



2019 49er, 49erFX & Nacra 17 World Championships

Royal Akarana Yacht Club, Auckland, New Zealand

1 - 8 December 2019

SUSTAINABILITY REPORT

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Introduction

New Zealand is renowned as a clean, green and beautiful part of the world. Sailors worldwide are adopting practices to help protect the marine environment and minimize any negative effects of their sport. Our goal while holding the 49er, 49erFX and Nacra 17 World Championships from 1-8 December 2019 in Auckland was to minimize our effect on the environment and leave the Akarana sailing area better than when we started. For the participants and followers to leave this regatta with a better understanding of their personal impact on the environment, and a knowledge of how to reduce and improve that impact, would be fantastic.

To achieve this, we have undertaken the challenging task of attaining a Platinum Level Clean Regatta Program with the organisation Sailors for the Sea. Following are the requirements of the Program checklist and how we have strived to achieve those requirements.



Event Management

1. Assemble a Green Team

- ✓ Invite the community to help with the sustainability challenge.

We endeavoured to have as much community involvement as possible in achieving our sustainability challenge. Ngati Whatua Orakei, our local iwi, were very involved with blessings at the beach clean-up, opening ceremony etc. They informed the audiences of the history and importance to Iwi of the waters of Okahu Bay and how appreciative they were of these sustainability measures to improve the quality of the Bay. We had a great turn out of locals to our beach clean-up following the advertising on local media and Facebook. OBC and Orakei Marina took on board the project for the blue fish on the drains. YNZ advertised our photo competition on their website to invite people to take part. Local photographer Karin Goldwater prepared a photo display for us and Christine Hansen provided us with photos for displaying on TV screens.



Green Team members Debbie, Sandy & Ulrika

- ✓ Create a dedicated team of volunteers / staff to assist with running a Clean Regatta.

Our Green Team committee was organized in May 2019 and jumped in boots and all to get things rolling. Key members were Ulrika Wilcox, Sandy Dawson and Debbie Meech, working closely with the regatta Event Director Peter Dawson and Regatta Secretary Jude Eades, who considered environmental aspects in all organisation for the regatta. The committee worked together to put a clean regatta plan in place and ensure every aspect of the regatta considered the environmental impact and best practice for environmental protection. We aspired to achieve Platinum status.



As the regatta dates drew near, we recruited more helpers for the Green Team, building a roster of people to supervise rubbish and recycling and to ensure the water filling stations were topped up.

- ✓ Identify and recognise your Green Team to participants.

Using the Facebook forum and our Regatta APP, we introduced Ulrika, Sandy and Debbie to the sailors.

We also introduced ourselves at the Sailors and Coaches Welcome BBQ and Boat Park Clean-Up function. Volunteer T-shirts for the Green Team were printed with GREEN TEAM added on the back to identify us and make us visible in the boat park. During the build-up and during the regatta, we endeavoured to identify and promote all the parties who had worked with us and provided product and services to meet our sustainability objectives.



Facebook post introducing the Green Team:

2. Public Engagement

- ✓ Share your sustainability success on your regatta website

Rather than a specific website for the regatta, information about the regatta was posted on the two class websites:

- ➔ <https://49er.org/event/2019-world-championship>
- ➔ <https://nacra17.org/events/2019-world-championship>

The sailing forum Facebook pages and the Event APP were also used to communicate sustainability issues, events such as beach clean-ups and the photo competition, and to remind participants of the ongoing measures we were undertaking to make this a sustainable event. Media reports are posted on these vehicles also:

- ➔ <https://49er.org/event/2020-world-championship/?newsid=25413>

- ✓ Commit to supporting World Sailing’s Sustainability Agenda 2030 - the sustainability strategy for the sport and Sailors for the Sea’s ocean conservation message with competitors. Display sustainability signs throughout the event.

We sighted the World Sailing Sustainability Agenda 2030 and feel that the environmental aspects we tried to achieve in this regatta were all part of World Sailing’s environmental objectives in their Sustainability Agenda 2030.

We obtained a World Sailing poster “How long does trash last in the water?” from Dan Reading, Head of Sustainability at World Sailing, changed it for a Yachting NZ logo, and displayed it at the HMSC and ASC. This poster will be great to distribute around New Zealand yacht clubs.



At the venue we erected 3 large towers displaying information about the event and acknowledging our sponsors. On one of the tower panels we highlighted our sustainability issues and informed attendees about our goal for achieving platinum, giving examples of actions we had taken.

- ✓ Promote sustainability actions to media through press releases, social media, and in news stories.

Yachting New Zealand media liaison Michael Brown fronted our press releases pre regatta and included articles relating to sustainability actions.

→ <https://49er.org/event/2020-world-championship/?newsid=25413>

During a period of no-racing due to wild weather Michael interviewed Sandy and Ulrika about our commitment to Platinum and how it was being implemented and received, and he prepared an article for Yachting New Zealand media channels.

→ <https://yachtingnz.org.nz/news/world-champs-aiming-be-clean-and-green>

Media manager Drew Malcolm was appointed for the regatta and ensured material promoting sustainability was included in media feeds.

→ <https://newshub.co.nz/home/new-zealand/2019/09/ghost-dive-cleans-up-auckland-s-okahu-bay.html>

→ https://nzherald.co.nz/nz/news/article.cfm?c_id=1&objectid=12263185

Sky TV covered the regatta and there were many references to the sustainability program during the week, including a live interview with Green Team members Sandy Dawson and Ulrika Wilcox.

For the beach clean-up prior to the regatta, the event was promoted via the local community newsletter, social media links of the Akarana Yacht Club, Outboard Boating Club, Yachting New Zealand, and an article in the NZ Herald. Post event there was a media release through the regatta websites:

→ <https://49er.org/event/2019-world-championship/?newsid=25149>

Thank you letters were sent to the people who turned up on the day and made it such a success, highlighting our sustainability achievement.



Talking to sailors at the Boat Park Clean-Up

3. Paperless Regatta Management

- ✓ Use an online Regatta Management System to handle all electronic registration.

All registrations were entered via the 49er and Nacra websites, controlled by the 49er and Nacra Associations; there were no paper registrations. An APP was designed for management of the regatta, to avoid the need for screeds of paper to be printed (this can be downloaded from the APP store **49er FX Nacra**). This mechanism was used for all notice of race, sailing instructions, results, and communication from the Race Management Team and Jury during the regatta; the official notice board was on the APP. There was also an online measurement system, so very little paper was used in the measurement process. Paper protest forms were required however.



Online registration system

- ✓ Use 100% Post-Consumer Recycled Paper or FSC-certified paper. Ensure all printouts are double-sided.

Any time it was necessary to print to paper (eg protest forms) or write notes, we sourced paper made from FCE or where possible used Rockstock, a tree free, rich mineral paper manufactured from milled quarry waste using no water and minimal energy - waterproof, non-toxic and low GHG emissions: → <https://stonepaper.co.nz>

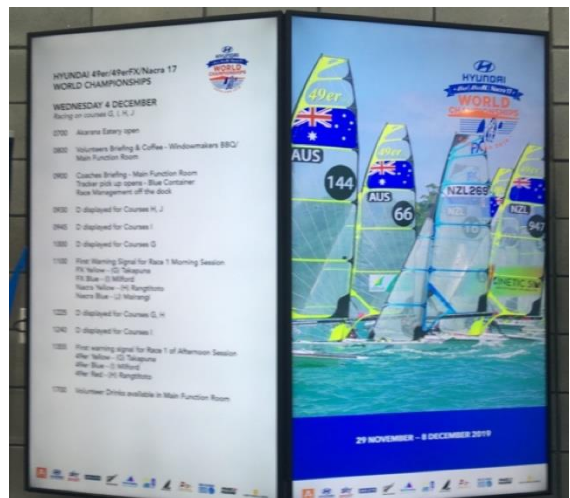
Also, we included in the registration pack we gave to sailors and coaches an A6 booklet (sponsored by Mackay Boats) made from Rockstock for them to use on the water for note taking. We also purchased 1000 sheets of Rockstock for Race Management for their mark roundings etc. at this regatta and for them to use in future regattas.

- ✓ Switch to a flat screen monitor to broadcast event results.

At HMSC there were many large monitors for all manners of communication, from live feeds of the racing, race management communication including results, promotion of environmental initiatives, media reports etc. This reduced the need for paper reports and displays. All information is also available on the APP. The results were posted on the official website and accessible via the APP so anyone could look at them on their device.



Watching TV screen when racing is on



Screens at reception

4. Environmental Outreach

- ✓ Invite local environmental groups to host information booth(s).

Initially we had booked in the Blake VR programme at HMSC, but unfortunately it clashed with the Sir Peter Blake Regatta in Torbay. We also investigated having Sustainable Coastlines on sight, but they were very expensive and we felt that the target audience was perhaps not appropriate (holding the regatta during school time and exam time meant not many younger visitors were at the venue). Instead we endeavoured to find information in the form of videos, DOC posters, links etc. that we could pass on to the sailors and visitors. These were displayed at HMSC and ASC to educate visitors.

At our beach clean-up in September we had representatives from Ghost Fishing and Sea Cleaners, who talked about what they do to clean up the beaches and bays of New Zealand and showed youngsters the creatures found on the items from the bottom of the bay. In addition, we had a representative from Plastics NZ, an organisation representing plastic manufacturers in New Zealand, and she talked to many people about what the plastics industry is doing to improve their sustainability and reduce their carbon footprint.

- ✓ Ensure environmental education activities are available at the venue.

A TV was set up in the upstairs foyer of the yacht club to have a rolling display of amazing photographs of wildlife and ocean scenes in New Zealand.

A local sailing parent, Karin Goldwater, has for years collected and photographed rubbish she has found on her local beach in the Waitemata. She has developed a facebook following all around the world of people who follow what she does and who have also started collecting and photographing rubbish. Karin printed some of her huge collection of photos and created a photo display board for us for the foyer at the yacht club, titled Daily Walks With A Purpose.



Daily Walks With A Purpose photo display by Karin Goldwater

- ✓ Create a sustainability themed competition for sailors and spectators.

Expanding on our amazing photo display by Karin, we started a photo competition, giving the opportunity for sailors, coaches, volunteers or anyone to submit us their photo of rubbish they had seen around the ocean. See posters below of the information about the competition.

➔ <https://yachtingnz.org.nz/news/submit-your-photos-sustainable-oceans>

Submit your photographs for our display:
SUSTAINABLE OCEANS

Our regatta aims to spread the word about Sustainable Oceans
We will be running a digital display and we're inviting you to take part. Be creative with the theme, communicate your feelings about sustaining life for our oceans and coastlines. This is a chance for you to influence and educate the wider community.

Submit to: ulrika1961@gmail.com
or snowhansen@gmail.com
Subject "Sustainable Oceans"
Phone photos: Maximum size jpg file

Camera photos: 2MB jpg ideally
1600 pixels on shortest side.
Resolution 72 dpi
Caption: Optional 15 words maximum

HYUNDAI
WORLD CHAMPIONSHIPS
2019

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HYUNDAI
WORLD CHAMPIONSHIPS
2019

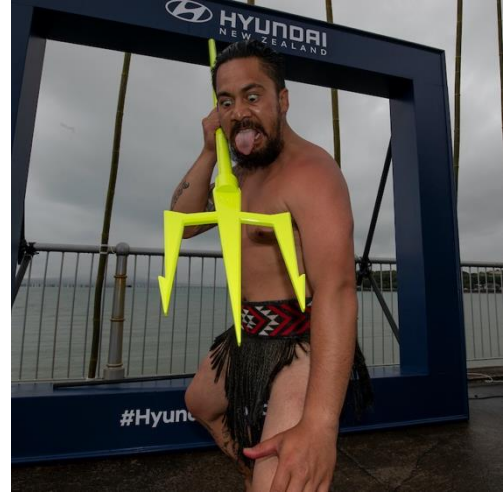
5. Regatta Awards

- ✓ Create or use a perpetual trophy.

Perpetual trophies were created this year by the 49er / Nacra class associations for the winners of the regatta. These were tridents, to be passed on annually at future world championships.



Medal ceremony with tridents presented to Italian Nacra team



In addition to this, the Green Team created a perpetual trophy for Outstanding Environmental Contribution, again to be passed on annually at future world championships. This year it was presented to Yago Lange, an Argentinean 49er sailor who has been active in environmental issues and beach clean-ups around the world. It was engraved with the recipient's name and then will be sent to Melbourne to be presented at the 2020 Worlds.



- ✓ Use sustainably sourced or recycled items in the trophy creation process.

The new Outstanding Environmental Contribution Trophy was created from a piece of a carbon Nacra mast that was damaged in a storm at Akarana Yacht Club in 2019. It was designed and crafted by Mike Pearce, boat builder in Auckland. A plaque detailing this was placed on the bottom of the trophy to tell the story.



- ✓ Ensure no balloon releases or confetti used during ceremonies.

We did not use balloons or confetti during the opening or closing ceremonies, or at any time during the regatta.

Food & Beverage

6. Water Bottle Reduction

- ✓ 100% elimination of all single-use plastic water bottles at your event.

Akarana Eatery, the onsite café at the venue, agreed to not sell single use water or soda bottles. Pita Pit arrived with bottles for sale, but immediately removed them when we asked them to. Water was served in the café in glass bottles / glasses and there were water bottle refilling stations throughout the venue. In the registration packs for sailors, coaches, race management and volunteers there was a regatta specific metal water bottle for refilling. On reflection we should have purchased more of these bottles to have for sale, for those people who arrived at the venue without a bottle or wanted a second.



The Anti-Doping people were required to use new sealed water bottles so we requested they purchase their bottles from FOR THE BETTER GOOD (<http://forthebettergood.com>) This company sells a sustainable, waste-free alternative to traditional plastic bottles that are 100% plant-based. Jude also recommended these bottles to the media etc and others who turned up to Akarana with plastic bottles - it is hard to stop people arriving with them even when you communicate your goal!

- ✓ Require participants to bring their own reusable water bottle.

There was communication to participants, coaches, race management and volunteers that there would be no plastic water bottles on sale at the venue. We provided them with a reusable bottle and requested them to bring their own extra water bottles from home.

7. Water Refilling Stations

- ✓ Provide water to participants out on the water via coach boats or designated water boats.

As a new initiative for coaches, the regatta provided a chilly bag bottle holder for 12 bottles for each coach to enable them to carry extra water for them and the sailors out on the course.



- ✓ Install, or make available, water filtration systems in the boat park.

Six filtered water refilling stations were set up in the boat park and regatta venue, refilled by the Green Team during the day with a special hose and filter. The hose was metered to monitor water usage, but unfortunately the meter failed half-way through the regatta when the filter fell into a water station. Accordingly, we have estimated how much plastic was reduced by refilling water bottles as follows:

402 sailors + 132 coaches + 150 volunteers = 684 people x average 2 bottles per day x 18 days = 24,624 plastic water bottles for the main period of the event from 22 November to 9 December. However, sailors started arriving in October and the first water filter stations were installed on 25 October, so assuming an average of 400 water bottles per day for the early arrivals x 29 days = 11,600 bottles; total of 36,224 single use water bottles saved. We communicated this estimate via the APP to show the sailors and coaches the effect of not using single use water bottles.



Water Filter Stations - Three of these water stations remain at Akarana Yacht Club for use at future regattas.

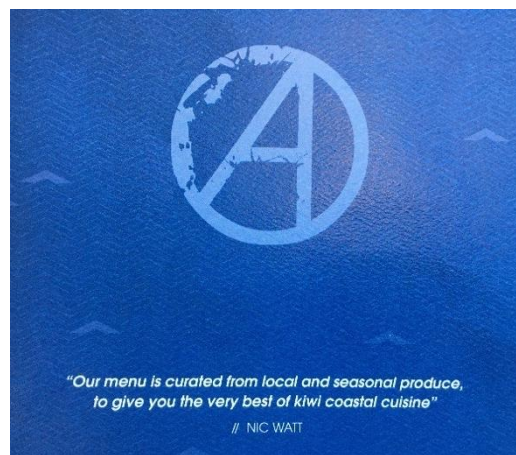
8. Sustainable Food Options

- ✓ Work with catering company to offer locally sourced or organic foods.

The new Akarana Eatery has opened with a menu that is listed as “curated from local and seasonal produce” and includes organic items. They purchase predominantly from New Zealand sources in the natural environment they are produced and encourage as little plastic packaging as possible. Bulk goods are purchased from local Gilmours.

Pita Pit was contracted to provide free lunches for volunteers and for others to purchase. They have a strong sustainability ethos:

➔ <https://pitapit.co.nz/sustainability>



Printed on the back of the Akarana Eatery menu

- ✓ Ensure that all seafood is sustainably sourced.

Akarana Eatery purchases their seafood from Kiwi Fish and Big Glory Bay, who are quality controlled suppliers abiding by sustainable fishing quotas.

- ✓ Offer vegetarian alternatives to lower your menu’s carbon footprint.

There are vegetarian options on the Akarana Eatery menu, and Pita Pit also offered vegetarian choices. For the after sailing snacks for sailors and coaches we offered vegetarian and vegan options.



Pita Pit menu

9. Responsible Dinnerware

- ✓ All single-use dinnerware is recyclable or compostable. No styrofoam.

Akarana Eatery used crockery most of the time, but if takeaway service was provided, they supplied compostable Allpress Coffee cups and lids and compostable bowls for salads etc.

Pita Pit was onsite for volunteer lunches and anyone else who wished to buy lunch. Their pita pockets were wrapped in a compostable wrapper, biscuits provided in a paper bag, and smoothies in a recyclable plastic cup with compostable straw.

- ✓ Eliminate all straws.

Akarana Eatery has committed to not using plastic straws in the café and use metal straws in cocktails, and we have not provided straws anywhere at the venue. Pita Pit did use straws for their smoothies which come in a cup with a hole in the top. However, these were compostable straws, not plastic, and we endeavoured to make sure they were processed through the compost bins, putting a sample of the straw on the compost bin display board and a sample of the cup on the recycling bin.

- ✓ Eliminate all plastic single-use dinnerware, including plates, cups and cutlery.

We did not provide any plastic single-use dinnerware for our functions. At the BBQs if needed we used compostable plates and wooden forks, but mainly compostable unbleached New Zealand manufactured serviettes. Opening ceremony caterers Puha & Pakeha provided compostable plates for service, and drinks from the Heke keg beer were served in compostable cups. Dinner at the closing ceremony was catered by the Great Catering Company and used compostable dinnerware.

To reduce single use coffee cups, in the registration packs for all sailors, coaches, race management and volunteers was a coffee keep cup that they were encouraged to bring to the plunger coffee stations and the Akarana Café coffee caravan. If someone did not have a keep cup on them there were crockery cups or compostable Allpress coffee cups available.



Regatta keep cup

Unfortunately, there were some single use takeaway plastic containers that came through the rubbish stations, brought onsite by sailors or visitors. These were recycled if made of an appropriate No1 or 2 type of plastic and not too contaminated. We took the opportunity to make a post on the forum about sorting out these containers and asking them to place them in the correct bins.

Waste Reduction

10. Recycling

- ✓ Ensure 1:1 ratio of Trash to Recycling bins.

At the regatta venue we set up seven waste stations, each containing a 120L Yellow recycling bin, Green compost bin and Red rubbish bin for all other rubbish, plus some additional compost bins for the Opening and Closing Ceremonies. A consolidation point was established with 660L recycling and rubbish bins and 3 x 240L compost bins for emptying these bins into, where trucks from our waste contractor Supertrash could have easy access for collection, safely away from competitors.



Rubbish consolidation station in the carpark

- ✓ Divert 50% of all waste from entering the landfill.

We established a great relationship with waste contractor Supertrash to manage our waste. Promoting recycling and composting (as well as minimizing waste) was the way to divert waste from landfill. In the early stages of the event landfill waste was high, due to a lot of packaging materials from unloading the containers and the sail number stickers backing. Luckily for this regatta 33 new 49ers were purchased from Mackay Boats in Auckland, so they could be trailered to the venue with no packaging rather than shipped in from overseas, significantly reducing packaging for our event.

As the event progressed, the ratio of rubbish decreased and composting increased with functions we held. Our measure of waste reported by Supertrash showed:

Compost	5520 L	21%
Recycling	9240 L	36%
Landfill Rubbish	<u>11220 L</u>	<u>43%</u>
Total	25980 L	100%

We still found that unfortunately a few people bought their trash from home or off marina boats which increased the quantity of rubbish collected, and we had to lock the large consolidation bins to prevent them being used by builders, marina users, and Akarana Eatery staff who went to the wrong waste station.

- ✓ Hand out bags to competitors to encourage recycling on the water.

We did not wish to hand out a plastic bag to sailors to place their rubbish in, but communicated how to deal with rubbish on the water - by placing it back in their lunch bags, giving it to their coaches, and bringing back to the ramp or OBC to be placed in the correct bins.

11. Compost

- ✓ Ensure 1:3 ratio of Trash to Compost bins.

At each waste station throughout the boat park we had one compost bin for every rubbish and recycling bin. However, at our functions and for the volunteer BBQs we had more compost bins and brought in the large 240L compost bins for the disposable plates and food scraps.

- ✓ Divert all appropriate food scraps from landfill.

The division of Supertrash for the composting business is called Wecompost. Their green bins stood out and were clearly visible at all waste stations. The compost bins were emptied every Wednesday to start with and more often when needed after functions. Compost is taken to their processing plant in Tuakau, where they process the waste to compost and distribute to local farmers and growers.

→ <https://wecompost.co.nz>



Akarana Eatery also use Wecompost for their waste, so every effort was made to ensure all food scraps from the regatta venue were diverted from landfill.

12. Trash Free Regatta

- ✓ Provide guidance for ensuring stickers stay on.

We have attempted to eliminate stickers wherever possible. A decision was made that we would not place sponsor or event stickers on the boat hulls. Boat number stickers on the front of the hull was a safety issue so an upturned boat could be identified and so we made them large enough to be identification for visibility for media coverage. These were distributed at measurement / registration with instructions of where to apply. These were printed by Benefitz, a printing company used in the past for regattas such as Youth Worlds 2016, on a biodegradable vinyl which is difficult to come off and should stay on in the water for the course of the regatta.

- ✓ Have a team to apply stickers to hulls in the proper way to ensure no stickers come off.

On the whole, the sailors at this regatta are experienced long-time campaigners who are adept at applying stickers and would apply them carefully to ensure there is no uneven surface and they would not start coming off while competing. We did not use a team of people to apply the stickers, as we felt that these sailors would be more experienced and careful in this process than newly trained volunteers.

✓ Organize a beach or boatyard cleanup with volunteers and/or participants.

BEACH CLEAN AND GHOST FISHING - 1ST SEPTEMBER

Our green team kicked off with the first environmental event early on with a beach clean-up of Okahu Bay based at the Akarana Sailing Club. In addition to a shore clean-up, we hosted a team from Ghost Fishing, an organisation based in Wellington who dive to collect rubbish on the ocean floor. We accommodated them in boats at Orakei Marina. Sea Cleaners also attended the event and took all the waste away to be measured and processed. We advertised the event to the local community and sailing community and had a great turn out of over 100 people involved, including members of the local iwi Ngati Whatua Orakei, who blessed the event and gave us an understanding of the history of the area and the importance of the health of the harbour to the local Maori. We followed with a BBQ to thank the participants and encourage community interaction, while the Ghost Fishing team provided a display and teaching opportunity for the wildlife collected with the rubbish items from the sea floor. The event was covered by TV news teams, providing a great opportunity to communicate to the wider community the importance of looking after our ocean environment.

➔ <https://yachtingnz.org.nz/news/community-gathers-remove-ghosts-past>



Sea Cleaners loading up the rubbish found in the bay



Divers Peter Burling, Blair Tuke and Ghost Fishing member inspecting rubbish found in the bay

BOAT PARK CLEAN-UP - 22ND NOVEMBER

We wanted to hold another event involving the sailors and coaches attending the regatta, encouraging them to look after the environment they sail in. We held a welcoming function where we introduced the Green Team and highlighted some of the key points of our sustainability plan, had a presentation from Bianca Cook from Turn the Tide on Plastic about her Volvo sustainability initiatives, an introduction from Ecostore about their sustainable products, and followed with a boat park clean-up. We felt it was important to concentrate on a clean boat park, as this is one of the worst areas where sailors litter, and where all litter washes into the ocean when it rains or there is strong wind. We followed with a BBQ, an opportunity to welcome the sailors and coaches and communicate further about our sustainability initiatives.



Rubbish at boat park clean-up



BBQ at boat park clean-up

- ✓ Have litter grab sticks available for coach boats so they can also easily extract floating debris whilst on the water.

It was considered a hazard to have additional items in the bottom of coach boats, as coaches could trip up moving over them. Instead, at coaches briefing we asked coaches to pick up any debris they saw in the water while out in the harbour.

13. Eliminate Single-use Bags

- ✓ Use reusable bags while shopping for event.

New Zealand no longer allows retailers to use single use plastic bags and taking your reusable bag to shop is part of the norm now. This was done whenever possible.

Food was ordered in bulk where possible to reduce the packaging and vehicle movements, eg. the bulk sausages and bacon were supplied from local Hellers in Wiri, collected once prior to the Oceania regatta. Local bread shop Bakers Delight Remuera was used for our bread and buns purchases for the breakfast butties and after sailing food. Bakers Delight packaged it all in paper bags and bread boxes so there was no plastic for our bread supply, except for a few packets of gluten free bread / buns.

Some of our food purchases were ordered by Akarana Eatery staff and delivered by Gilmours and we requested them to package it in boxes with minimal plastic.



Purchasing supplies from Gilmours



Bread from Bakers Delight – no plastic bags!

- ✓ Offer reusable bags to hold event documents.

With the use of the APP and electronic communication, there was no need to distribute paper event documents, and a decision was made not to hand out pamphlets or advertising materials to reduce items that would end up in landfill. Registration giveaway items such as sunscreen, water bottle, coffee keep cup, beer tickets for volunteers, etc were placed inside the lunch bag they were given, eliminating a need for a bag.

- ✓ Ensure lunch bags are reusable, recyclable, or compostable.

All sailors, coaches, race management and volunteers were provided with a regatta chilly bag for lunches. Sailors and coaches were encouraged to bring their food in reusable containers. Volunteer lunches are Pita Pit wraps, which are provided in compostable paper wrapping.



Regatta lunch chilly bag

14. Good Waste Management

- ✓ Ensure that Recycling bins are placed adjacent to all trash bins.

Every waste station had a recycling bin alongside the trash bins and compost bin. When a member of the Green Team was emptying all the bins, we searched through them to ensure rubbish was in the right bin, so when they were emptied into the bulk bins at the consolidation point it was correct and compost / recycling were not contaminated by landfill items.

- ✓ Ensure compost/food waste bins are in suitable areas.

120L compost bins were placed all around the boat park at a waste station with the other bins, so it would be easy for a sailor or helper to find a bin. Additional large 240L compost bins were provided close to the location when we held a function and a large compost bin was placed next to the Pita Pit caravan and BBQ.

- ✓ Educate staff and participants about what can be recycled versus composted or sent to a landfill.

In an attempt to get the participants to place their rubbish in the correct bin – not an easy task - samples of the types of items that should be placed in each bin were displayed on the boards above the bins.

At our welcome BBQ and boat park clean-up we showed the sailors again what types of items could be recycled or composted. At the volunteers evening we told them about our sustainability goals and showed them also our compost, recycling and rubbish measures.

Over the period of the regatta we noticed improvement in how rubbish was disposed of as the message got across; the learnings happened and there was less sorting to be done!



Recycling bin back board



Highlighting some of the key points of our sustainability plan – a very serious matter!!

15. Legacy

- ✓ Create a plan ahead of the event for destination of unwanted event/team clothing to be donated for secondary use.

While planning for the regatta, a decision was made not to provide regatta t-shirts to sailors and coaches, as these are often not wanted and never used. Volunteer t-shirts were provided, made from organic cotton rather than polyesters, and at the end of the regatta we asked any volunteers who did not want to keep their shirts to return them to a box in the boat shed for us to collect and pass on as giveaways to sailors in the New Navigator Program, a program run by Akarana for Auckland children who would never otherwise have the opportunity to try sailing.

- ✓ Provide opportunities for sailors / teams to donate functioning sailing equipment for redistribution for further use.

Using the facebook forum we asked sailors to bring in any unwanted / recyclable sailing clothing and equipment to a box in the boat shed. Any donated items were distributed by Akarana Yacht Club to young sailors.

We also asked sailors to bring in any unopened food items when they were leaving their accommodation to return overseas and received four full baskets of food which we delivered to the Auckland City Mission.

- ✓ Provide initiatives for sailors / spectators to bring equipment with them to be recycled such as sails, wetsuits.

This is an international regatta accessed only by sea or plane, which limits the ability of visiting sailors to bring anything except what they really need. So we asked the New Zealand entrants to bring any gear from home which they no longer need, to be donated to younger Kiwi sailors.



Venue Management

16. Responsible Signage

- ✓ Make sure all waste bins are clearly marked RECYCLING, COMPOST or TRASH.

Supertrash is the waste company we contracted to for handling our waste at the Worlds. They provided us with the bins which were clearly labeled recycling, compost or rubbish, and back boards were attached with further information about what to place in the bin. We also made laminated sheets of photos to place on top of the bin lid. Providing signage was a new area for Supertrash and it was a learning process for the best way to display the information which got better and better as the regatta progressed.

We were able to pass these learnings on to Supertrash for them to pass on to future clients.



Rubbish station in the boat park

- ✓ Do not date branding if it can be used again.

There was a need to have some branding created that would be specific to this event only, however much of our sponsor branding was reusable, including umbrellas, bean bags, archway and gazebos.

Existing previously used ATEED and MBIE mesh was placed on the fencing and can be used again at future ATEED and MBIE sponsored events, to avoid printing our own. This mesh was installed not with plastic ties, but with re-useable bungy cords.

Event flags were dated but are a necessary form of communication to the community instead of paper flyers.

Country flags displayed on the beach front were reused from Youth Worlds 2016.

- ✓ Do not use PVC for branding use recyclable PET.

Network Visuals was used for our fabric and banner printing. They advised us of the best products to use for the environment:

Flag fabric – Pole Banners, Custom Stage, Fabric Media Backdrops

Digital textile printing and in particular digital dye-sublimation printing provides less environmental impact than other printing methods. Digital printing greatly reduces water wastage and the use of water based organic dyes cause no harmful emissions and the inks are biodegradable. The polyester fabrics and papers are all recyclable. The water based inks we use have no Volatile Organic Compounds (VOC's). VOC's are organic chemical compounds that can cause health problems and damage the environment. VOC's are often in hard solvent based inks. The inks used in our dye sublimation printing are water based therefore they don't produce the Volatile Organic Compounds.

The base graphic substrate is polyester which is recyclable and our premium fabric ensures a colour fast and vibrant result as well as optimum ink penetration. It is bio-degradable and leaves very little residue in the environment (unlike PVC and other traditional methods).

PVC free PVC Banners – PVC Towers, Branded Event Walls

In simple terms the PVC Free banners is exactly that, there are no harmful ingredients that will give off any nasty gasses. The coating of the banner will breakdown by up to 70% in the first 45 days of being buried in the ground and what you are left with is a thin layer of base Polyester film. At o time are any toxins released when the banner is put into waste which means no harmful gases and no pollutants released into the air.

17. Promote Alternative Transportation

- ✓ Provide secure bike racks to promote cycling.

North Shore Scaffolding were hired to bring in racks for 200+ bikes at the sailing venue inside the boat park compound. Bike racks were also erected at OBC so coaches could ride between the boat park and OBC where their ribs were berthed. We encouraged sailors and coaches (and volunteers) via the APP and forums to bring bikes with them, and communicated to them the requirement to wear helmets, the need to bring a bike lock for security, information on where they could hire a bike if required, and a link to cycling maps for Auckland.

→ <https://at.govt.nz/cycling-walking/cycle-walking-maps>

Cycling was the main transport option for many sailors and many volunteers also.



Bike rack in the boat park

- ✓ Encourage public transportation, carpool or hybrid cars to/from event in all print/online communications.

On the APP and via the forum we advised of the Tamaki Link TMK bus which drives past the venue and links to the wider Auckland public transport network of buses, trains and ferries. We gave them the link for information on public transport. → <https://at.govt.nz> The sailors and volunteers were advised that there was limited parking at the regatta venue and recommended to carpool or use their bikes. Many teams had one or two vehicles between them all and carpoled to the venue.

- ✓ Give a parking discount or VIP parking spots for participants who carpool or drive hybrids.

Due to area constraints we could not provide carparks at the venue for participants. The limited parking spots were saved for key regatta staff and race management, ambulance, and regatta vehicles such as the Hyundai vans used to carpool and shuttle jury, measurers etc to their accommodation and to shuttle coaches to and from OBC. Any other available parks were for the venue and Akarana Eatery staff and building contractors and beyond our control.



Hyundai shuttle van

18. Sustainable Energy Sources

- ✓ Create a power plan in advance of the event.

Hyundai Marine Sports Centre is a brand new state of the art building and accordingly has a new power system connected to the national grid. The new yacht club is intending to use solar power in the future but this is not set up yet. Our power needs would be well met by their system and there was no need to provide for additional support in this area.

- ✓ Prioritize grid power over temporary generation.

We did not need and did not arrange any temporary power generation; it was thought that grid power at the venue would be sufficient and it proved to be so.

- ✓ If generators needed, use hybrid with battery storage.

Generators were not needed at the venue for our regatta purposes. However, Sky Sport did bring their own generator, which they required to ensure back up power for their production in the event of a power failure. We had no control over this supply.

19. Runoff Reduction

- ✓ Mark all surface water drains.

The Green Team took this as an opportunity to create a legacy for the whole marina area, involving Auckland Outboard Boating Club (24 drains) and Orakei Marina (6 drains) in the project also, in addition to our 23 drains (in total 53 drains protected). We sourced blue fish from Fish on Drains by Ecobluefish in Taranaki, made from polycarbonate which will not leach any contaminants into the waterways. During installation, any small filings were swept up by shovel & broom and disposed of to ensure no dust went into the drain. The blue fish have the words “drains only for rain” and are a visual reminder that only water should go down the drains to protect marine life in the Waitemata Harbour.



- ✓ Ensure no refueling for plant or vehicles and generators are located 10m away from drains.

There are no on-site refueling facilities at the venue. Orakei Marina and OBC have refueling facilities, covered within their own safe management practices.

- ✓ Ensure nothing from caterers, sailors, contractors is poured into any drains except uncontaminated water.

Participants were advised of our “water only down the drains” goal (see above). The Akarana Eatery has an A grade certificate for food preparation and does not pour anything into drains.

20. Carbon Balancing

- ✓ Conduct an energy audit of your event.

Our largest contributor to carbon emissions was air travel, being a regatta held in the Southern Hemisphere not assessable by vehicle or ferry. Following a presentation attended by Ben Remocker (Manager 49er & Nacra17 classes) by Starboard Co about a mangrove planting program in the Thor Heyerdahl Climate Park in Myanmar, Ben contacted them for information and assistance in quantifying the travel emissions of the sailors and officials to this regatta. He forwarded a schedule of 424 flights to be undertaken by sailors and officials to Auckland for the regatta and the CO2 emissions were calculated as 1614.46 tons of CO2. However, the final numbers of sailors, coaches, officials and media travelling internationally to Auckland was 489. This would equate to approximately 1861.96 tonnes of CO2.

Freight of containers to Auckland is also a major emission item. There were 135 container movements over 141,295km resulting in 128.87 tonnes of CO2.

Fuel usage by the large number of RIBs on the water was another major contributor to carbon emissions, estimated at 182.74 tonnes.

Summary of emissions:	CO2 tonnes:
Air travel	1861.96
Container movements	128.87
Boat fuel usage	182.74

- ✓ Invest, find sponsorship, or collect donations to offset all or part of your event's carbon dioxide emissions.

We did not find an outside sponsor to offset all our carbon dioxide emissions, but we did ask the sailors and coaches to contribute towards this. We placed a labeled container in the reception area for sailors to make a donation if they wished to offset some of their emissions, and encouraging them to give us their NZ coins when they were leaving the country, with the aim of using any donations to purchase trees for planting by DOC on Motuihe Island in the Waitemata Harbour. We also "fined" sailors a donation to the box if they failed to collect and take out their tracker to the race course. A total of \$52 was donated to purchase trees for planting.

- ✓ Direct participants to a platform where they can calculate and balance their carbon footprint.

Via the APP and the forum we directed the sailors and coaches to a website where you can calculate emissions for your household and transport activities. They could then through the site purchase carbon offsets to offset those emissions:

➔ <https://toitu.co.nz/calculators>

Race Management

21. Toxic-free Cleaning

- ✓ Eliminate the use of any harmful cleaning products at event site.

Akarana Eatery at HMSC use an organic range of cleaning products supplied by Ecolab. Commercial cleaners at the site are contracted to use environmentally friendly products.

For our BBQ and volunteer use, we purchased Ecostore dishwashing liquid. At our sailors and coaches welcome BBQ and boat park clean-up we had a presentation from Ecostore showing their eco-friendly products and they gave away product as prizes.

- ✓ Mandate a “water only washdown” protocol for boats at your event.

Our sustainability section on the APP had a section “Water Only Wash Down” showing the blue fish and requesting that no cleaning products were used when washing boats or equipment. We also pushed it via the sailors’ 49er and Nacra forums. A reminder notification was sent as the regatta started.

We arranged waterblasting of the coach and race management RIBs so no chemicals were used in their cleaning process.



- ✓ Ensure hoses have fittings to enable them to be turned off at the user end of the pipe.

A system was set up with a large blue water pipe with hoses attached for boat washing. All the hoses had fittings on them that could be twisted to turn off the water supply at the user end of the pipe.



22. Oil Spill Prevention

- ✓ Provide all motorboats with one bilge sponge/sock and one fueling spill pad or ensure there is access to this if one refueling station.

Auckland Outboard Boating Club (OBC) worked with us to provide a single refueling area for the coach boats, media boats and smaller race management craft. This area is at the end of B pier at OBC at their fuel pump dock. OBC has a container of spill pads and booms immediately to hand. We sighted OBC's policy for fueling and spill prevention. Coaches and race management volunteers stored their boats overnight in OBC marina and refueled there.

There is a procedure in place at OBC for any major oil spill to be instantly notified to Allied who will activate their emergency plans.

For the larger race management craft, any diesel-powered vessels can be refueled at the Orakei Marina, where spill procedures are in place, and any petrol-powered vessels needed to go to Westhaven or one of the other marinas in the Waitemata Harbour, managed under their refueling systems.



- ✓ Create “safe refueling areas” and ensure proper training to all staff.

OBC has Blue Flag accreditation and accordingly has measures in place to ensure the dock is a safe refueling area. Trained OBC and Worlds volunteers were available for refueling race management boats and to assist coaches with refueling.

At their briefings, coaches and race management volunteers were advised of refueling procedures, location of spill pads and what to do in the event of an oil spill.

- ✓ Coordinate with nearby organisations or marinas to have emergency plan in case of large oil spill emergency.

Both OBC and Orakei Marina have emergency policies and procedures in place for immediate action in the event of a large oil spill emergency. We reviewed policies and procedures and put in place the following plans at the Akarana Marine Sports Centre: Should anything happen in Okahu Bay boat ramp, immediately access Orakei Marina spill kits and action plans. When decanting petrol tanks at the boat ramp at the end of the regatta for boats to be loaded into their containers we provided spill pads in case of spillage.

- ✓ Ensure no dispersants are used by stakeholders on fuel spill.

OBC would not use dispersants on a fuel spill. Fuel suppliers Allied would instigate an action plan which is beyond our control and in accordance with Maritime requirements.

23. Maintenance

- ✓ Ensure all fiberglass sanding/fairing be contained and collected and designate a secure and enclosed location for all boat maintenance.

There is a large boat shed under the new Akarana building, and the front third of it was set up for a Mackay Boats workshop and sailor boat maintenance area. Initially it was used by sailors to assemble their new yachts purchased from and delivered by Mackay Boats. Then as the training and regattas progressed it became the repair workshop for the inevitable damages that occur! As there was power there for electric equipment to be used, it meant all major sanding was done in the boat shed, enabling any debris to be contained and collected on the concrete floor. There was a shovel and broom provided in the boat shed to sweep up any filings.

In addition, John Olds (Oldsie) was onsite in his workshop to assist with boat repairs and helping build items for the regatta, and his is experienced at NZ regattas and cleans up after any repair work has been done at his site.



Sailors repairing a wing and a mast in the boat shed

- ✓ Ensure waste facilities are available for hazardous waste substances.

We discussed with our waste contractors Supertrash what items they would consider to be hazardous waste and would not like to see put into the general rubbish. Supertrash suggested batteries, electronics, paint, dangerous chemicals etc would be good to defer from the red bins. As Akarana Marine Sports Trust has not yet established a secure area (although they are planning to in the medium term), we provided a box labelled HAZARDOUS WASTE in the boat shed (wanting to keep it separate from the main rubbish consolidation area to avoid contamination) and advised everyone via the APP that it was available.



24. Efficient Power Boats

- ✓ Prioritise fuel-efficient rigid inflatable boats (RIBs) instead of fiberglass where possible.

At the regatta there was a fleet of 31 race management (including safety), 9 media and 132 coach boats. All of these except for the four start boats (yachts) and one aluminium safety boat were RIB's.

There were some spectator boats out on the course that were not official boats, and not all RIBs.

- ✓ Prioritise sail / electric support boats.

Of our 31 race management craft, 4 (start boats) were yachts. We arranged for these and other large vessels to be berthed overnight at Orakei Marina to minimise motoring time and reduce the need for the boat owners to travel by vehicle to the venue every day.

- ✓ Require anchored boats on the course to turn off engines instead of idling.

Normally the only anchored boats on the course would be race management start and finish boats, especially considering some of the courses were in a no anchoring zone due to the power cable in the harbour and shipping lanes. Chairman of the Race Committee John Parrish instructed his team to turn off their engines instead of idling when they were anchored.

- ✓ Look to maximise sharing of support boats on the water whilst providing suitable safety cover.

At a Worlds event such as this where Olympic country qualification and sailor selection is happening for most countries, most teams have a coach and would not consider sharing a coach boat with their competition. We had 201 boats entered in the regatta and 132 registered coaches, so there was some sharing of coaches within countries but not between countries. Also, the Nacra and 49er boats are exceedingly dangerous and the need to have a maximum number of safety boats, including race management and coaches taking on that role while on the water, is paramount. The coach boats qualified as safety boats, therefore reducing the number of extra specific safety boats needed.



Coach boats berthed at OBC

25. Wildlife and Habitat Protection

- ✓ Integrate key marine wildlife information into your event and notify participants in advance of any protocols around wildlife encounters (Wildlife Disruption Prevention Plan).

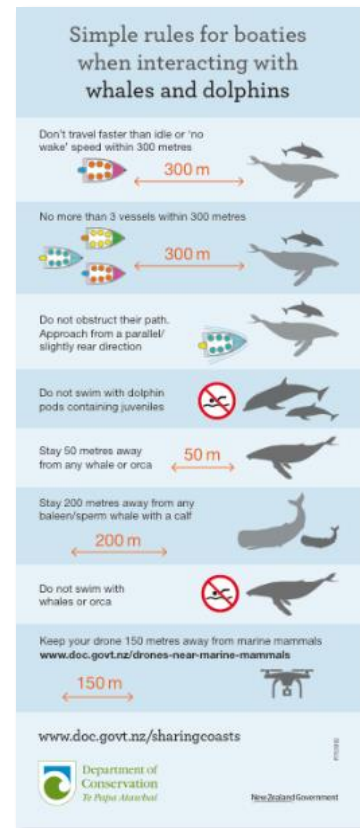
Prior to the event we contacted the NZ Department of Conservation for educational resources that we could display during the regatta. They were able to provide us with a range of posters which we displayed in two areas of the venue. The posters provided the participants information about NZ wildlife they might encounter and numbers to call if they had any concerns or to report any sightings.



As part of the early registration process, in the reception office we displayed two further posters so all coaches and participants had to be informed to stay away from Auckland's resident Sea Leopard "Owha" who is currently living in our local marinas, with information on what to do if they encountered the animal, and who to report any sightings to.

They were also shown a poster explaining how to manoeuvre boats and interact around any sea mammals they might encounter.

Akarena Sailing Club have asked us to leave these educational resources on display at the end of the regatta as they were so well received by junior sailors coming to the club, so they will be available for education for future sailors as well.



✓ Prepare participants to report collisions, injured wildlife or damaged habitat.

The posters displayed during the event explained the process of reporting sightings and interactions with wild animals. The following incident occurred on Day 3, Bravo course:

1500 hours one of the patrol boats on the course called in to the race committee boat to advise they had an injured marine mammal beside them. The race official on board asked for further information. The boat advised that a seal had approached their boat and had appeared to be swimming slowly and they were concerned it was injured.

We were able to use the information given by the NZ Department of Conservation to ascertain the seal was likely to be ok and advise that at this stage the correct procedure was not to interact or disturb the seal. The boat observed the seal and called back to say that all was ok. On board we had the contact details for the Department of Conservation and would have been able to report the incident if necessary.

✓ Provide authorities with data collecting any relevant information

We also advised of the process for reporting sightings of Orca in the harbour.

If you see orca (or have a whale or dolphin stranding) please call 0800 SEE ORCA (0800 733 6722)



The Orca Research Trust is located on the Tutukaka Coast, Northland, New Zealand.



Orca in front of Research Centre (the green building on the hill), New Zealand. Front to back orca are: Rua, Yin, Puffa.

Extra Information & Achievements

We instigated a number of additional initiatives and processes to further advance our sustainability for the regatta:

- **Bamboo Flag Poles**

Bamboo flag poles were used to support the country flags for our entrants, and the flags were tied on with cord rather than using plastic cable ties.

→ <http://sidelineapp.com/events/49er-49fx-nacra17-oceania-championship/regatta-news/running-sustainability-up-the-flag-pole>



- **Reef Safe Sunscreen**

A parent of one of the Kiwi Nacra sailors makes and retails “Goodbye Ouch” sunscreen, a natural reef safe product. He kindly donated sunscreen for us to put in the sailors, coaches, race management and volunteer packs for use at the regatta.

→ www.goodbye.co.nz



- **A Legacy for New Zealand Yacht Clubs**

A goal following on from the end of the 2019 49er, 49erFX and Nacra17 World Championships is to create a template for Yachting New Zealand to have available for yacht clubs around New Zealand, to provide them with guidelines for how to hold sustainable regattas in the future.

- **20 ltr boat tie down weights**

Plastics NZ provided us with 20 litre plastic containers made from recycled materials which could be filled with water and used with tie downs to hold the boats in the boat park in strong winds. These were taken back and ground down for reuse in another specific cable project.



Summary

It has been a very rewarding time for the Green Team and regatta organisers in undertaking this challenge. There has been a big learning curve in how to communicate the message of reducing your impact on the environment and we have created a legacy of protocols for future sailing regattas, and other non-sailing events. A template for yacht clubs throughout New Zealand will be created in conjunction with Yachting New Zealand.

Publicity of sustainability measures via media and our APP reached a wide audience and was very well received and acknowledged by participants and others. A big positive from our work was seeing the improvement in uptake of appropriate rubbish disposal as the regatta progressed. Apparently, the boat park at the end of the regatta was the cleanest any of our Kiwi sailors had ever seen at an international regatta (still a serious clean-up required though!). And while sailors are now regularly getting these messages at regattas around the world, this was the first time many of our volunteers had experienced the initiatives we were doing, so a big step in this direction.

The issue of single use bottles is still a major concern, as despite all our efforts in providing a metal bottle, water re-filling stations, not selling any plastic water bottles on site etc, there were still a lot of plastic bottles disposed of the last day of the regatta. This is something that World Sailing and all regatta organisers will have to concentrate on in future for sailors to learn to change their ways.

An external moderator Delayne Salthouse monitored our progress throughout the planning and holding the event and offered invaluable support and guidance.

We were very proud of meeting our goal and achieving Platinum Status for our regatta.

