC) Workplace Safety Management Practices Programme. This attracts reduced premiums upon demonstrating that the business health and safety management systems meet the graded requirements.

Clean hulls regularly with soft sponges to minimise marine growth, and extend the life of antifouling coatings.



BUSINESS MANAGEMENT

- Develop and adopt a sustainability policy for the business, and review regularly.
- Develop an Action Plan, setting out ways to enhance sustainability performance; make someone responsible for each action and impose a deadline; review to ensure deadlines are met.
- Integrate sustainability into existing management systems and processes (e.g. include as a specific agenda item in meetings, build into business plans).
- Implement a formal customer feedback process, and include sustainability performance as an area for comment; introduce customer rewards for good ideas.
- Seek to become a carbon neutral certified business, reduce CO₂ emissions as much as possible, and offset those that remain (e.g. by funding native tree planting or energy-efficient schemes to compensate for carbon released from business operations).
- Become Qualmark® endorsed, using this guide to assist in meeting the requirements for environmental accreditation.
- Consult a business mentor, to identify ways to operate more efficiently (free up time), develop and grow the business (e.g. NZTE programmes).



CELEBRATE SUCCESS

- Include sustainability successes in marketing collateral (e.g. website, brochures, sales calls).
- Share and continue to build on sustainability successes through existing channels (e.g. relevant industry associations, business networks).
- Submit an Expression of Interest to the Tourism Industry Association for the New Zealand Tourism Industry Awards.
- Hold celebratory events for staff, and encourage other local businesses to participate.



CHEMICALS AND HAZARDOUS SUBSTANCES

- Use non-toxic, phosphate and chlorine-free cleaners (avoid cleaners with bleach, ammonia, lye or petroleum distillates).
- Use natural products such as citrus, salt, vinegar, vegetable-based soaps and baking soda to clean kitchen areas on vessels.
- Display supplier-provided Material Safety Data Sheet information (detailing health, safety and environmental precautions to be followed), where chemicals are used, and train staff in handling and disposal requirements.
- Regularly apply boat waxes and rinse with fresh water after each trip, to minimise the use of detergents for boat cleaning.
- Clean hulls regularly with soft sponges to minimise marine growth, and extend the life of antifouling coatings.
- Use environmentally friendly alternatives to antifouling paints (e.g. epoxiated vinyls, copper co-polymer paints, silicon and Teflon coatings), or apply regular paint and a coat of slick bottom wax.
- If on-board refrigeration and air conditioning units contain ozone depleting gases (such as CFCs, HCFCs), ensure these are phased out in line with ozone protection legislation, and safely disposed of.



ENVIRONMENTAL EDUCATION

- Develop re-usable laminated “trip cards” to help customers learn about and respect marine environments.
- Keep a reference folder and diary of wildlife observations (e.g. marine mammal activity reports), for customers’ interest.
- Communicate to customers your sustainability initiatives (e.g. inclusion in skipper briefings and signage on vessels), and what they can do to contribute (e.g. waste segregation).

FURTHER INFORMATION:

- MfE 2002, Hold it... We're Cleaning Up the Coast: Dealing with Sewage Safely and Responsibly on Your Boat, www.mfe.govt.nz/publications
- Water Safety New Zealand 2006, Safe Boating: An Essential Guide, www.boatsafe.org.nz
- UNEP 2004, A Practical Guide to Good Practice: Managing Environmental Impacts in the Marine Recreation Sector, www.unep.fr/pc/tourism/library
- For details of industry sustainability initiatives and sources of help, refer to the Ministry of Tourism website, www.tourism.govt.nz/sustainability

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