



# SUSTAINABILITY REPORT



USA 2018  
Youth  
Sailing World  
Championships

# TABLE OF CONTENTS

Foreword from World Sailing's Sustainability Programme Manager .....	3
Statement by the Commodore of Corpus Christi Yacht Club .....	4
Statement from Co-Chairman of the Green Team .....	5
Profile of the 2018 Youth Sailing World Championships .....	6
Venue .....	7
Report Overview .....	8
Key Achievements .....	9
<b>Sustainability Strategy .....</b>	<b>10</b>
▶ 1.1 Strategy Assessment .....	11
▶ 1.2 Sustainability Goals .....	11
▶ 1.3 Stakeholder Structure .....	12
▶ 1.4 Governance & Organizational Structure .....	14
▶ 1.5 Sustainability Media Coverage .....	15
<b>Environmental Impact .....</b>	<b>16</b>
▶ 2.1 No Single-Use Plastic Water Bottle Policy .....	17
▶ 2.2 Zero Single-Use Plastic in all Venues and Race Committee Boats .....	20
▶ 2.3 Waste Management: Composting, Recycling, Landfill .....	24
▶ 2.4 Reduction of Paper .....	27
▶ 2.5 Support Boats .....	29
▶ 2.6 Fuel Usage .....	30
▶ 2.7 Oil Spill Prevention .....	31
▶ 2.8 Energy Usage .....	31
▶ 2.9 Shipping of Boats .....	32
▶ 2.10 Carbon Emissions .....	33
▶ 2.11 Other Measures Taken .....	35
<b>Behavioral Habits .....</b>	<b>37</b>
▶ 3.1 Sustainability Survey .....	38
▶ 3.2 Clean Seas Campaign Pledge .....	40
▶ 3.3 Sustainability Award .....	41

# TABLE OF CONTENTS (Cont.)

<b>Education Programs</b> .....	<b>42</b>
▶ 4.1 Opening Ceremony: Dr. Sylvia Earle .....	43
▶ 4.2 Beach Clean Up .....	44
▶ 4.3 Wildlife Plan .....	45
▶ 4.4 Movie Night .....	46
▶ 4.5 Conservation Booths .....	47
▶ 4.6 Art Initiatives .....	48
▶ 4.7 Solar-Powered Compost Machine .....	50
▶ 4.8 Yacht Club Staff Education .....	51
<b>Gender/Nationality Representation</b> .....	<b>52</b>
▶ 5.1 Gender Representation .....	53
▶ 5.2 Emerging Nations .....	54
<b>Legacy Programs</b> .....	<b>55</b>
▶ 6.1 Texas Sailing Association (TSA) .....	56
▶ 6.2 Corpus Christi Sustainability Plan for Future Events .....	56
▶ 6.3 Sustainability Report .....	56
<b>APPENDIX I: The Green Team</b> .....	<b>57</b>
<b>APPENDIX II: Sustainability Partners</b> .....	<b>58</b>
<b>APPENDIX III: Calculations</b> .....	<b>59</b>
<b>APPENDIX IV: Eco-Product Information</b> .....	<b>60</b>
<b>APPENDIX V: Estimated daily fuel usage from all official boats</b> .....	<b>61</b>
<b>APPENDIX VI: Travel Emissions</b> .....	<b>62</b>
<b>APPENDIX VII: Sustainability Surveys</b> .....	<b>66</b>
<b>APPENDIX VIII: Art Initiatives</b> .....	<b>79</b>
<b>APPENDIX IX: List of Figures</b> .....	<b>80</b>
<b>APPENDIX X: GRI Index</b> .....	<b>81</b>
<b>Thank You</b> .....	<b>83</b>
<b>Publisher and authors</b> .....	<b>84</b>



## FOREWORD FROM WORLD SAILING'S SUSTAINABILITY PROGRAMME MANAGER

The Corpus Christi Youth Sailing World Championships marks a key step for World Sailing in its delivery of its Sustainability Agenda 2030 which sets out sustainability targets across the sport of sailing.

The Youth Worlds is always a special event bringing youth, enthusiasm and exciting competition from all corners of the globe and this year was no exception with 382 sailors from 66 nations.

For this 48th edition, an ocean conservation and sustainability theme was adopted for the very first time. A variety of activities aimed at engaging athletes and coaches complimented the competitive action on the water and a top agenda item was the issue of single-use plastic. The recently announced collaboration between World Sailing, the International Olympic Committee and the United Nations Environment Program will result in this issue being tackled at sailing events at the highest level.

Undoubtedly, lifetime memories are created at the Youth Worlds and I very much hope that the key sustainability messages will have influenced our sailors at an early juncture in their sailing careers.

As World Sailing is certified to ISO 20121 – a specification for sustainable events, we will continually improve on the significant progress that has been made and endeavor to replicate at our future events.

I, as well as many of the sailors, left the event feeling inspired and we pledge to work with the sailors as they develop into the famous faces of the future, enabling them to become guardians of the ocean.

My thanks go to the Green Team for all their contributions, 11th Hour Racing for their valued support and of course to all the volunteers, athletes and coaches for making the event such a special occasion in the sailing calendar.

Dan Reading  
Sustainability Programme Manager  
World Sailing



# STATEMENT BY THE COMMODORE OF CORPUS CHRISTI YACHT CLUB

What a week! The 2018 Youth Sailing World Championships are over but what we learned and implemented will last a lifetime. The Corpus Christi Yacht Club was the proud sponsor of this Championship. Our decision to host this prestigious international event was driven by a desire to positively impact youth sailing, not only internationally, but locally. We knew that the Championships would be a massive undertaking for our Club and the City of Corpus Christi. We had over 500 sailors, coaches and families attend this event. There were over 350 volunteers. We ran over 110 races using 4 race courses over a week. We knew early on with this number of people on the water at any given time, our impact on our local waters would be significant. We realized that the Championships gave us a great opportunity to not only promote sailing but to also promote environmental stewardship. Under the leadership of Elizabeth Kratzig, we began to the process of making the 2018 Youth Sailing World Championships a green event.

It is one thing to want to make an event green; it is another thing entirely to actually make it green. The only way to be successful is to have partners, participants and volunteers buy in to the process. I am so proud of our partners who came together to create our Green Team (GT). Six months prior the Championship, 11th Hour Racing was named the Official Sustainability Partner of the Championships. The GT, led by Elizabeth Kratzig and Dr. David McKee, created a comprehensive sustainability program which touched every aspect of this event, from the hotel where the sailors stayed, food services, to the boat park, and out on the water. As a result of the GT's efforts, we made a significant, positive impact on our environment.

While the 2018 Youth Sailing World Championships lasted only a week, the lessons learned will last a lifetime. The lesson was simple. Make green choices to protect our most precious asset: our environment. **While the lesson is simple, implementing a green sustainability plan is not a static decision. It is a choice you must make every day. A conscious choice to limit your environmental footprint.** We hope that all participants and volunteers left the Championships thinking more about making good, green choices. As we promote our wonderful sport of sailing to our youth, we must also promote the responsible use and enjoyment of our environment, including our Oceans and Bays.

Again, thanks to all of the sailors, partners and volunteers who made the 2018 Youth Sailing World Championships a success.

Craig Henderson  
Commodore, Corpus Christi Yacht Club  
LOC & Host of the 2018 Youth Sailing World Championship



# STATEMENT FROM CO-CHAIRMAN OF THE GREEN TEAM

In 1991 I represented the Corpus Christi Yacht Club (CCYC) at the Youth Sailing World Championships in Scotland. I was thrilled when CCYC won the right to host the 2018 Youth Sailing World Championships (YSWC). Immediately, I wanted to be involved in making the regatta a success both on and off the water.

The most important task of CCYC, the local organizing committee was to hold a fair competition and a well-run, spectacular event. However, I believed that we could do more. We had a unique opportunity to use the YSWC as a platform to promote ocean conservation and sustainability to the sailors and community. With the support of the CCYC, I formed a volunteer Green Team (GT) for the event. Dr. David McKee, Professor Emeritus at Texas A&M University Corpus Christi, and I became co-chairs.

The Green Team began by outlining an operational plan to follow environmentally sustainable practices at the 2018 YSWC. We undertook to lead through example and encourage the participants to eliminate environmentally damaging practices such as disposing of plastics and other refuse into the bays and ocean. We significantly reduced the environmental impact of the event, diverting 89.8% of waste from landfill into recycling and composting, just short of being a zero-waste event.

The GT focused an immense amount of energy on incorporating educational initiatives in the regatta. For example, local conservation groups set up daily interactive presentations at the regatta. Our hope was that these young sailors would return home with new ideas and habits. It was equally important that the South Texas community benefit from the sustainability actions of the regatta; therefore, most of our informational and cultural initiatives were open to the public.

Every organizer running a sustainable event will face unique challenges. Challenges for CCYC included hydrating over 500 people in extremely hot, humid conditions; composting when the city had no compost facilities; making changes amid skepticism and apprehension; working with vendors who were chosen prior to the decision to run an environmentally friendly event; and more. There was no blueprint for us to follow. The 2018 YSWC was the first YSWC to include an environmental focus. We were truly breaking new ground.

To pass on the knowledge we learned, the GT created a Sustainability Event Plan for the City of Corpus Christi. We also published this sustainability report for World Sailing to use as a benchmark for future world championships and as a tool for future event planners. We learned an immense amount from organizing this championship and hope that others can benefit from our learnings.



The success of the 2018 YSWC and the sustainability initiatives were a direct result of the dedication and motivation of many people who volunteered their time. It was truly a team effort, beginning with the support of the regatta chair Sandi Carl, CCYC, and World Sailing. Dr. David McKee put together a talented and knowledgeable group of people for the Green Team. The City of Corpus Christi provided important local support. Our GT partners included numerous conservation groups and commercial sponsors. 11th Hour Racing, the official Sustainability Partner of the Championship, provided critical guidance and funding to offset costs. Finally, the GT goals could not have been achieved without the volunteers and the CCYC staff who were on the grounds working the event every day and committed to the sustainability goals of the 2018 YSWC.

We are proud of the many achievements made at the 2018 YSWC in Corpus Christi and are excited about the long-term positive effects that the YSWC sustainability actions have had on participants, organizers, volunteers, and the entire Gulf Coast community. At the same time, we are aware of areas needing improvement.

**This report illustrates our approach and activities to embed sustainability into the event, to provide lessons learned, and to inspire others to use sailing and sports to contribute to a better environmental home for future generations. We hope that all future Youth Sailing World Championships, as well as all regattas big and small, will embrace ocean conservation and sustainability initiatives in their events.**

Elizabeth Kratzig  
Green Team Co-Chairman  
2018 Youth Sailing World Championship Committee Volunteer

# PROFILE OF THE 2018 YOUTH SAILING WORLD CHAMPIONSHIPS

## About the Youth Sailing World Championships

The YSWC debuted in 1971 with 16 nations competing in Angelholm, Sweden in only 3 classes. Over four decades, 105 nations from Africa, Asia, Europe, Oceania, North, South and Central America have competed in the YSWC. The YSWC continues to expand and has become the world's leading championship for thousands of sailors ages 19 and under. Entry to the YSWC is limited to one boat per nation, per event, with highly competitive national qualification events taking place to decide who will have the honor of representing their nation.

## About the 2018 Youth Sailing World Championships

The 2018 YSWC was hosted by the CCYC, the local organizing committee—(LOC), and held in Corpus Christi, Texas from July 14-21st. A total of 382 sailors from 66 countries participated in the regatta, including athletes being helped by the World Sailing Emerging Nations program. Each sailor participated in one of nine different events: 420 boys, 420 girls, 29er boys, 29er girls, Nacra 15 open, Laser Radial boys, Laser Radial girls, RS:X boys and RS:X girls. Competitors were accompanied by 110 team leaders and coaches from their home countries. During the event, 267 volunteers were directly involved in the regatta on land and 119 conducted races on the water. Approximately 92% of the volunteers were local to Corpus Christi. The rest of the volunteers were from across the USA.

The CCYC won the right to host the 2018 Youth Sailing World Championships in November 2014, wanting to showcase to the world the fabulous sailing wind and wave conditions in Corpus Christi Bay, in addition to the renowned Texas hospitality. With encouragement from several club members, the CCYC decided to incorporate the Sailors for

the Sea Clean Regatta practices into the planning of the YSWC. The LOC quickly determined that the YSWC presented a unique opportunity to educate the next generation of sailors from around the world on Sustainability and Ocean Conservation. In 2017, the CCYC committed to hosting a fair competition and a well-organized, spectacular event while simultaneously hosting a clean regatta and promoting a passion for protecting our oceans in competitors and community members, formally creating the Green Team (GT). (Appendix I)

The presenting sponsor of the championships was H-E-B, an American privately held supermarket chain based in San Antonio, Texas. Six months prior to the Championship, CCYC partnered with 11th Hour Racing, signifying the importance of sustainability to the championship. 11th Hour Racing was named the Official Sustainability Partner of the championships. Alongside H-E-B and 11th Hour Racing are over 15 other sponsors and partners and several private individuals who donated to the regatta. In addition, the GT recruited specific Green Team Partners who helped them accomplish their sustainability goals. (Appendix II)



# VENUE

The regatta venue encompassed three distinct areas in downtown Corpus Christi, all within a 1.2km radius. The **Emerald Beach Hotel** served as the main regatta headquarters, media headquarters, and jury headquarters. In addition, all sailors and coaches were accommodated in hotel rooms at the Emerald Beach Hotel. Dinners, except for the opening ceremony dinner, were served at the hotel.

Boats were kept and launched at **Water's Edge Park**, only a 230m walk from the Emerald Beach Hotel, along the beach-front sidewalk. All breakfasts, lunches, and snacks for competitors were served at the Water's Edge Park under a large tent. Boats launched from the beach below the Park.

The third venue was the **CCYC**, where all race committee, coach, and support boats were docked. Race committee and judges were served breakfast at CCYC while anyone needing to take lunch on the water (race committee, judges, media, and coaches) could pack a lunch at CCYC before heading out on a boat for the day.





# REPORT OVERVIEW

This is the 2018 Youth Sailing World Championships (YSWC) Sustainability Report of the Corpus Christi Yacht Club (CCYC), host of the regatta. This report covers the activities and initiatives undertaken to embed a theme of Sustainability and Ocean Conservation in the 2018 YSWC, held July 14-21, 2018. The report includes results of the initiatives along with lessons learned. This report does not include any economic impact studies or costs of the YSWC.



# 2018 YOUTH SAILING WORLD CHAMPIONSHIPS | KEY ACHIEVEMENTS

## ACCOMPLISHMENTS



- First YSWC with a focus on Sustainability and Ocean Conservation
- First Sustainability Award given at a World Sailing Championship
- First World Sailing Championship to release a Sustainability Report
- Achieved Platinum Certification for Clean Regattas, by Sailors for the Sea

## ENVIRONMENT



### WASTE

- **Saved 22 tonnes of CO<sub>2</sub>e emissions by recycling and composting**
- **89.8%** waste diverted to recycling and composting
- **58.3%** of waste recycled. **31.5%** composted



### NO SINGLE-USE PLASTICS

- **Avoided 65,000 plastic water bottles (12 oz)**
- **550** stainless straws distributed to sailors and coaches
- **400** re-usable bungee cord connectors replaced plastic zip ties
- **70** sustainable bamboo flag poles replaced PVC poles
- **264** re-usable lunch totes distributed
- No balloons, plastic straws, styrofoam
- All banners printed on recyclable PET material



### ECO-FRIENDLY ACTIONS

- **283 storm drain inlets marked in downtown Corpus Christi**
- **2** beach clean-ups
- **407** shirts made of recycled plastic water bottles
- **8** electronic monitors used to reduce paper
- Reef Safe Sunscreen promoted



### ART INITIATIVES

- **400,000+ people saw plastic bottle chandelier at Corpus Christi Airport**
- **2500+** people viewed the "Oceans of Plastic" Exhibit
- **230+** people participated in ocean themed projects in July
- **95+** individuals created a chalk mural depicting marine life



### EDUCATION

- **900 people heard Dr. Sylvia Earle speak at the Opening Ceremonies**
- **7** conservation organizations set-up environmental mini-exhibits



### COMMUNITY ENGAGEMENT

- **Over 45 local community organizations involved in the event**
- **66** local families participated in the "Sponsor Nation" program
- **92%** of volunteers were Corpus Christi locals



### SURVEY

- **54% response rate to pre-race survey**
- **88%** said the sustainability focus enhanced the event
- **96%** want sustainability initiatives at all sailing events



### EVENT STATS

- **382 sailors. 110 team leaders/coaches. 377 volunteers**
- **66** countries
- **7** days, **110** sailboat races
- **256** sailboats shipped in **18** containers to Corpus Christi
- **44** Race Committee and Support Boats

A large teal arrow graphic pointing to the right, centered on the page. The arrow is composed of several overlapping layers of varying shades of teal, creating a sense of depth and movement. The text 'Sustainability Strategy' is centered within the arrow in a white, sans-serif font.

# Sustainability Strategy

# SUSTAINABILITY STRATEGY

The 2018 YSWC was the first World Sailing Championship to incorporate a major focus on Sustainability and Ocean Conservation. The CCYC created the GT to guide the 2018 YSWC toward a more environmentally-friendly sustainable future. The GT included leaders in local and state conservation groups, leaders from the local university, Texas A&M University-Corpus Christi (TAMUCC), and key personnel from the City of Corpus Christi.

## 1.1 Strategy Assessment

The GT was tasked with creating a sustainability strategy addressing the potential environmental, social, and economic impacts of the 2018 YSWC. To develop the sustainability strategy, the GT gathered ideas and input from internal and external stakeholders, including World Sailing, 11th Hour Racing, Sailors for the Sea, and the City of Corpus Christi.

The GT then assessed the extent of their control and influence, to identify where to develop concrete actions for change. The areas over which the LOC had no control or direct influence were not selected as action items for change. Instead, the GT gathered data and anecdotal information on these “uncontrollable” areas to be used as a benchmark for future YSWC regattas. Some examples of “uncontrollable areas” included shipping of boats, branding decisions, and pre-selected vendors. World Sailing and the equipment suppliers controlled the shipping of the boats and all boat packaging. Branding decisions for sails and boats were also controlled by World Sailing. The LOC’s bid included several contractors (such as the Emerald Beach Hotel), and these were chosen prior to the decision of the LOC to host a Clean Regatta.

## 1.2 Sustainability Goals

After critical assessment, the GT decided on the following sustainability goals for the 2018 YSWC, all of which were accomplished.

- **Reach the Platinum (highest) level of [Clean Regatta](#), as designated by [Sailors for the Sea](#).**
- **Promote environmental awareness and ocean conservation to the youth participants in the regatta and the local South Texas community by including an environmental education component in the regatta festivities.**
- **Create an environmental legacy program for the South Texas Community and for future World Sailing Championships.**
- **Publish a sustainability report referencing the Global Reporting Initiative (GRI) Standards which can be used as a benchmark for future sailing and sporting events.**

All the Sustainability Initiatives implemented throughout the YSWC were aligned to accomplish the goals outlined by the GT. Many of the initiatives helped to realize multiple goals.

The initiatives were divided into five key areas, Environmental Impact, Behavioral Habits, Education Programs, Gender / Nationality Representation Legacy Programs

These five areas are examined in detail in the body of this report.



## 1.3 Stakeholder Structure

The development and implementation of an effective sustainability strategy requires the involvement and contribution of many different stakeholders (see fig. 1.1). The LOC identified and actively engaged with numerous stakeholders through consistent and continuous communication.

In particular, the GT benefited immensely from knowledge and support from the Official Sustainability Partner 11th Hour Racing. The GT followed the sustainability checklists provided by Sailors for the Sea and the Council for Responsible Sport. The GT also worked closely with World Sailing to identify specific metrics to capture which World Sailing could use in the future for comparison purposes for other events.

Note: The stakeholder groups are listed in alphabetical order.

Figure 1.1: Stakeholder Structure

STAKEHOLDER GROUP	ACTIONS TAKEN
Commercial Sponsors	The key commercial sponsors of the event, H-E-B, American Bank, Rachal Foundation and 11th Hour Racing, were notified of the decision to run a "Green" regatta. Multiple meetings were held and emails exchanged with sponsors so that they understood their role in supporting the sustainability goals of the regatta. The sponsors, in particular 11th Hour Racing and New Earth Compost, were critical in giving the LOC the resources and tools to achieve the event's sustainability goals. The LOC worked creatively to ensure that the sponsors' needs were met within the confines of a "Green" regatta. Physical signage was limited. Instead sponsors had access to VIP opportunities, electronic signage, and access to media for their company use.
Competitors, Team Leaders, Coaches	All competitors were informed ahead of time about the key initiatives of the Sustainability Plan. They were informed to bring their own reusable water bottles and that no single-use water bottles would be allowed. Many educational programs were included in the championship. For example, the GT provided short informational documentaries during dinner. All were surveyed on environmental and social issues.
Corpus Christi International Airport	GT members met with the Corpus Christi International Airport board members to discuss the increase in travelers during the YSWC and how to best welcome the international travelers to the city. The CC International Airport Board embraced the sustainability goals of the event and wanted to include environmental education into the welcome messaging for the event. The Airport Board also requested that the welcome messaging be applicable and educational to travelers unrelated to the YSWC. Representatives from the GT, together with the CC Art Center, presented several "welcome" ideas to the CC International Airport Board. The Airport Board decided to display the welcome messaging and sculptural display during the YSWC and for a duration of 6 months after the completion of the event.
Corpus Christi Yacht Club Members	The LOC and GT were able to accomplish the sustainability goals of the YSWC by bringing together the expertise, knowledge, and passion of the CCYC members. The LOC began by sending out information to CCYC members via emails, monthly newsletters, and presentations. Notices were posted in the club regarding the regatta and the sustainability initiatives. CCYC members were also polled and interviewed. The membership provided over 200 volunteers for the regatta. The CCYC members housed in their homes and fed all of the sailors participating in the Emerging Nations Program. In addition, the club created a "Sponsoring Nation" program, in which each country was assigned a CCYC host family to take care of them and help negotiate the local culture. Sixty-six families from CCYC volunteered and hosted athletes.
Corpus Christi Yacht Club Staff	The GT gave a presentation to the CCYC staff regarding the sustainability initiatives of the YSWC. The staff were fully onboard with the GT and the goal of making the Platinum Level of Clean Regattas, as designated by Sailors for the Sea. The staff and their families were invited to attend all activities associated with the Championships.
Local authorities (City Government)	Meetings and presentations were held with the Corpus Christi City Council and the Corpus Christi Emergency Management Team immediately after CCYC won the bid to host the YSWC. Initial meetings were held with representatives of the City of Corpus Christi Parks Department and City of Corpus Christi Solid Waste Department to discuss the sustainability strategy began in November 2017. Multiple meetings regarding the sustainability strategy occurred between February and the event in July 2018. Representatives from the City Solid Waste Department and the Corpus Christi Municipal Marina were asked to be part of the Green Team and agreed. The Corpus Christi Convention and Visitor's Bureau was consulted and worked with the LOC to promote the environmental initiatives.

STAKEHOLDER GROUP	ACTIONS TAKEN
<p><b>Non-governmental organizations (social and environmental)</b></p>	<p>In the stakeholder consultation process, the GT presented the strategy to and sought input on issues from numerous NGOs and campaigns in the USA and abroad. All organizations consulted focused on environmental issues and /or the growing concept of sustainability and sport. The GT met in person with Sailors for the Sea in Newport who provided a checklist for running a Clean Regatta. The Council for Responsible Sport was also consulted. Dr. Brian McCullough, professor in Sport Administration and Leadership at Seattle University provided assistance, specifically with the surveys given to volunteers and regatta participants. The head of the Sustainability Commission in the neighboring city of San Antonio was also consulted. All of these stakeholders were instrumental in achieving the objective of the GT and the LOC to promote an increased awareness of sustainability and ocean conservation at the YSWC and the local South Texas community.</p>
<p><b>Service providers and suppliers</b></p>	<p>The LOC and the GT engaged with selected service providers and suppliers to find ways to reduce the impact of items including signage, food &amp; beverage and merchandise. Specifically, the LOC and the CCYC chef worked with suppliers to source compostable products, environmentally friendly signs, and uniforms made in part of recycled plastics. Through meetings with the Emerald Beach Hotel managers and staff, the GT was able to implement composting at the dinners, and in the process educate the hotel staff.</p>
<p><b>South Texas Community</b></p>	<p>Once the CCYC won the bid for hosting the YSWC, they began alerting the South Texas community of the opportunities that the YSWC would bring to the community, as well as the responsibilities that came with hosting such a prestigious event. Presentations were given to many local clubs, including two Rotary clubs. Local conservation associations were approached to join the GT and 11 organizations had a presence on the GT. The Art Center of Corpus Christi and the Texas Coastal Bend Chapter of the Surfrider Foundation used the YSWC as a springboard to create activities specifically for the local community to engage in the sustainability goals of the YSWC.</p>
<p><b>Texas A&amp;M University Corpus Christi (TAMUCC)</b></p>	<p>Texas A&amp;M University Corpus Christi (TAMUCC) played an active role in the regatta. Information was disseminated to the students at the TAMUCC through online notices and presentations given at local clubs. The TAMUCC faculty was approached by the GT and one student was given academic credit for assisting in the GT initiatives. The GT presented the YSWC sustainability strategy to the Director of the Harte Research Institute of Gulf of Mexico Studies TAMUCC. As a result, the Harte Research Institute became instrumental in securing Dr. Sylvia Earle as the opening ceremony speaker.</p>
<p><b>US Sailing</b></p>	<p>The LOC presented the sustainability strategy to US Sailing in early 2018. US Sailing assisted in creating an app for the YSWC which was critical in communicating to competitors. The GT worked with US Sailing to promote the sustainability initiatives of the YSWC and to promote other US Championships to follow suit.</p>
<p><b>Volunteers</b></p>	<p>Volunteers were recruited through the CCYC, rotary clubs, schools, local businesses, sea scouts, sailing clubs, etc. Volunteers attended a mandatory meeting prior to the YSWC, where they were surveyed on environmental and social issues. The LOC informed all volunteers about the no single-use plastic policy, the reef safe sunscreen policy, and the general "Green Team" policies for the regatta. Some volunteers were specifically Green Team volunteers whose role was to educate other volunteers and participants on specific ways that individual actions affect the community, the economy, and the environment.</p>
<p><b>World Sailing</b></p>	<p>In the stakeholder consultation process, the LOC and the GT presented the sustainability strategy to World Sailing and sought their input on specific initiatives. For many areas, the LOC needed World Sailing's support as World Sailing controls the official regatta notices, the boat suppliers, shipping of boats, rules / regulations of the championships, etc. World Sailing launched a new Sustainability Program in 2018, so the YSWC in Corpus Christi presented a wonderful opportunity for collaboration at this regatta. The GT and World Sailing decided together on which metrics to keep track of (water used, shipping carbon footprint, etc.), so that a benchmark would exist for future YSWC. World Sailing supported all efforts of CCYC to implement various new forms of sustainability such as electronic notice boards, phone apps, and emails verses printed material.</p>

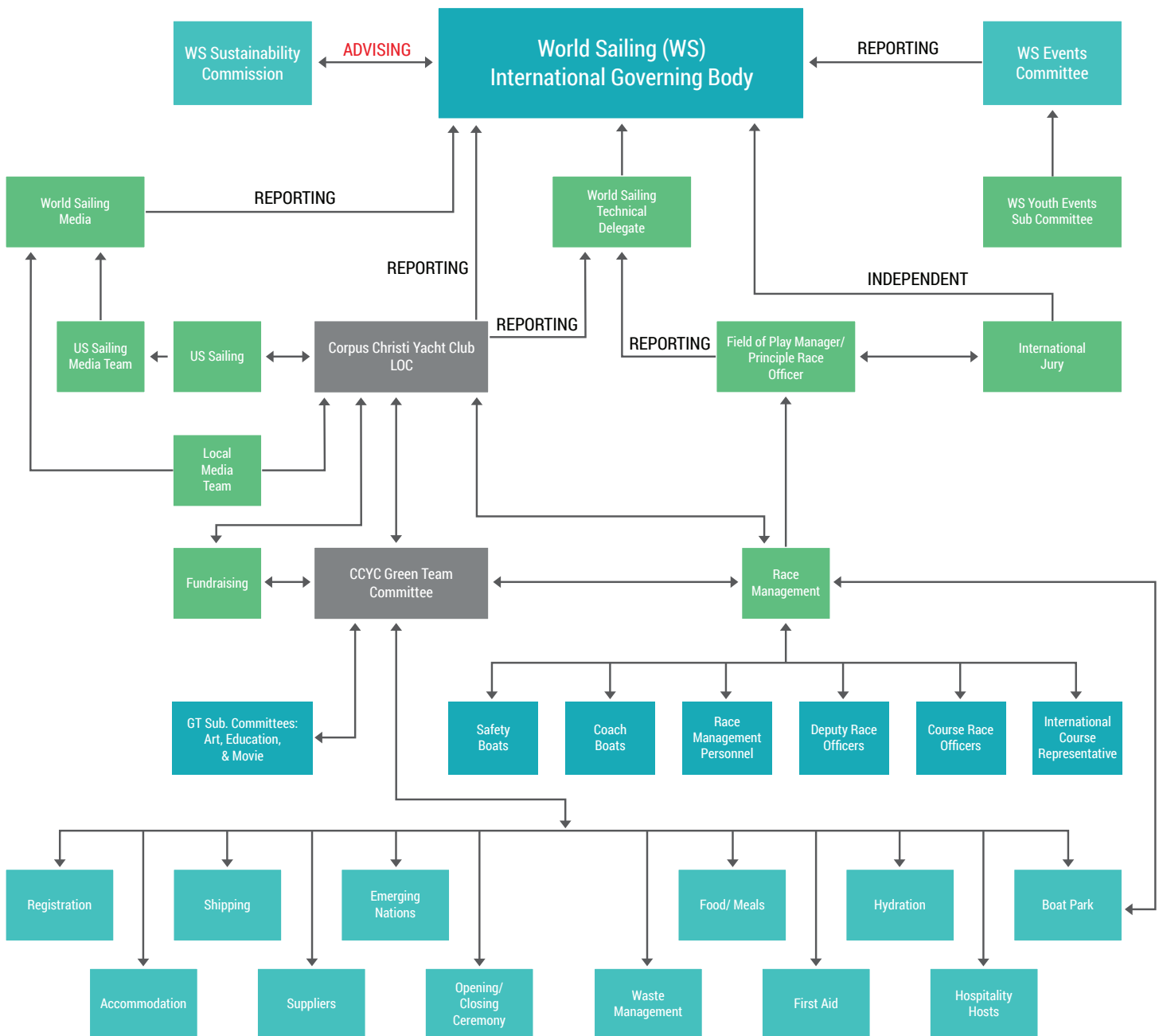
# 1.4 Governance & Organizational Structure

Below is a chart showing the organizational structure of the YSWC. The chart graphically represents the different relationships between World Sailing, US Sailing, and Corpus Christi Yacht Club in organizing and running the YSWC.

The chart below shows the CCYC Green Team’s integral role within every department and function of the YSWC (see fig. 1.2), including the Race Management. The GT included leaders in local conservation groups, the Harte Research Institute of Gulf of Mexico Studies at TAMUCC and the City of Corpus Christi. Involving people from different areas of the community was critical to the success of the GT and sustainability initiatives of the regatta. The LOC was comprised completely of volunteers.

## ORGANIZATIONAL CHART

Figure 1.2: Organizational Chart



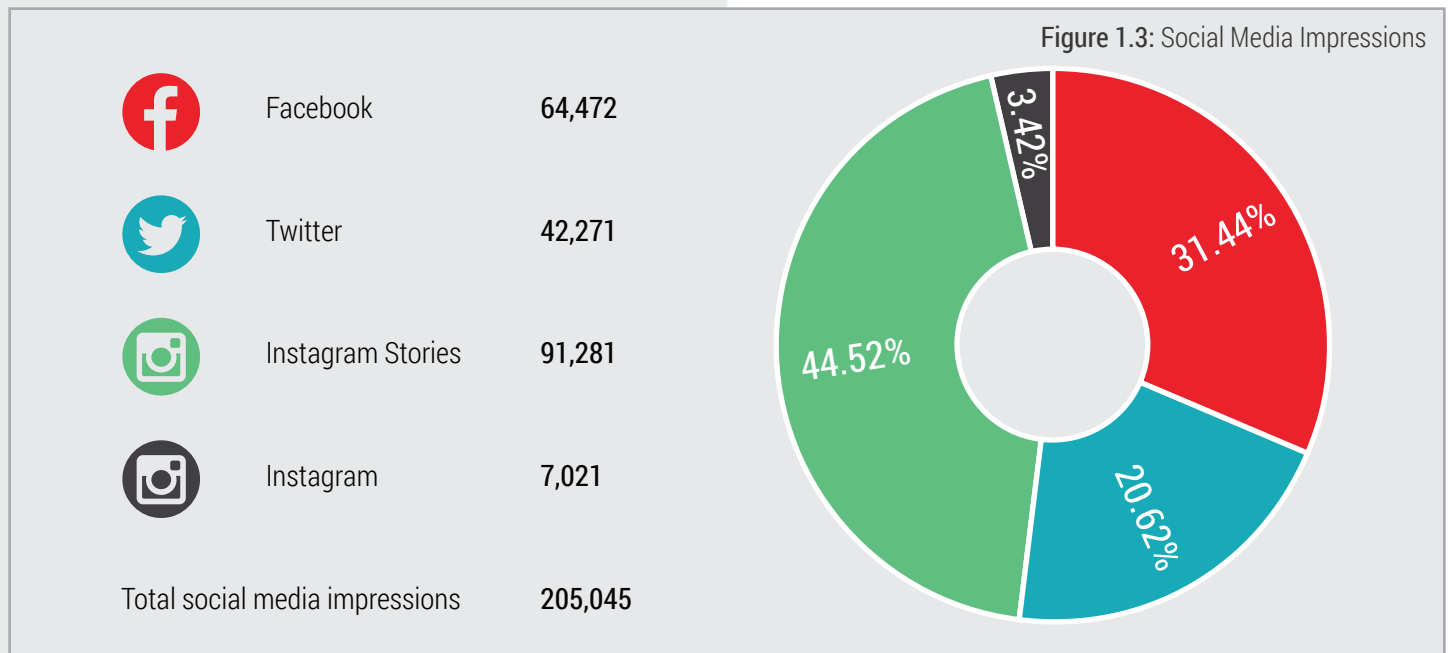
## 1.5 Sustainability Media Coverage

With support from the official YSWC sustainability partner 11th Hour Racing, the LOC and World Sailing created a media plan specifically including content to promote the sustainability initiatives of the Championships. World Sailing's media team focused one day during the Championships, July 18th, on sustainability and ocean conservation, posting over 17 social media posts dedicated to growing awareness of plastic pollution and environmentalism (See fig.1.3).

The LOC's local media point person worked hard with local and regional media to produce traditional media pieces (newspaper and Television) which focused on the sustainability aspects of the YSWC.

# 205,045 Social Media Impressions

## from World Sailing postings on Sustainability



## 2 MOST POPULAR WS VIDEOS -- Guardians of the Ocean & 5 Simple Eco-Friendly Steps

### SOCIAL MEDIA POSTS (FACEBOOK, TWITTER, YOUTUBE) – OUTSIDE OF WORLD SAILING

New Art Installation Hung at Airport, [Corpus Christi Caller Times online](#)

British Youth Sailing Team 420 Girls Sustainability, [British Youth Sailing Facebook Page](#)

From Corpus Christi and to all sailors, we challenge you to join us in protecting the ocean!, [Manuel Fortunato / Frederico Baptista Sailing Team Facebook Page](#)

New Earth Youth Sailing World Championships, [New Earth Compost](#)

### POPULAR ARTICLES / BLOGS

Youth Sailing World Championships Bring Sustainability to Corpus Christi, [Texas, GreenSportsBlog](#)

Youth Sailing World Championships in Corpus Christi comes clean, goes green, [Corpus Christi Caller Times](#)

Plastic bottle chandelier to hang in the Corpus Christi International Airport, [Corpus Christi Caller Times](#)

New Earth Composts Organics for World Sailing Event, [State of Texas Alliance for Recycling](#)

### LOCAL TELEVISION COVERAGE

Sailors Encouraged to Leave their Mark on Corpus Christi Bayfront, [KRISTV 6 News](#)

Going Green at the Youth Sailing World Championships, [KRISTV 6 News](#)





# Environmental Impact

# ENVIRONMENTAL IMPACT

This section explores the environmental impact of the regatta by recounting measures taken to use resources more efficiently and by looking at exact data. A heavy emphasis was placed on no single-use plastics at the event, composting, recycling, and reducing paper use. (See Appendix III for specifics on how calculations and measurements were taken.)

## 2.1 No Single-Use Plastic Water Bottle Policy

The biggest challenge for the organizers of the YSWC was to ensure all sailors, race committee, and volunteers were hydrated properly. The Texas heat and humidity in July is exceptionally high and the risk of heat stroke is significant, particularly for visitors from colder climates. In the past, the normal procedure for local regatta organizers was to have large cases of single-use plastic 12 oz water bottles in coolers to be distributed. The GT worked hard with the organizers to switch from a single-use water bottle system to more sustainable systems both on the water and on land.

Prior to the event, all competitors, coaches, race committee, and volunteers were told to bring a personal reusable water bottle and were alerted that the regatta would enforce a “no single-use plastic water bottle policy.”

Overall the reusable water bottle policy was a success. In the beginning of the week, several competitors were re-filling single-use plastic bottles because they had not brought a reusable bottle. Also, in the first 2 days of the event, several teams tried to bring single-use bottles into the venue but were stopped by security and not allowed to enter with them. By the end of the week, we did not see any single-use plastic water bottles in the boat park.

## ON LAND HYDRATION SYSTEM

Four 125-gallon, bulk water dispensers with six spigots each were purchased from Water Monster, a local Texas company, to use on land. One was placed at the CCYC for race committee, judges, media, and coach use. It is important to note that the water station at CCYC was primarily used to refill water bottles and large 5-gallon jugs which were then taken to be distributed on the water to competitors.

The remaining three Water Monsters were placed in strategic locations at the Water's Edge Park, where the boats were kept and where breakfast and lunch were served. These water dispensers were kept filled with ice and filtered water from the city drinking water supply. Next to each water dispenser was a 5-gallon drink dispenser with Gatorade, to ensure that competitors had electrolytes.





After the regatta, the four water monsters were distributed to four yacht clubs in Texas with active youth sailing programs. The recipient clubs were:

- Corpus Christi Yacht Club, Corpus Christi, TX
- Lakewood Yacht Club, Seabrook, TX
- Texas Corinthian Yacht Club, Kemah, TX
- Rush Creek Yacht Club, Dallas, TX

## ON THE WATER HYDRATION SYSTEM

All race committee boats, judge boats, coach boats and support boats were equipped with 5-gallon water jugs with hand pumps (dolphin pumps). To keep the water cold in the 98°F temperatures, the 5-gallon jugs were placed in trash cans and surrounded by ice. **A total of 2,177 Liters (L) of ice was used to cool the 5-gallon water jugs.** The CCYC purchased thirty 5-gallon jugs which were refilled each evening and reused the following day. The majority of the jugs were refilled by the Water Monster at the CCYC.

All competitors were encouraged to bring a reusable water bottle with them on their boat. This water bottle could be refilled in between races by any race committee or support boat. There were no specific water boats. Due to the extreme heat, every non-race boat was obligated to refill water bottles when requested.

The windsurfers presented a challenge because they could not bring water bottles with them on their boards. For the windsurfers and emergency situations, World Sailing purchased 500 reusable water bottles which were kept filled and iced. The windsurfers were thrown one of these bottles in between races for hydration and then returned to the support boat. The bottles were washed in the evenings by hand and reused the next day. These water bottles were also used as emergency water bottles on other courses, for competitors who forgot to take their reusable bottle with them on the sailboat.

## SEALED WATER FOR DOPING CONTROL

USADA and WADA required individual sealed water bottles for each competitor selected for drug testing. The regatta used boxed water to satisfy this requirement, thereby avoiding single-use plastic bottles. All boxed water containers were recycled. Corpus Christi recycling accepts shelf stable and refrigerated cartons. Two cases of boxed water were supplied as sealed water for doping control.

*A company, called [Boxed Water is Better](#), supplied the sealed water. Boxed water is packaged in 74% recyclable paper, 20% plastic, and 6% aluminum. The company has a strong commitment to planting trees and cleaning beaches. In addition, the boxes are shipped flat to local filling stations. By shipping flat boxes to the source, the company uses one truck for every 26 trucks used by plastic water bottle companies.*

## DATA

To record the quantity of drinking water consumed, gauges were placed on the hoses used to fill the Water Monsters and Gatorade stations at both the CCYC and boat park. The gauges were read and recorded each morning before the boat park and CCYC opened for that day's events. Ice used to fill the Water Monsters and Gatorade stations was also recorded as it eventually melted and was consumed as water.

Water and ice used at the CCYC was considered "on boats" usage as it was placed on boats to be distributed between races. "On land" water usage was considered water or ice used to fill Water Monsters and Gatorade stations in the boat park.

8,741 L of water consumed on boats.  
14,632 L of water consumed on land.  
(see fig. 2.1).

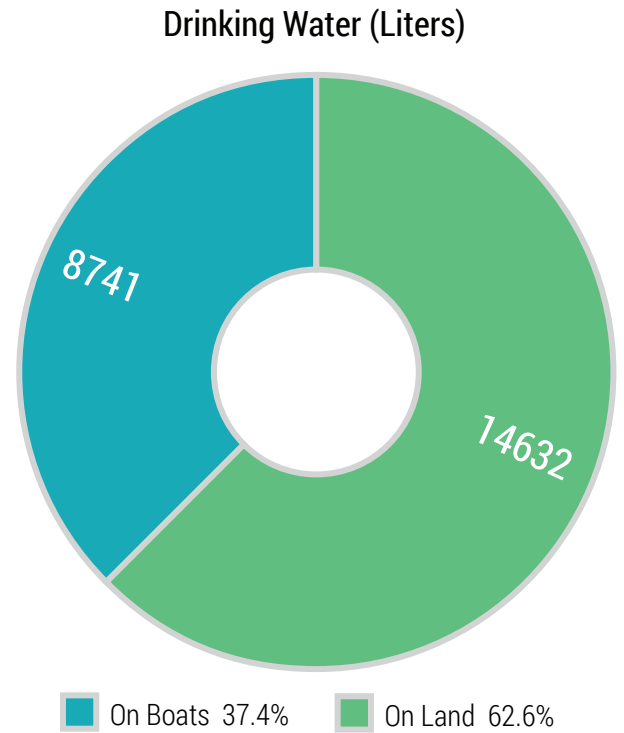


Figure 2.1: Drinking water usage on land and on boats.



# We saved over 65,000 12 oz single-use water bottles.

1. The 5-gallon jugs in the trash cans on all support boats was critical due to the extreme heat. This system allowed the water to be iced down. The jugs were also more stable in the boats, as the trash cans were able to be tied in place.
2. The LOC and World Sailing need to send out notices farther in advance and directly to competitors and coaches, stressing the importance of bringing personal reusable water bottles. Only about 40% of people brought a reusable water bottle with them to the event. Notices to bring a personal water bottle were on the YSWC website and were emailed to each country's Team Leader in the beginning of June. Team Leaders were responsible for telling their competitors to bring reusable water bottles with them to the regatta. This information, in many cases, did not make it to competitors. Many competitors had to purchase water bottles after they arrived at the venue.
3. A better, more hygienic system needs to be in place for washing any water bottles which are reused by different people each day.
4. All race committee and judges were given large Yeti water bottles as a personal gift from the Field of Play Manager and the Race Committee Chairman, and, as a result, they all had reusable water bottles.
5. Compostable cups were available on land at CCYC and the Water's Edge Park for drinking beverages during meals. The cups were supplied for use drinking Gatorade, ice-tea, and juices. A large majority of the people used these cups for drinking water instead of refilling their water bottles. The organizers need to encourage all people to refill their water bottles instead of using the cups for water.
6. It was critical to have volunteers manning the water stations on land and refilling water jugs early in the mornings to give to the race committee. It took four people two hours every morning to fill and ice the 125-gallon Water Monsters, the 5-gallon water jugs for race committee, jury, coaches, and support boat personnel, and the reusable World Sailing individual bottles which were distributed to windsurfers and those who did not bring water bottles. Ice was added to the Water Monsters in the race park several times per day.

## 2.2 Zero Single-Use Plastic in all Venues and Race Committee Boats

Organizers planned well in advance to eliminate the use of plastic in the boat park, hotel, CCYC, and on race committee boats. Some notable steps taken included:

**1. LUNCHES ON THE WATER**  
A total of 264 insulated, reusable lunch totes and 400 reusable snack bags were given out to all race committee, judges, coaches and volunteers who were on the water during lunch. Extras were distributed to VIP guests who went on the water to watch races. The use of the insulated lunch totes and reusable snack bags was extremely successful.

Each person was responsible to keep his/her own reusable lunch tote and snack bags and bring them the next day clean and ready to use. The club did not facilitate the washing out of individual lunch bags. Everyone embraced the use of the lunch totes and really liked them.

The reusable, insulated lunch totes, with zipper closure and adjustable strap, were made from recycled plastic bottles.

*Tote Materials: Bag (including lining): recycled PE #1 plastic bottles. Strap: polyester. Insulation: Polyethylene. BPA-free, PVC-free and lead-free. Purchased from [UKonserve](#).*

Reusable snack bags were used for nuts, granola, fruit, cookies, etc. in each person's lunch bag.

ALL sandwiches for race committee, jury, coaches, and spectators were wrapped in compostable paper.



## 2. Flag Poles

The official flag poles on land for signals were made of metal. **All flagpoles in the opening ceremonies were bamboo and were given to a community garden for re-use.** The flagstuffs used by the race committee were either metal or they were already existing staffs made from polyvinyl chloride (PVC). Most of the race committee flags have been on the same PVC poles for more than 10 years. It was decided that it was not economical or sustainable to remove them and purchase metal or bamboo, as they will continue to be on the same PVC poles for the lifetime of the signal flag, or more.



## 3. CONNECTIONS FOR FENCING & BANNERS

The boat park was surrounded by temporary metal fencing. The fencing was connected using bungee cords instead of zip ties. All sponsor banners were attached to the fencing with the same reusable bungees. **400 Bungee Cord connectors were purchased and used instead of plastic zip ties.**



## 4. CONNECTIONS FOR RACE COMMITTEE FLAGS

Reusable zip ties were used to connect the country flags to the line for stringing across the boat park. Also, the race committee used reusable zip ties to attach some of the flags to the bamboo poles. Two hundred **Reusable** zip ties were purchased. The reusable zip ties held up much better than expected. All reusable zip ties were collected after the event. They have already been reused at two other regattas in Texas.



## 5. NO PLASTIC STRAWS ALLOWED

Plastic Straws were banned from the boat park, CCYC, the hotel coffee station, and dinner at the hotel. **All competitors were given stainless steel straws donated by Sailors for the Sea.** Note: The hotel continued to serve drinks with straws in their restaurant and bar. The regatta organizers had no control over this aspect as the YSWC did not use these facilities.



## 6. TABLEWARE & UTENSILS FOR ALL MEALS

All tableware (i.e. cups, plates, bowls) was either china and washed each day, or made of a compostable material. All utensils and silverware were metal and washed each day.

## 7. REUSABLE BAGS

All competitors were given reusable bags to carry their gear. These were highly successful. The reusable bags were donated by the Coastal Bend Bays & Estuaries Foundation.

## 8. BULK FOOD

No individually wrapped plastic products (condiments, sugar, foods, etc.) were served. All cereals, snacks, chips, fruit, etc. were served in bulk. As an alternative to granola and protein bars, the regatta served handmade "protein balls" made by a local baker. The pre-made sandwiches were the only single wrapped item, and these were packaged in biodegradable, compostable packaging.

*NOTE: To find a company who could fulfill such large sandwich orders using biodegradable, compostable packaging, the sandwiches had to come from San Antonio, about two hours away.*

## 9. HOTEL ROOMS

No single-use water bottles were given in the hotel rooms. Competitors were encouraged to save water by reusing towels.

## 10. SPONSOR BANNERS

Vendors and sponsors were not allowed to bring their own banners, so that the LOC could control the material and printing of all banners and flags.

Feather flags were printed on a recyclable fabric and were printed with water-based inks. The bases were plastic and could be reused. *These were sourced from Orbus, who certified the materials. The Orbus manufacturing facilities presented the LOC with their official environmental management system credentials.*

All banners were printed on recyclable PET material with water-based inks. *This material was special ordered by Ultraflex. This SuperSmooth™ PET Blockout is a 15 oz scrimless, block out banner material. The media is engineered for indoor use and has a non-curl formula providing a lay flat appearance without the use of hemming tapes. The layer in SuperSmooth PET Blockout is made from matted PET, allowing for easier separation during the recycling process.*





1. The following were extremely successful: reusable lunch totes and snack bags, reusable bags, bungee cord connections, and the reusable zip ties.

2. Better pre-planning with the hotel PRIOR to signing any contracts is necessary. All contracts for hotel accommodation and dinners were signed several years prior to committing to hosting a "Clean Regatta." In general, the hotel was accommodating to the best of their abilities. The hotel's complimentary coffee station switched from Styrofoam cups to compostable cups for the regatta. The hotel also switched the straw stirrers to spoons, and the individual sugars and plastic creamers were switched to a bulk system. In addition, no single-use plastics were used at the dinners for sailors. The hotel, however, did not change any of their practices in the hotel restaurants and bar. As a result, straws and plastic cups were still offered at the outside bar, and Styrofoam was still used by the hotel for takeaway food. All these things were out of the control of the LOC.

3. Sailors brought into the boat park individually wrapped sports, protein and granola type bars, as seen from wrappers in the landfill bins. In the future, it might be possible to reach out to a major manufacturer of popular sports bars and have them send the bulk product to the regatta to avoid excess, no-recyclable packaging.

4. Sourcing the materials for the banners took time and should be done years in advance.

5. Ice for the water dispensers was delivered every morning in 20lb plastic bags. The GT failed to plan for this aspect. In the future, ice can be obtained by filling coolers with ice at bulk dispensers.





## 2.3 Waste Management: Composting, Recycling, Landfill

This regatta emphasized landfill diversion and placed a huge priority on composting and recycling. The GT wanted to eliminate waste up front, and then divert as much waste from landfill as possible, to show competitors that a zero-waste future is possible through proper recycling, composting and not using plastics.

Waste calculations included waste generated at the following locations: Water's Edge Boat Park (including the tent where all competitors ate lunch and dinner); all media, jury, race committee, and meeting rooms at the Emerald Beach hotel; and the ballroom where the daily coaches' briefing and dinners took place. The Green Team collected compostable waste from the dinners served at the Emerald Beach Hotel, but not from food prep in the kitchen. They also collected the waste at CCYC which was generated from the race management breakfasts.

The LOC had no control over the waste collection and disposal in competitors' hotel rooms and in the Emerald Beach kitchen where dinners were prepared. As a result, data from these areas was not included in the waste calculations. In addition, the waste generated at the CCYC included waste from the general daily activities of the club which had nothing to do the YSWC. Therefore, the LOC ONLY gathered data from the waste which was generated from the race management at CCYC.

## WASTE STATIONS

The waste stations in the Water's Edge Park (boat park and breakfast/lunch area) each had three containers: one for compost; one for recycling; and one for landfill. In total, there were eight waste stations at the Water's Edge Park. These waste stations were provided by the City of Corpus Christi Department of Solid Waste and returned to them after the event.

The waste stations at the Emerald Beach Hotel and the CCYC each had four separate containers: one for compost, one for recycling paper only, one for other recycling, and one for landfill. The hotel had four waste stations and the CCYC had one waste station where breakfast was served to the race management. These waste stations were donated to the following groups after the regatta: Corpus Christi Visitor's Bureau, Texas A&M Corpus Christi Islander Green Team, and the CCYC.

Each waste container in the stations was clearly marked. The majority of the waste occurred during meal times. Trained volunteers manned waste stations at meal times to direct people which container to use.

*All waste at unmanned stations was hand sorted prior to being disposed of, meaning a volunteer had to hand sort through the waste bins to properly sort ALL recycling/composting/ landfill.*



## COMPOSTING

The GT reached out to the Islander Green Team of Texas A&M - Corpus Christi (TAMUCC) to assist with the regatta composting plan. The TAMUCC Islander Green Team has a successful composting program on the university campus, creating a nutrient-rich fertilizer which they use in the university community garden. The Islander Green Team created a plan to compost the regatta material on nearby property owned by a local farmer. In return for loaning space for the compost, the farmer would keep a portion of the fertilized soil created. Under this plan, only clean, raw organic waste from coffee grounds, tea bags, fruit and vegetable scraps would be able to be composted.

About two months prior to the championships, the GT was informed that all breakfast and lunch would be served on compostable tableware and not on the originally planned china plates, due to an inability to wash the large number of plates and bowls in a timely manner. The compostable tableware required an industrial composter. The closest industrial composting facility is 240km away in San Antonio, Texas.

The GT quickly reached out to several industrial composting facilities in San Antonio. After much persuasion, New Earth Compost facility agreed to take the compostable material. The compost was stored in a roll-on, roll-off dumpster for the week and then driven to San Antonio.

The collection of materials for composting began on the first official day of the championships, July 14th.

All compostable materials were gathered in 33-gallon, 1.1 mm thickness fully compostable bags: Unni 100% Compostable bags.

All compostable tableware was BPI certified and made from either corn or sugar cane. All were purchased from EcoProducts. (See Appendix IV)

## RECYCLING AND LANDFILL

The recycling and landfill for the regatta began as soon as the containers of boats arrived, as early as two weeks before the start of the event. Most of the recycling and landfill waste came during the unpacking of the boats. The boats and boat parts shipped in the containers came wrapped in plastic, bubble wrap, and cardboard. The plastic and bubble wrap were placed into landfill. The cardboard was recycled.

During the actual regatta, the recycling consisted mainly of cardboard boxes from food delivery, a small percentage of sports drink bottles, and some paper. The landfill during the regatta consisted of mostly containers from food purchased outside the venue, which usually came from the media and race committee headquarters.

Note: Corpus Christi does not recycle glass. However, there was almost no glass at the event.



## DATA\*

A total of 3.66 tonnes of waste was generated during the YSWC at the boat park and hotel, including preparing before the event and cleaning up after.

**The LOC diverted 3.28 tonnes (89.8%) from the landfill into recycling and compost**

Most of the waste consisted of recycling (58.3%), mainly comprised of cardboard from packaging, followed by compost representing 31.5% of waste and landfill (10.2%) (See fig. 2.2).

*\*Data was gathered from waste generated at the following locations:*

- *Water's Edge Boat Park (including the tent where all competitors ate lunch and dinner)*
- *All media, jury, race committee, and meeting rooms at the Emerald Beach hotel*
- *The ballroom where the daily coaches' briefing and dinners took place*
- *The compostable waste from the dinners served at the Emerald Beach Hotel*
- *The compostable waste from the breakfasts*



1. The majority of waste generated on regatta days was compost. There was very little recycling and landfill wastes created during the regatta.

2. Even with clearly marked containers and an equal number of compost, recycling, and landfill bins, the sorting of the waste was still necessary. The cold-water compostable cups made of cornstarch look very similar to plastic cups, and they were often mistakenly thrown into recycling.

3. The bin signs had both writing and symbols, but it would have been useful to have the signs in one or two other languages for international competitors, maybe Spanish and French.

4. Volunteers manning the waste stations where meals were served was critical to the waste management process, to tell people where to put their waste. The volunteers educated people about composting and recycling and directed them to dispose of their waste in the proper bins.

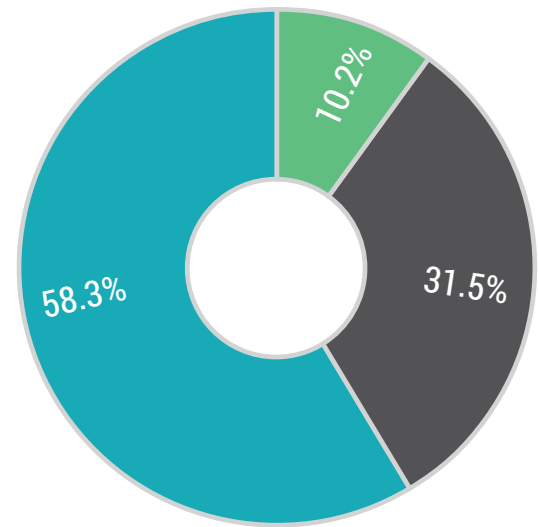
5. The largest amount of waste was generated on the days leading up to the regatta because of boat packaging materials and sticker applications on boats and sails.

6. Boat suppliers and World Sailing need to collaborate to reduce the amount of packaging for new boats and create reusable packing materials.

7. World Sailing needs to come up with an alternative to using stickers on sails and boats, particularly vinyl stickers. The backing from the stickers contributed an immense amount of waste. Over 1,454 vinyl stickers were applied to boats for branding purposes (country flags, country codes, and sponsor stickers). After the regatta 95% of these stickers are removed and end up as landfill.

8. A large amount of waste was generated from the official regatta competitor t-shirts supplied by the official World Sailing clothing sponsor. Over 600 competitor shirts were individually wrapped in paper bags. Each shirt had a plastic string with a tag on it. The paper bags were recycled, and the plastic strings thrown in landfill. The volunteer and race committee shirts which were organized by the LOC came packed together in large boxes.

**Weight (Tonnes)**  
3.66 Tonnes total waste



	Landfill 0.37 t
	Compost 1.15 t
	Recycling 2.13 t

**Figure 2.2:**  
Waste generated during the event

## 2.4 Reduction of Paper

ALL paper used at the regatta was recycled content paper. However, the GT goal was to drastically reduce the amount of paper used during the event. The GT used a combination of technology to communicate with competitors, coaches, race committee, jury, and volunteers to reduce paper use. Technology included the creation of an App specific to the YSWC, utilization of large monitors throughout the venue, and further development of electronic scoreboards utilizing the online scoring software.

Rather than have an official notice board located in one physical spot,

the “Official Notice Board” was located online on the World Sailing Regatta Website.

There was an electronic, unofficial notice board on site.

Many announcements and non-official communications were sent out through an online event App. This App developed by US Sailing, gave notifications about when fleets would be launching, if damage deposits were required, if notices were posted, protest times, etc. The App also provided quick links back to everything on the “Official Notice Board”. It was important that the App linked back to the “Official Notice Board” online, rather than duplicating the information. All official regatta information was very accessible in multiple places



### TOTAL OF EIGHT SCREENS USED:

- **Five screens** were located at the Race Office (Official Notice Board)
- **One screen** was located outside the Jury room / by Jury Secretary. This screen showed all daily protest information.
- **Two screens** were set-up under the tent in the boat park. One monitor rotated rule 42 protest. One monitor rotated scores.

### INFORMATION DISPLAYED:

- **Two** had scores rotating by fleet
- **One** had protests (auto-refreshing every 5 minutes)
- **One** showed Rule 42 Penalties (auto-refreshing every 5 minutes)
- **One** with announcements on rotating pages (official announcements and the schedule). For examples [CLICK HERE](#).

## PAPER REDUCTION FOR SCORING

Scoring is usually one of the biggest paper requirements of a regatta. Normally, after each race is scored, results are printed and posted. (In the YSWC over 100+ races were run). If results were printed, some fleets would need to use multiple pages for results. Also, as more races were completed, and the results would need to be printed in landscape form, then each fleet would use even more paper to print complete results. Keep in mind, that after each protest or scoring inquiry, the results would need to be reprinted.

**Normally a regatta of this size would use a minimum of two boxes of paper. This regatta used about 50 pieces of paper in the Race Office for the week-long regatta.**

The regatta officials did physically post one paper, printed copy of the original Notice of Race and Sailing Instruction, plus a few other paper documents, that wouldn't change throughout the regatta in the window of the race office at the hotel.

## PAPER REDUCTION FOR PROTESTS / JURY

All notices of protest times, decisions, and Rule 42 violations were posted online and displayed on screens, which also created a permanent record for the regatta.

The only paper was used for competitors lodging protests. There was no digital version of a protest sheet. Protestors filled out the protest sheets by hand and drew their recollection of the incident on paper. Copies were made and provided to all jury members and the sailor being protested.

Less than a quarter of a ream of paper was used by the Jury. (This is less than 125 pages of paper.)



**1.** The coordination of information on the electronic TV monitors and the on-line "Official Notice Board" was critical. The challenge was to coordinate and update all information at the right time and keep it in sync. A "Chief of Information Dissemination" must be onsite until after protests end, so that up to date information can be posted on the app and the web site. The "Chief of Information Dissemination" coordinates with the scorer to refresh on-line and on-site screens at the appropriate times.

**2.** The LOC committee should have arranged for their own Internet access. The Emerald Beach Hotel tried to give the Race Office dedicated bandwidth, but their attempts to do so were no match for 400 young sailors and their smartphones. This is a critically important fact. After day 2, the Race Office switched to the hotel's business office Internet which worked better.

**3.** The 2018 YSWC App, created by US Sailing, was very helpful to send out notifications and announcements. Couple that with scoring being available online, and there was little traffic going by the monitors at the Race Office after racing. As we see the shift towards more online scoring (especially with younger competitors), this trend will probably increase, reinforcing the need for the utmost capability in Internet connection as possible.

**4.** This technology required a fair amount of overhead. Renting the TV's was an added expense, but these were rented locally. The website to display the scoring had to be built and tweaked by a specific IT professional. Most people can set up a TV, but the back-end technology needs an IT professional to hook it up and work out the kinks.

**5.** In a perfect world, a technology would be created to allow protests and drawing of situations to be electronic and not on paper, that is intuitive and easy to use. In the future, protest committees and juries should research using [Rocketbook](#) Notebooks for drawing protest situations.



## 2.5 Support Boats

In total there were 44 boats used during the regatta as race committee, safety, coach or support boats (See fig. 2.3).

Where possible, lightweight, fuel-efficient RIBs were used. These RIBs use significantly less fuel than the fiberglass counterparts.

Type of Boat	Quantity
Sail	8
RIB	9
Hard Power Boat (Diesel)	4
Hard Power Boat (Gasoline)	23

**Figure 2.3:** Type of boats used for race committee, safety, coach, and support boats at event.

## 2.6 Fuel Usage

The amount of fuel used for race committee, jury, coach, and support boats was minimal in Corpus Christi, in part due to the close proximity of the race courses to shore. Two race course locations were only 1 nautical mile (NM) from the marina, with the third race course only 2 NM from the marina, and the fourth race circle only 2.5 NM from the marina.

Secondly, the YSWC used significantly less gasoline than other international events because coaches were required to go together on the water in one large boat, which was anchored for the day. They were not allowed to follow the competitors around the race course, during each race. Normally in international regattas each coach operates his/her own individual boat and there are less navigational limits.

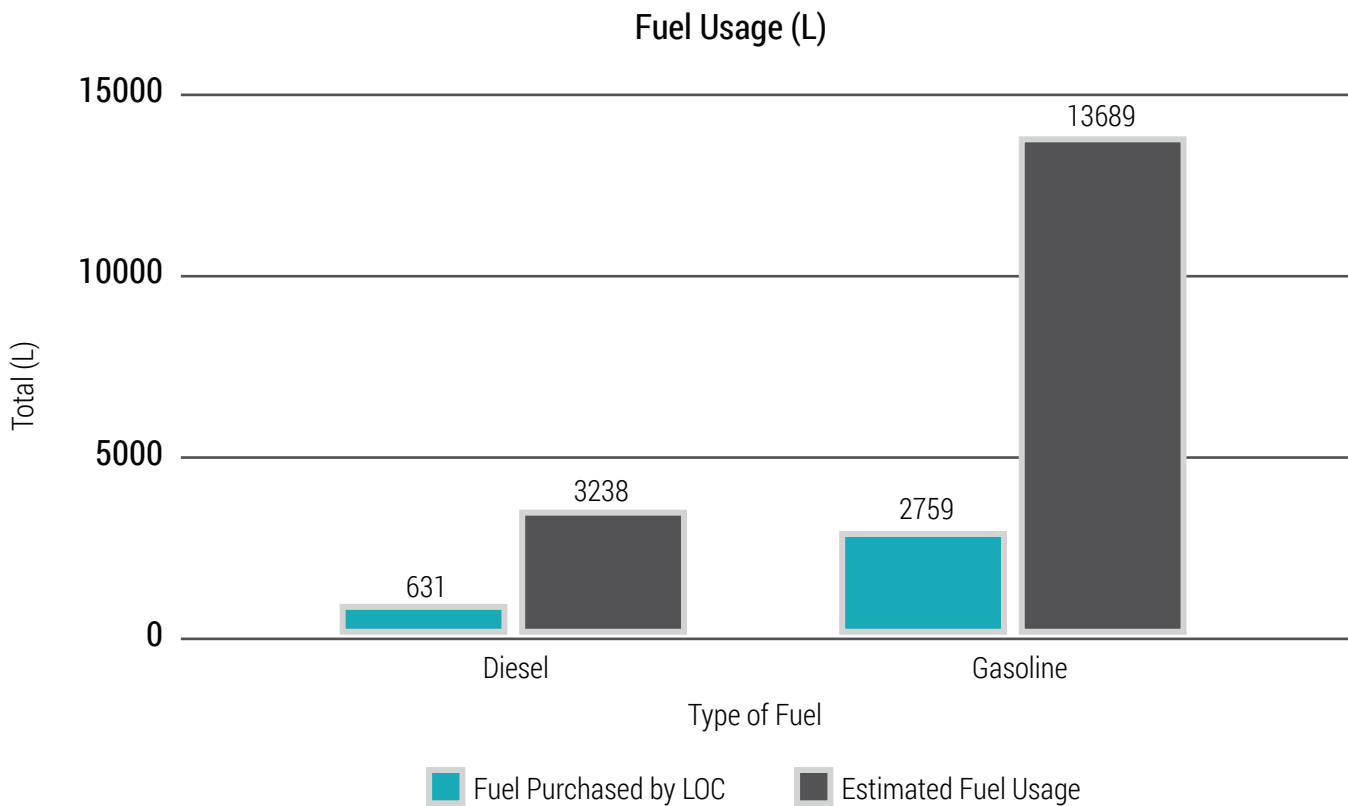
Corpus Christi has one fuel dock at the municipal marina. Any fuel purchased during the regatta and paid for by the regatta was recorded. Figure 2.4 shows the fuel purchased by the LOC for the regatta, for use by race committee, support and coach boats.

**631.1 L of diesel and 2,759.2 L of gasoline were purchased during the event.**

Many of the boats loaned to the regatta, especially those with larger engines, were fueled up prior to the start of the regatta by their owners and did not need to refuel during the event. Many of these boat owners paid for and donated their own gas.

**AS A RESULT, WE KNOW THAT THE EVENT USED MORE FUEL THAN WAS PURCHASED BY THE LOC.**

**An estimate of the actual fuel used at the regatta was made based on type of boat, size of engine, and distance to race courses. According to estimates, 3238 L of diesel and 13,689 L of gasoline were used at the YSWC.** (Appendix V)



**Figure 2.4:** Total boat fuel purchased by LOC during the race vs. estimated fuel usage by each boat.

## 2.7 Oil Spill Prevention

The Corpus Christi Municipal Marina, where the CCYC is located, was the first marina in Texas to be designated with the “Clean Marina” status. [The Clean Texas Marina Program](#) is managed by a partnership of the Texas Sea Grant Program, Marina Association of Texas, Texas Commission on Environmental Quality, Texas General Land Office and Texas Parks & Wildlife Department, with Sea Grant serving as a program administrator.

The CC Municipal Marina voluntarily follows programs which reduce and prevent pollution. For example, the CC Municipal Marina offers free contaminated bilge water pump-outs to interested boaters. The marina provides a designated site for self-service pump-out for holding tanks, free of charge. Any vessel that utilizes an onboard marine sanitation device or any onboard sanitation devices will have a dye tablet placed in the holding tank by Marina Staff to ensure it will not be pumped into Marina/Corpus Christi Bay waters. CC Municipal Marina also has a strong program for recovery and recycling of monofilament fishing lines.

The CC Municipal Marina has strict policies for fueling boats at the gas dock which are clearly posted. Fuel discharge into the waters is prohibited. All powerboats are required to be equipped with bilge sponges and/or fueling spill pads to purchase gas at the marina. Owners, or an adult representative, are required to attend to the fuel nozzle throughout the fueling operation until the nozzle is shut off and returned to the fuel station attendant. During the YSWC, Marina personnel were on site, daily, to ensure that rules and fueling procedures were followed.

The CC Municipal Marina has signs posted near the fuel station, clearly describing all emergency protocols to follow should fuel or other contamination enter the water.

Marina officials were on site monitoring all fueling of boats. The marina personnel are required to report any fuel spill incidents to the CC Municipal Marina office.

# No fuel spillages were reported during the YSWC.

## 2.8 Energy Usage

The GT planned to measure energy usage by reading the energy meters at the Emerald Beach Hotel and the CCYC each morning of the event. Unfortunately this was not successful. The energy meters at the hotel were not measuring the entire hotel’s usage, and the meters at the CCYC measured the entire pier, not the CCYC alone. The GT was also unable to measure the energy usage at the boat park. Due to these issues, there is no data for the electricity used at the Emerald Beach Hotel or the Water’s Edge Park.

Though there were complications with measuring energy usage at the CCYC, the GT collected some information by comparing usage from July in 2017 and 2018. Using billing information for the month of July we know an extra 18,321 kW were used in July of 2018 compared to 2017. The extra energy usage is due to the increased hours that the CCYC had during the event. During the YSWC, the CCYC was open on Monday, when they are typically closed, and the CCYC opened much earlier than usual to prepare for the events.



1. It is important when negotiating with vendors for large events that the contract includes a statement requiring the vendor to track the amount of electricity used at the event.

2. When measuring electricity at future YSWC, a system should be developed to compare electricity usage in different sized buildings and structures, (such as based on per square meter of building space).



## 2.9 Shipping of Boats

World Sailing and their boat partners supplied all the sailboats used at the 2018 YSWC. A total of 256 boats were shipped to Corpus Christi from ports around the world. Shipping routes involved freighting the shipping containers by sea and land.

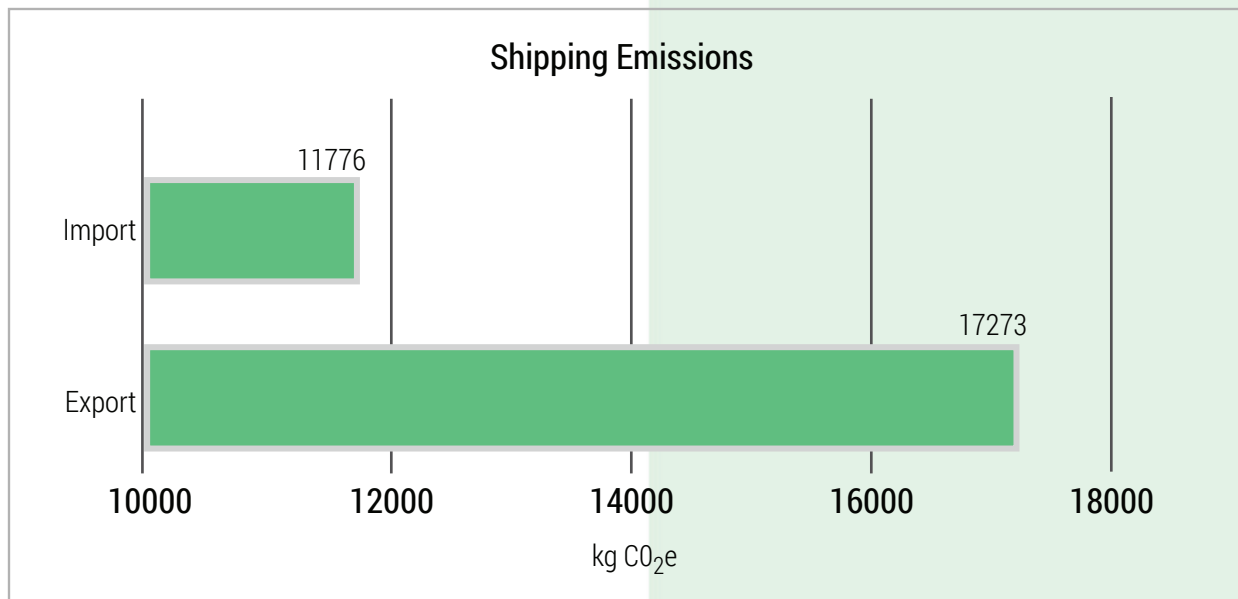
A total of eighteen 40-ft containers were shipped by sea to the Port of Houston then trucked to the venue in Corpus Christi. Once unloaded, the empty containers were driven back to the Port of Houston.

After the YSWC ended, sixteen 40-ft containers and one 20-ft container were transported by truck to Corpus Christi from the Port of Houston and repacked for export. Six of the 40-ft containers were trucked to partners in the United States while the remaining eleven containers were trucked back to the Port of Houston for shipment by sea to locations across the globe.

Emissions were higher for exportation rather than importation of the containers due to more shipping by land (see fig. 2.5).

**In total, 29,049 kg CO<sub>2</sub>e were emitted for the shipping, both import and export, of the sailboats.**

Figure 2.5: Emissions for the import and export of boats.



## 2.10 Carbon Emissions

When calculating the carbon emissions for the YSWC, the GT included the CO<sub>2</sub>e emissions from the following activities:

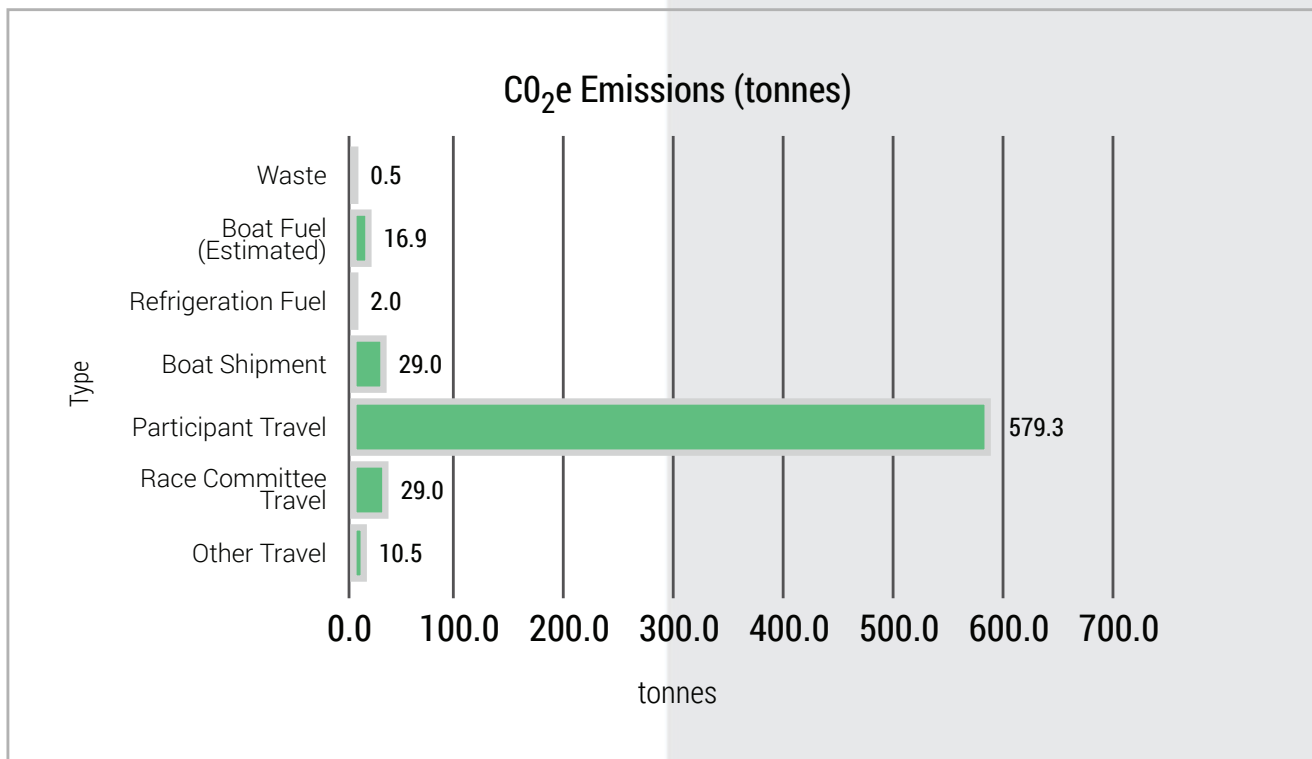
- Container shipping of sailboats to the event
- Fuel (diesel and gas) used for support boats during the event,
- Fuel (diesel) used for portable refrigeration units
- Waste emissions (landfill, recycling, and compost)
- All travel (flights and driving) from non-local competitors, volunteers, race committee and officials.

Electricity is not included in the CO<sub>2</sub>e emissions because we could not measure the electricity used at the Emerald Beach Hotel, boat park, or the CCYC.

**A total of 666.14 tonnes of CO<sub>2</sub>e emissions were produced during the event from the above listed activities. The majority of the CO<sub>2</sub>e emissions came from participant travel. Looking at the waste emissions, which accounts for only 0.5 tonnes of CO<sub>2</sub>e emissions, it is important to note that due to recycling and composting we saved over 22 tonnes of CO<sub>2</sub>e emissions (see fig. 2.6).**

Note: Competitor travel includes flight and driving emissions by sailors, team leaders, and coaches. Race committee travel includes flight and driving emissions from members of the race committee that traveled to Corpus Christi for the event, but it does not include local race committee members. The “Other Travel” emissions include the flight and driving emissions from the World Sailing staff and media team which attended the event. (Appendix VI)

Figure 2.6: All CO<sub>2</sub>e emissions.





1. The LOC had to individually track down the flight itineraries and driving itineraries for all competitors, coaches, team leaders, race officials, and volunteers AFTER the event was over. In the future, World Sailing and the LOC need to require every person involved in the event to send complete travel itineraries prior to the regatta. Also, for people driving to the event, World Sailing and the LOC need to require information on the type of car driven.

2. In future years, carbon credits might be purchased to offset the CO<sub>2</sub> emissions generated by travel and the event. One source for offsetting the carbon footprint and supporting industry-leading carbon reduction projects is [Carbonfund.org](https://www.carbonfund.org).

## 2.11 Other Measures Taken

### REEF SAFE SUNSCREENS

Competitors were encouraged to use reef safe sunscreens. Sunscreens with oxybenzone, and octinoxate are proven to bleach and kill coral and contaminate our oceans. Sunscreens with mineral filters, such as zinc oxide and titanium dioxide are reef safe. The GT partnered with Harken Derm to distribute material on reef safe sunscreens to competitors and donated Harken Derm sunscreen to race management and volunteers.

**H A R K E N D E R M**

### BOAT WASH

Competitors were heavily encouraged to wash their boats with water only and no soaps. The LOC posted the “no boat soap” mandate on the event website. The venue also had signs stating: “Please clean your boat using water only.”

The volunteer in charge of the boat wash down area was required to report if any soap was used. There were no reports of soap in the wash-down area. Also, there were no complaints from competitors about not using soap. One coach did send a complaint to the GT about not being able to use soap.

*NOTE: Technically, the LOC could not penalize people if they used soap. World Sailing would need to officially change the rules of the YSWC in order to include penalties for such actions.*

**The GT measured that 59,317 L of non-potable water were used in the boat park specifically for washing boats. There were 220 boats total and 6 days of sailing. 44.93 L of non-potable water per day was used to wash each boat.**



## STORM DRAINS

Prior to the regatta, all storm drains in the venue and surrounding area were marked with “No Dumping / Only Rain in the Drain” medallions creating a visual reminder to citizens that whatever goes into that storm drain system will end up directly in the Corpus Christi Bay.

**123 storm drains in the area were labelled.**

This initiative was completed by members of the Texas Coastal Bend Chapter of the Surfrider Foundation.

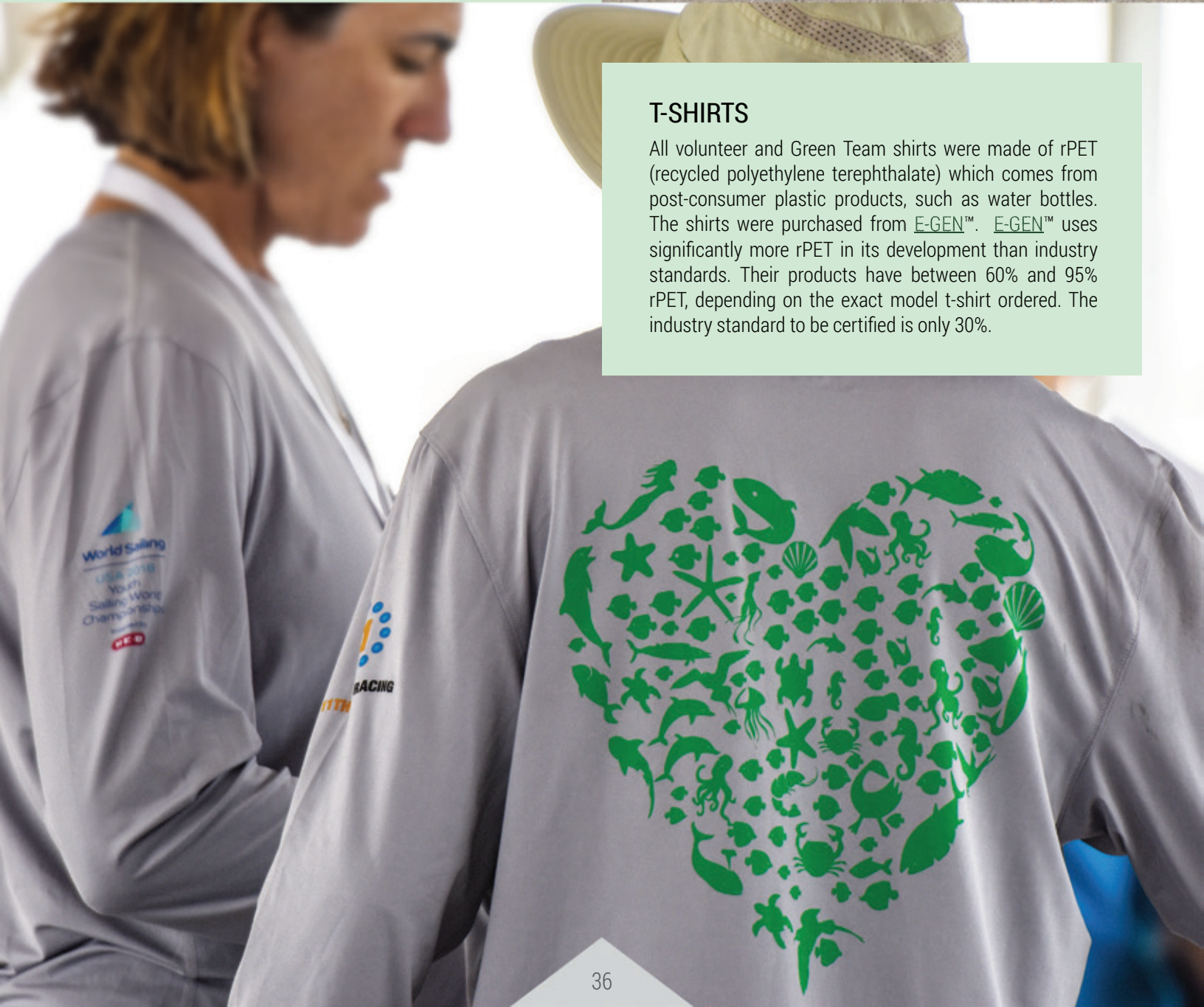
## HOTEL SHEETS AND TOWELS

Notes were put in hotel rooms notifying regatta guests that sheets would not be changed during the week-long stay and that towels would not be washed unless specifically requested; thereby encouraging water savings.



## T-SHIRTS

All volunteer and Green Team shirts were made of rPET (recycled polyethylene terephthalate) which comes from post-consumer plastic products, such as water bottles. The shirts were purchased from [E-GEN™](#). [E-GEN™](#) uses significantly more rPET in its development than industry standards. Their products have between 60% and 95% rPET, depending on the exact model t-shirt ordered. The industry standard to be certified is only 30%.



A large teal arrow graphic pointing to the right, centered on the page. The arrow is composed of several overlapping layers of teal, creating a sense of depth and movement. The text 'Behavioral Habits' is written in white, sans-serif font across the middle of the arrow.

# Behavioral Habits

# BEHAVIORAL HABITS

## 3.1 Sustainability Survey

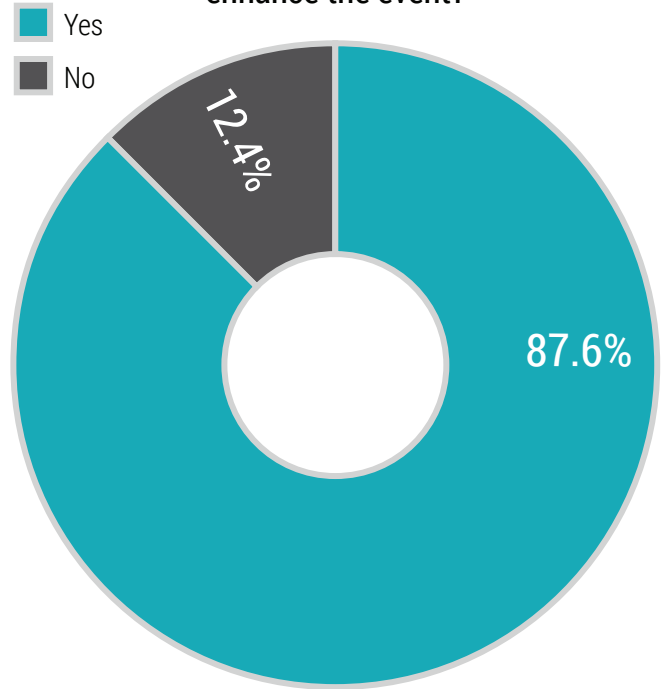
A pre-race sustainability survey was created and distributed to participants, team leaders, coaches, and volunteers to gauge sustainable habits, receiving 340 responses, a **53.9% response rate**. This survey included questions regarding demographics (i.e. gender, age, nationality), individual sustainable practices (use of single-use plastics, recycling, composting, etc.), and knowledge of certain environmental issues (i.e. invasive species, reef safe sunscreen). These surveys provided baseline data on levels of environmental awareness.

After a week of educating competitors through conservation booths, environmental movies, presentations, and artwork, a post-race survey was distributed to participants, team leaders, coaches, and volunteers. Unfortunately, the post-race survey only received 93 responses, a 14.7% response rate. This data was then compared to the initial surveys to determine whether a positive trend was made. The post-surveys also allowed us to collect comments on the activities during the event and gauge where improvements could be made. Both the pre and post-race surveys and data can be found in Appendix VII.

Reviewing the pre and post-race surveys showed a measurable change in planned sustainability habits. The pre-race survey revealed that many people (>90%) own a reusable water bottle and that >70% use it always or even often. The top reasons listed as to why the surveyed do not use their reusable water bottle is that they forget (72%), it's inconvenient (13%), or it's too heavy (5%).



Did the focus on sustainability enhance the event?



Would you like to see a sustainability and ocean conservation focus at all sailing regattas?

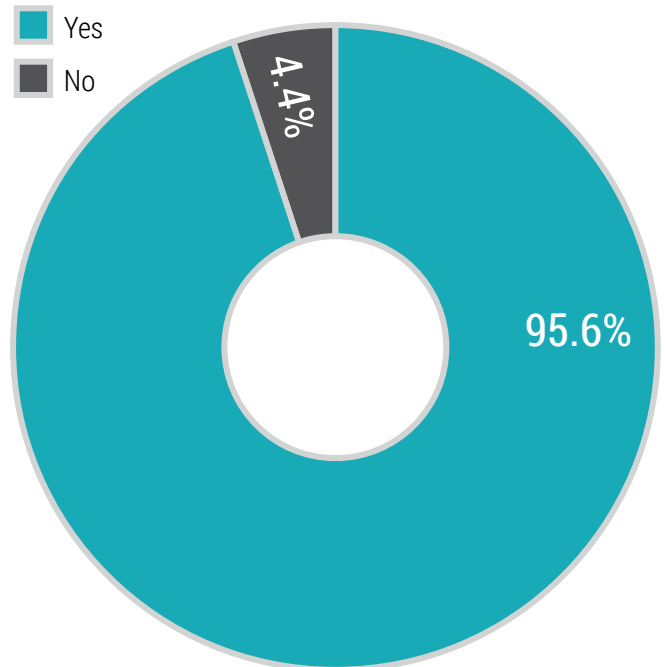


Figure 3.1: Survey response – success of sustainability theme at regattas.



Based on the post-race responses, the event's focus on sustainability encouraged >60% of the surveyed to use their reusable water bottle more after returning home. The event's theme also encouraged >80% of the surveyed to stop buying single-use plastic completely and >40% to recycle.

With this being the first YSWC to incorporate a detailed, all-encompassing sustainability component, the two questions we were most interested in were: 1) Did the focus on sustainability enhance the event, and 2) Would you like to see a sustainability and ocean conservation focus included in all sailing regattas?

- 87.6% thought sustainability enhanced the event
- 95.6% would like to see sustainability initiatives at all sailing events (see fig. 3.1)

1. Raffle off prizes for those who filled out the Pre-Race Survey encouraged more people to fill out the survey and is strongly recommended.

2. The post-race survey was created during the event which caused a short turn-around time. Future surveys should all be created before the racing begins so there is plenty of time to make changes and ensure it matches the pre-survey.

3. Most survey responses of "did not attend events" or "I did not learn anything" from the activities and presentations were from race committee members or volunteers stating that they did not know of the activity or were unable to attend because of working the event. Though a big focus of the event was educating the next generation, as in the sailors competing, it is important to include everyone that is involved in the event by advertising the activities to volunteers and race committee and giving them the opportunity to attend.

4. Reviewing comments about composting revealed that some attendees were still confused on the difference between recycling or composting. It appears that the starch cups used, though compostable, looked like plastic. This led some people to believe that plastic is compostable. Better explanations by volunteers and signs at waste stations potentially could have prevented this confusion.

5. Some comments suggested focusing on more than just plastic and waste management, such as reducing electricity usage and gas emissions.





## 3.2 Clean Seas Campaign Pledge

The 2018 YSWC adopted the UN Environment Clean Seas Campaign as their call to action for all participants, volunteers and community members. UN Environment launched #CleanSeas in February 2017, with the aim of engaging governments, the general public, civil society and the private sector in the fight against marine plastic litter. The YSWC incorporated the CleanSeas campaign in signage surrounding the airport art installation and by providing access to a large 49" monitor/touchscreen display linked to the Clean Seas Pledge Website. From this touchscreen display, viewers could learn about the Clean Seas Campaign and take the pledge on

the monitor. This monitor was located in the dining area of the hotel available for all sailors, coaches, and volunteers. On Wednesday night, the monitor with the pledge information was moved to the Corpus Christi Art Center for the public to view and access, in conjunction with the local Farmer's Market and the presentation of Sheila Rogers "Oceans of Plastic" exhibit.

43 people surveyed in the post-race sustainability survey stated that they took the pledge for #CleanSeas (see fig. 3.2). This is 45.2% of the people who filled out the post-race sustainability survey.



1. The #CleanSeas monitor/ touchscreen needed to have speakers connected to it, so that people could better hear the movies which played between people taking the pledge.

2. The LOC should have contacted the UN Environment earlier to notify them that the YSWC's "Call to Action" was the Clean Seas campaign. With earlier contact and better planning with the UN Environment, the YSWC may have been able to have their own link to track the exact number of people who took the pledge as a result of the regatta and it would have allowed better coordination of promotion between the UN Environment and the YSWC.

Did you take the UN pledge to fight for the #CleanSeas?

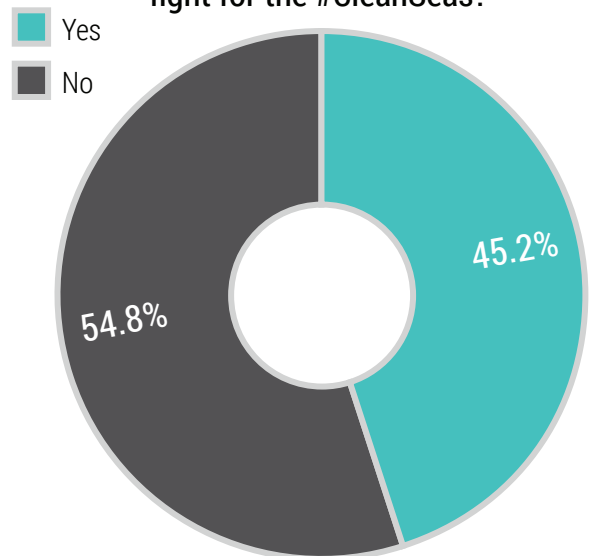


Figure 3.2: Responses to pledges for the #CleanSeas program during the YSWC.



# FIRST SUSTAINABILITY AWARD EVER AT YSWC

## 3.3 Sustainability Award

The GT recommended to World Sailing to include a Sustainability Award at the 2018 YSWC, an award that had never been given before. World Sailing agreed, and a Sustainability Award was presented at the Closing Ceremony.

The Sustainability Award recognized a competitor, team, or volunteer who embraced this year's Youth Sailing World Championships' themes of Sustainability and Ocean Conservation. Award nominees will have demonstrated one or more of the following sustainability actions during the regatta: active participation in sustainability events/activities and subsequent discussions; adoption of one or more sustainable behaviors; encouragement of others to adopt sustainable behaviors; and/or increased awareness about sustainability and ocean conservation.

An overwhelming number of competitors voted for the "volunteers" as a group. The GT gave the award to Rosemary Vaseliades who was an active participant in keeping the venue clean daily and encouraged others to do the same. Most importantly, however, Rosemary had a noticeable change in behavior throughout the event. Before the event Rosemary admitted to rarely, if ever, recycling in her home. By the end of the event, Rosemary, an assistant principal at a local junior high school, was discussing with the GT how to incorporate several of the sustainability initiatives into her school, including getting rid of single use water bottles and getting rid of the Styrofoam lunch containers in the cafeteria. Through the education activities of the YSWC, Rosemary had changed her thinking and begun to make new habits.



# Education Programs



# EDUCATION PROGRAMS

## 4.1 Opening Ceremony: Dr. Sylvia Earle

The opening ceremony commenced on July 15, 2018, when the 382 participating youth sailors were led along the Corpus Christi seawall by a mariachi band in the Parade of Nations. The Harte Research Institute for Gulf of Mexico Studies at Texas A&M Corpus Christi, along with 11th Hour Racing, sponsored the opening ceremony speaker Dr. Sylvia Earle. Dr. Earle is a renowned American marine biologist, explorer, author, and lecturer and a Founding Advisory Board Chair for the Harte Research Institute. As Time Magazine’s first “Hero for the Planet,” Dr. Earle spoke about her knowledge of sustainability and conservation acquired from her numerous years of diving and research in the marine biology field. Over the span of her career, Dr. Earle has shared her knowledge globally through over 200 publications and numerous lectures across 90 countries.

While speaking at the opening ceremony, Dr. Sylvia Earle was able to further spread her knowledge about marine conservation by discussing the sustainable practices to be executed by the YSWC. This set the tone for the event and explained why it is important for sustainability to be the main objective. Based on the post-race survey many were impressed by her passion and knowledge of ocean conservation.

Approximately 900 people attended Dr. Earle’s talk at the opening ceremony.



1.

Future speakers for YSWC opening nights need to be given an exact time frame for speaking with no exceptions. Dr. Earle’s speech was very long, particularly for the large number of non-English speaking young people in the audience.

2.

Translations in Spanish or other languages would have been helpful.



## 4.2 Beach Clean Up

Beach cleanups can not only be a positive impact on the environment but also be very educational. On July 8th, a week before the event, the LOC held a cleanup on McGee beach near the regatta, sponsored by the Texas Coastal Bend Chapter of the Surfrider Foundation. During the cleanup, eighteen volunteers worked to properly dispose of waste, increasing public awareness of pollution on local beaches. This waste was collected and studied to determine the type and amount of waste accumulated in the area. Pictures of the waste and volunteers were posted via social media and shared to help further educate the public about the current environmental issues and how they can help keep the beaches clean. Two days after the YSWC ended another beach clean-up was conducted. Pollution that found its way back on McGee Beach was again picked up and analyzed.

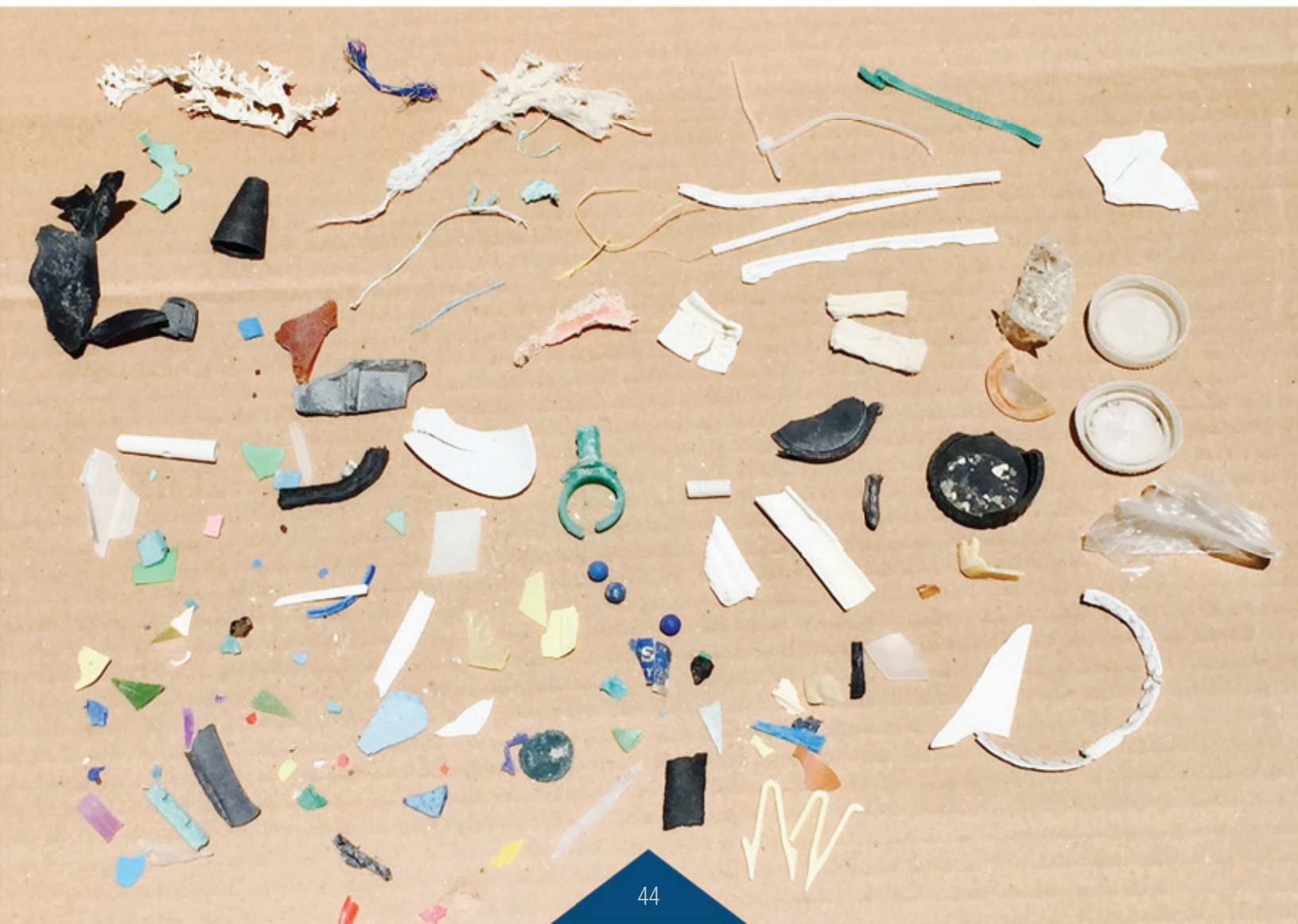
### JULY 8TH CLEANUP

Heavy rain occurred the day before the cleanup, leaving a large puddle on the beach and causing volunteers to focus only on the drier areas of sand. Most of the large trash items had been removed by the City's routine beach raking, yet volunteers managed to pick up 25 bags of trash. Most of the trash consisted of small plastics less than 50mm in length. The most common found items were plastic bottle tops, zip ties, and plastic tooth picks.

An attempt was made to use the Microplastic Filtration System made by [Sea Turtles Forever](#). Dry conditions are best for the filter and since the sand was still moist from the rain, volunteers had limited success.

### JULY 22ND CLEANUP

Only the fenced-off area of McGee Beach, where the competition had taken place and open only to the event participants and volunteers, was cleaned on July 22. Thanks to the ongoing cleanup and use of trash cans on the beach during the event, only two bags of large trash items were picked up.



The microplastics filter was used in two areas within the fenced competition area. Due to a shortage of volunteers and limited time for the cleanup, it was decided to reduce the planned 400 square feet (37.16 sq. meters) areas to 80 square feet (7.43 sq. meters).

Due to the wet beach conditions on July 8th, it is not possible to compare the amounts of trash picked up on the 8th and the 22nd, however, the smaller amount picked up on the 22nd indicates that the ongoing cleanup and use of trash cans on the beach during the YSWC was effective in reducing the amount left at the end of the event. Most of the plastics found with the microplastic filter looked weathered and appeared to have been deposited on the beach before the YSWC.



### 4.3 Wildlife Plan

A local wildlife plan was created by a representative from the Texas Parks & Wildlife for regatta participants. The plan included information on native species of birds, turtles, and marine life; proper procedures to follow when encountering wildlife; and photos of native species. An infographic of critical information was printed on recycled cardboard signs in several sizes. These were prominently displayed at all venues. The signs after the event were distributed to several local schools, the Texas State Aquarium, and the Harte Research Institute of Gulf of Mexico Studies.

The CC Municipal Marina also has a large wildlife plan next to the fuel dock, with numbers to call for stranded or injured wildlife.

# What to Do If You Have a Wildlife Encounter If you encounter an injured...

## Mammal

- Call the local stranding network at 1-800-9-MAMMAL
- DO NOT return the animal to the sea.
- Keep people and pets away from the animal.
- Do not leave the animal; they need comfort and cannot keep themselves upright.
- Relieve pressure on fins by digging holes under them. To relieve pressure on lungs you can dig a pit under the mammal and fill the pit with water.
- Keep the animal cool and wet by splashing water on the skin. Avoid getting water in the blowhole.
- Apply wet towels or T-shirts and provide a shade if possible.
- Keep the blowhole free of obstruction and take care not to cover the dorsal fin, flippers or tail.
- Apply sun screens or zinc oxide, NOT suntan oil. The dolphin's skin is very sensitive and can burn severely.
- Apply ice packs to the dorsal fin, pectoral flippers, or flukes to keep the animal from overheating, but do not let the ice contact the skin directly.
- If the animal is in the surf, support it upright. Keep water out of the blowhole. If possible, carefully move mammal into shallow water but keep it in the water.
- Be careful around the powerful tail and mouth.



Bottlenose



West Indian Manatee

## Bird

- Call the Amos Rehabilitation Keep at 361-749-6793
- If the bird must be captured before help arrives then use a large towel or sheet and throw it over the bird. Most birds will immediately calm down long enough to pick them up and put them in a secure area, such as a pet crate or box.
- Do not rescue shorebirds with sharp beaks. eye protection is needed when handling these birds. Their defense mechanism is to lunge at the face and eyes.
- Keep secured bird in a dark, quiet area until help arrives or it can be taken to the appropriate location.
- Please do not try to feed any bird you rescue.



Brown Pelican



Black Skimmer

## Turtle

- Call the area coordinator Donna Shaver at 361-949-8173 ext 226 or 1-866-TURTLES
- Report the turtle's location, size, proximity to the surf, and condition (alive or dead).
- A stranded sea turtle is one that is found washed ashore or floating, alive or dead. If it is alive, it is generally in a weakened condition.
- If the turtle is alive, stay at the site until an official arrives if possible.



Green Sea Turtle



Kemp's Ridley Sea Turtle



## Animal Care and Rescue Resources

Texas Marine Mammal Stranding Network  
1-800-9-MAMMAL

Texas Sealife Center  
361-589-4023

Amos Rehabilitation Keep  
361-749-6793

Sea Turtle Stranding & Salvage Network  
1-866-TURTLES

## 4.4 Movie Night

*Smog of the Sea*, sponsored by the Texas Coastal Bend Chapter of the Surfrider Foundation, with a Q & A session, was shown at the Emerald Beach Hotel ballroom after dinner one night. The intent was to show the sailors the extent of the ocean plastic pollution problem in a relatable way. Featuring musician Jack Johnson, Dr. Marcus Ericksen with [5 Gyres](#) and various watersports celebrities, the movie documents a sail on the schooner Mystic as the crew researches plastic pollution in the waters of the Sargasso Sea. After they sieve the water and sort the haul, the crew learns that “garbage patch” does not accurately describe the gyres of plastics in the oceans. Instead, a smog of microplastics permeates the world’s oceans, with trillions of nearly invisible plastic pieces making their way up the food chain. No questions were asked during the Q & A session.



1. Film sub-titles in other languages would have been helpful for non-English speaking viewers.
2. Popcorn machines were a HUGE success and brought in more people to watch the film.
3. Originally, the GT planned to show *Plastic Oceans*, instead of *Smog of the Sea*. The shorter *Smog of the Sea* movie was the correct length, with a running time of 30 minutes.



## 4.5 Conservation Booths

Seven regional organizations (listed below) conducted live engagements through mini-exhibits associated with the dinner hour. Texas State Aquarium Engagement Specialist Melanie Kudra described these low-key education offerings as, **“helping to create a visible and constant presence for conservation.”**

Further, “Our displays of plastic consumed by sea turtles helped the sailors understand why we’re asking them to compost at every meal.” Kudra, as well as exhibitors from the Coastal Bend Bays & Estuaries Program, remarked that the mini-exhibits prompted extended conversations with those who wanted to know more.

Graduate students from the Oyster Recycling Program sponsored by the Texas A&M Corpus Christi Coastal Bend Conservation & Restoration Ecology Lab may have put it best when describing their interactions with the sailors as “...cool and unique opportunities to talk with youth from a number of different countries.” The students felt they were able to elicit “a high degree of interest from kids with no background in marine conservation or oyster recycling.” For example, one student reported she spoke with a girl from the Cayman Islands who remarked they didn’t have oysters in the Cayman Islands but was able to understand the simplicity of oyster recycling and the importance of such activities. Their mini-exhibit was “a way to engage kids who are so connected to their bays through sailing, but don’t yet connect to the bays’ ecology, with meaningful and personal conservation activities wherever they live.”

MINI-EXHIBIT THEME	ORGANIZATION
Rookery Islands	> Texas Parks and Wildlife Department
Sea Turtle Conservation	> Texas State Aquarium
Marine Debris in the Oceans	> Mission-Aransas National Estuarine Research Reserve
Smog of the Sea Movie Screening	> Texas Coastal Bend Chapter - Surfrider Foundation
Oyster Recycling	> Texas A&M Corpus Christi Coastal Bend Conservation & Restoration Ecology Lab
Composting	> Islander Green Team - TAMUCC
Importance of Bays and Estuaries	> Coastal Bend Bays & Estuaries Program



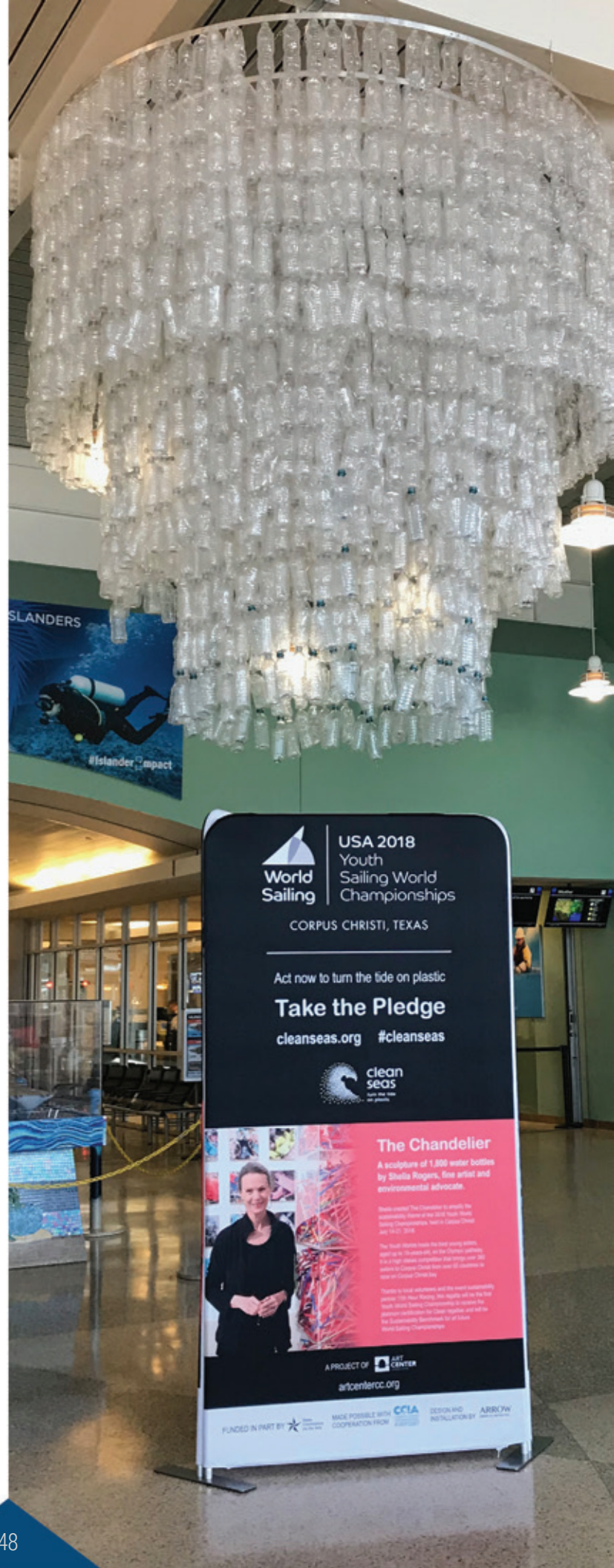
## 4.6 Art Initiatives

The Art Center of Corpus Christi received matching funds from the Texas Commission on the Arts to promote environmental awareness and encourage ocean conservation to Youth World participants and the local South Texas community.

The blitz of art activities included:

1. Plastic bottle art installation at the Corpus Christi International Airport
2. Oceans of Plastic gallery exhibit by environmentalist artist
3. “The Bottom Line” chalk mural
4. Farmers Market Regatta night
5. Free family art programs

International participants and out of town visitors experienced the 2018 Youth Worlds “Sustainability and Ocean Conservation” theme the moment they step off their plane at the Corpus Christi International Airport. The site-specific sculpture by Corpus Christi artist and environmentalist, Shelia Rogers mimics a crystal chandelier but was created from 5,000 plastic water bottles found on beaches. The 10’ x 22’ artwork spans half of the ceiling height. Numerous social media posts and videos in front of the signage were posted by visiting sailors. The #plasticfree and #skipthestraw message of this installation was sent around the world. **The airport installation and signage will be on site for six months and will reach well over 400,000 individuals.**



The “Oceans of Plastic” exhibition of marine debris artwork by Shelia Rogers was on display at the Corpus Christi Art Center throughout the month of July.

Approximately 200 people attended the artist meet-and-greet at the opening reception. Weekly small group gallery talks were given to Art Center Campers and a senior citizen group, reaching an additional 50 people. All visitors received a list of ten small changes to begin eliminating single-use plastics in their lives. The exhibit was on display for one month. An estimated 2500 people viewed the exhibit.

The creation of the 100’ x 10’ chalk mural the week of the regatta surprised the artists with its popularity by beachgoers.

This mural was located on the large retaining wall between the Emerald Beach Hotel and the Water’s Edge Boat Park. Sailors walked by the mural on their way to and from the boats and the hotel. In addition to about a dozen sailors who colored in squares, approximately 80 individuals from around the US and Texas participated in the making of the mural titled *The Bottom Line*, referencing a quote by Sylvia Earle.

Throughout the month of July, Family Art Time ocean themed projects engaged over 230 individuals who were not involved with the YSWC. All of these visitors also received the list of ten small changes to begin eliminating single-use plastics in their lives.

Staff and volunteers report that public interest was genuine and supportive of the message to eliminate dependency on single-use plastics.

The highly visible and engaging art programs reached far beyond the stated goal of “including an environmental education component in the regatta festivities.” The projects inspired people – including all the staff and volunteers involved in the production of the programs!

The Art Center was delighted to partner with the YSWC Green Team. The Art Center highly recommends creative partnerships to amplify “Green” messaging at Clean Regattas.



# What sustainability actions/ activities did you participate in during the event?

- Brought own water bottle
- Interacted with conservation groups at dinner in hallway
- Watched *Smog of the Sea* on movie night
- Went to the Art Center for Sheila Rogers Oceans of Plastic Exhibit
- Helped create Art Mural on wall, entitled "The Bottom Line"
- Noticed chandelier made of plastic bottles located in Corpus Christi Airport
- Noticed Solar Compost Machine in boat park
- Used only Reef State sunscreen
- Other
- Did not participate

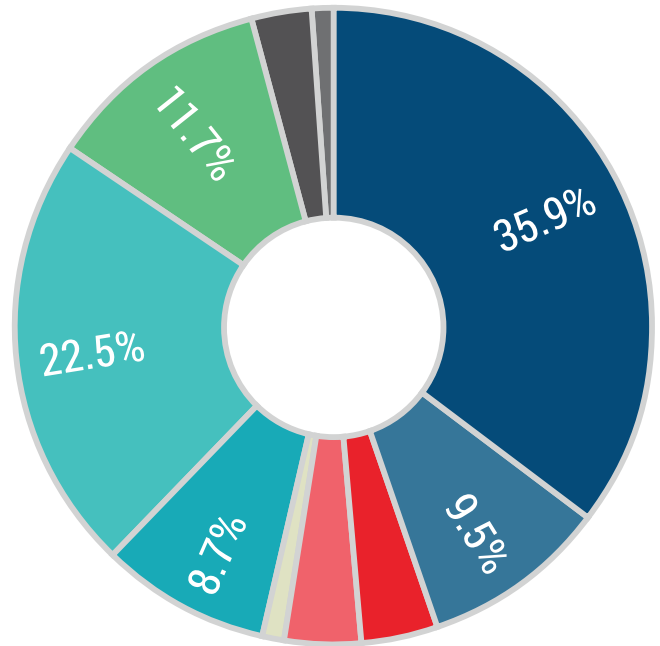


Figure 4.1: Participation in sustainability activities. (Information collected from the post-race survey)

## 4.7 Solar-Powered Compost Machine

During the Championships, the Islander Green Team from Texas A&M Corpus Christi had a solar-powered compost machine on display in the boat park for sailors, coaches and volunteers to view. The solar-powered compost machine highlighted visually how food waste can be turned into compost which nourishes the soil - growing the next generation of crops and improving water quality. Composting transforms the potential landfill into an important product. According to the Environmental Protection Agency, the largest contributor to landfill is food waste.

In addition to drawing attention to the benefits and the practical how-to aspects of composting, this exhibit demonstrated student collaboration between different

academic departments. In 2017, The Islander Green Team presented several project ideas to a Texas A&M University (TAMUCC) engineering class. Within one year, TAMUCC student engineers completed the construction of the solar-powered composter. This composter was designed to convert organic waste into compost within 2-3 weeks, as opposed to 12 weeks with our traditional compost methods. Powered by solar energy, the compost is mechanically turned daily. Since its construction, this vessel has successfully composted over 1,000 pounds of campus food and yard waste, which has all been used to help fertilize the TAMUCC campus gardens and landscape. Visitors learned how technology is critical to creating sustainable practices.



## 4.8 Yacht Club Staff Education

The entire staff of the Corpus Christi Yacht Club were required to attend a power-point presentation on the sustainability initiatives being implemented at the YSWC. This meeting was mandatory for all staff – administrative and financial office staff, waiters, chefs, line cooks, dishwashers, maintenance personnel, dock masters, etc. The goal of the meeting was to educate the CCYC employees about the goals of the regatta and the role that each employee had in the success of accomplishing these goals. The GT wanted to create enthusiasm among the staff and encourage them to go above and beyond.

In the meeting, the majority listened intently and asked questions. The staff really became excited about making the Platinum (highest) level for Sailors for the Sea. They wanted to reach that lofty goal, and this was the driving force behind their enthusiasm.

This staff meeting was CRITICAL to accomplishing the Sustainability goals of the YSWC. In particular, the staff needed to understand and embrace the composting measures and the no single-use plastic policy. The staff, in addition to volunteers, were fully responsible for ensuring that the material collected for composting was not contaminated, that recycling and waste were disposed of properly, and that the no single-use plastic policy was enforced. Unknown to the staff, an award will be given at the annual CCYC awards meeting for the staff member who most embraced the sustainability initiatives of the YSWC.



1. The GT highly recommends that any staff and all volunteers are educated about the sustainability initiatives at the event. Without the CCYC staff's help and enthusiasm, the sustainability goals for the YSWC would not have been accomplished.

2. It is important to do the presentation in a small group with a mixture of people who work in different areas. The small group atmosphere allowed for greater interaction. Including people from different work areas, allowed the staff to see how the actions of each department affected the end goals.



# Gender/Nationality Representation

# GENDER/NATIONALITY REPRESENTATION

Figure 5.1: Gender representation of sailors volunteers, race committee, and judge/jury.

	Male	Female
Sailors	205	177
Shore Volunteers	116	152
Race Committee	72	30
Judge/Jury	5	3
International Course Reps	2	2
Course Race Officers	3	1



## 5.1 Gender Representation

Sustainable practices support not only ecological practices but also social aspects such as gender representation. In the 2018 YSWC women represented 46.3% of sailors and 56.7% of shore volunteers (see fig. 5.1). Men represented 53.7% of sailors and 51.7% of volunteers.

It is important to note that the Regatta Chairman and the Fundraising Chairman were both women. Major Organizing Authority committees were also led by women (housing, registration, jury secretary, opening closing ceremonies, GT.)

## 5.2 Emerging Nations

World Sailing sponsored an Emerging Nations Program for the YSWC. While this was not an initiative unique to the YSWC in Corpus Christi, the GT feels that the information needs to be included in this report.

The YSWC Emerging Nations Program aims to increase the number of sailors and Member National Associations (MNAs) participating at the YSWC, with the aim of narrowing the performance gap and promoting world-wide competition. This is done by providing support to sailors including world class coaching, financial support and event support. (see fig. 5.2).



Twenty sailors were selected to attend the Emerging Nations Program, 10 females and 10 males. All sailors on the program were invited to attend a training clinic in the days running up to the championships, where they received coaching and support to help them during the championships.

World Sailing covered the entry fee for each sailor into the event (which then covers accommodation, food, boat charter and transfers) as well as assisting with flight costs. World Sailing also covered all costs associated with the training clinic including additional boat charter, coaching costs and food.

Two coaches were provided for the clinic and the championships to ensure all Emerging Nations had access to a coach. These were Rob Holden, World Sailing Training Delivery Manager from South Africa and Tania Elias Calles (MEX), four-time Olympian.

Attendees were selected through a two-fold process. Firstly those who had attended the program in Sanya, China, and were still age available for this year's championships filled 16 places. Then there were four spaces available for applications from all emerging nations. Information on the application process was sent via email to all emerging nations and advertised on the Youth Worlds social media channels. MNA's could apply for places and were asked to submit a sailing CV and video footage of the sailor completing some tasks, from here the final spaces were filled.

CCYC members voluntarily hosted and fed all sailors and coaches who participated in the Emerging Nations Program during the pre-Championship clinic.



# Legacy Programs



# LEGACY PROGRAMS

## 6.1 Texas Sailing Association (TSA)

The GT wanted to use the 2018 YSWC as a springboard event to promote Clean Regatta Initiatives throughout the state of Texas. They teamed up with the Texas Sailing Association (TSA) to use the TSA platform and the TSA Youth Circuit to educate sailors about ways to protect their local waters. The TSA is part of US Sailing Association's regional structure and has 40 member clubs throughout the state.

The TSA formed a "green team" within their organization and incorporated Sustainability messaging on their website. They pledged to work with Sailors for the Sea and bring Clean Regatta practices to all Texas Youth Circuit Regattas. **TSA is the FIRST STATE Sailing Association to adopt the Clean Regattas Program** and to use the youth circuit to spread information about ocean conservation and other environmental issues.

## 6.2 Corpus Christi Sustainability Event Plan

The GT created a Sustainability Event Plan to provide guidelines and resources for other organizations in Corpus Christi to run sustainable events. The GT's goal with this plan is to encourage events to voluntarily make their events more

sustainable and to take greater responsibility for protecting and improving the environment in public event settings.

This plan is meant to be a living document that can be updated as new knowledge and developments related to sustainability are learned. Hopefully, others will continue to add to the plan so that future events and the community may benefit.

This initial Corpus Christi Sustainability Event Plan focuses on the environmental and educational aspects of Sustainability. The GT hopes that this document will continue to develop and include more information on economic and social aspects of sustainability in the future.

## 6.3 Sustainability Report

The GT decided to publish a sustainability report referencing the Global Reporting Initiative (GRI) Standards to be used as a benchmark for future sailing and sporting events.

World Sailing will use this report and its findings to benchmark key figures and influence similar activities at future events. Crucially, lessons learned will be passed onto future Local Organizing Committees, and they will be expected to demonstrate continual improvement.



TSA is the FIRST STATE Sailing Association  
to adopt the Clean Regattas Program

### GREEN TEAM MEMBERS

**Elizabeth Kratzig**

Green Team Co-Chair, Past Competitor in the Youth Sailing World Championships

**Dr. David McKee**

Green Team Co-Chair, Professor Emeritus of Marine Biology, TAMUCC

**Adriana Leiva**

Natural Resource Specialist, Texas Parks and Wildlife

**Celina Pulcher**

Program Outreach Coordinator for Corpus Christi Dept. of Solid Waste Management

**Dianna Bluntzer**

Managing Director Corpus Christi Art Center

**Dr. Jennifer Pollack**

Faculty sponsor Marine Science Graduate Student Organization, Harte Research Institute for Gulf of Mexico Studies at TAMUCC

**Jace Tunnell**

Director of the Mission-Aransas National Estuarine Research Reserve

**Katherine Martin**

President of the Marine Science Graduate Student Organization TAMUCC

**Leslie Peart**

Vice President for Education and Conservation, Texas State Aquarium

**Melissa Zamora**

Past President Islander Green Team of Texas A&M University Corpus Christi

**Neil McQueen**

Vice-Chair of the Texas Coastal Bend Chapter – Surfrider Foundation

**Rene Garza**

Corpus Christi Marina

**Rae Mooney**

Project Manager at the Coastal Bend Bays and Estuaries Program

**Sheila Rogers**

Artist, and Conservationist

## APPENDIX II: Sustainability Partners

### OFFICIAL SUSTAINABILITY PARTNER:



11th Hour Racing establishes strategic partnerships within the sailing and maritime communities to promote collaborative, systemic change benefitting the health of our ocean – one degree at a time. Since 2010, 11th Hour Racing has been harnessing the power of sport with an innovative and comprehensive approach through three primary areas of engagement: Partners, Grantees, and Ambassadors.

[www.11thhourracing.org](http://www.11thhourracing.org)

### GREEN TEAM PARTNERS:

[Art Center of Corpus Christi](#)

[Coastal Bend Bays & Estuaries Program](#)

[Corpus Christi Department of Solid Waste Management](#)

[City of Corpus Christi Marina](#)

[Harte Research Institute for Gulf of Mexico Studies at Texas A&M University-Corpus Christi](#)

[Harken Derm](#)

[Islander Green Team](#)

[Mission-Aransas National Estuarine Research Reserve](#)

[New Earth Compost](#)

[Sailors for the Sea](#)

[Texas Coastal Bend Chapter – Surfrider Foundation](#)

[Texas Parks & Wildlife](#)

[Texas Sailing Association](#)

[Texas State Aquarium](#)

[University of Texas Marine Science Center-Port Aransas](#)

[Yeti](#)

## APPENDIX III: Calculations

This table shows how each measurement and calculation was done to measure waste management, water usage, fuel usage, and carbon emissions. All conversion factors were gathered from the UK Government Greenhouse Gas (GHG) Conversion Factors for Company Reporting.

ACTIVITY	TYPE	HOW IT WAS CALCULATED
Waste Management	Landfill, Recycle, Compost	The weight of each waste type was measured in pounds by the receiving company. This amount was converted to tonnes before any calculations.
Water Usage	Water	Water usage was measured in gallons, later converted to liters, using gauges on the appropriate hoses. "On-water" usage included water and ice from the Water Monster located at the CCYC while "on-land" usage included water and ice used in both the Water Monsters and Gatorade stations in the boat park.
	Ice	Ice usage, which included ice added to Water Monsters and Gatorade stations and ice used to cool water bottles and 5-gallon jugs, was measured in pounds, converted to kilograms. Knowing water has a density of ~1,000 kg/m <sup>3</sup> , the kilograms were then converted to liters.
Fuel Usage	Gasoline and Diesel	Fuel was measured in two ways, 1) the total gallons purchased during the YSWC and 2) the estimated gallons of fuel used each day of the YSWC. All gallons were then converted to liters for further calculations.
Carbon Emissions (kgCO <sub>2</sub> e)	Travel-Flight	Flight emissions were calculated by obtaining flight itineraries from each person. The website <a href="https://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx">https://www.icao.int/environmental-protection/CarbonOffset/Pages/default.aspx</a> was used to calculate emissions for each individual.
	Travel-Driving	Driving emissions were calculated by first obtaining the driving route of each person and the type of vehicle (i.e. car, van, bus). Miles driven was calculated using <a href="https://www.gps-coordinates.net/">https://www.gps-coordinates.net/</a> .
	Boat Shipping	Multiple calculations were needed to calculate the carbon emissions for boat shipping as shipments were sent by boat and then driven. The weight of each container was recorded and converted to tonnes. The website <a href="https://sea-distances.org/">https://sea-distances.org/</a> was used to calculate the nautical miles of the known shipment route, which was then converted to kilometers. These two values were then used with the GHG factor for a Cargo ship with average containers. The containers were imported into Houston and then driven to Corpus Christi. Different calculations for the driving segments were used depending on if the container was full or empty. If full the GHG conversion used was for Articulated (<3.5-33t) average laden while Articulated (<3.5-33t) 0% laden was used when the containers were empty. The sum of these values were then taken for both import and export.
	Fuel	The liters of fuel were converted to kgCO <sub>2</sub> e using the GHG conversion for fuel usage to carbon emissions.
	Waste	The GHG conversion factor was used to convert tonnes of waste to emissions based on the type of waste and type of disposal.

## APPENDIX IV: Eco-Product Information

During the YSWC, breakfast, lunch and snacks were served on compostable tableware. The amount used, and costs of each item, are below.

PRODUCT TYPE	AMOUNT USED	COST PER UNIT (USD)	AMOUNT PER UNIT
Eco Lid for hot drinks	425	\$51.13	1000
Eco Lid Flat	160	\$80.37	1000
Eco Cup for Coffee	2,860	\$120.63	600
Eco Cup	3,870	\$150.36	1000
Eco Craft Paper Wrap	950	\$90.51	1000
Eco Plate 6"	1,875	\$74.12	1000
Eco Plate 9"	3,940	\$65.59	500
Eco Bowl	2,985	\$99.55	500
Eco Food Tray	975	\$37.82	1000

## APPENDIX V: Estimated daily fuel usage from all official boats.

BOAT TYPE	ENGINE TYPE	FUEL TYPE	ESTIMATED GALLONS USED PER DAY
32' Nordic Tug	hard power boat	diesel	4
40' Black Watch	hard power boat	diesel	6
40' Hinkley	hard power boat	diesel	20
42' Grand Banks	hard power boat	diesel	3
34' Benetau Oceanis	Sail	diesel	2
Catalina 315	Sail	diesel	2
Catalina 387	Sail	diesel	2
Hunter 45	Sail	diesel	2
J105	Sail	diesel	2
J44	Sail	diesel	2
SC 50	Sail	diesel	2
35' Beneatau	Sail	diesel	2
<b>TOTAL DAILY DIESEL</b>			<b>47</b>
17' Aqua Sport	hard power boat	gas	8
17' Whaler	hard power boat	gas	6
18' Boston Whaler Outrage	hard power boat	gas	6
18' Wellcraft	hard power boat	gas	8
20' Galaxy	hard power boat	gas	6
20' Wellcraft	hard power boat	gas	8
20' Whaler	hard power boat	gas	6
21' CC	hard power boat	gas	8
21' trawler	hard power boat	gas	3
22' CC	hard power boat	gas	6
22' CC	hard power boat	gas	5
22' CC	hard power boat	gas	7
22' CC	hard power boat	gas	6
22' CC	hard power boat	gas	6
22' CC Panga	hard power boat	gas	8
22' CC	hard power boat	gas	8
24' CC	hard power boat	gas	6
26' World Cat	hard power boat	gas	8
26' Shamrock	hard power boat	gas	6
27' Whaler	hard power boat	gas	20
30' Rybo Runner	hard power boat	gas	6
32' Contender	hard power boat	gas	6
34' Regulator	hard power boat	gas	30
5.8m VSR	RIB	gas	5
5.8m VSR	RIB	gas	5
5.8m VSR	RIB	gas	5
5.8m VSR	RIB	gas	5
5.8m VSR	RIB	gas	5
5.8m VSR	RIB	gas	5
Blue RIBCRAFT	RIB	gas	8
16' rib	RIB	gas	4
18' rib	RIB	gas	6
<b>TOTAL DAILY GASOLINE</b>			<b>235</b>

## APPENDIX VI: Travel Emissions

### Competitor Travel Emissions (sailors, team leaders, and coaches)

\* Two countries did not provide travel itineraries: Egypt and Peru. To calculate the emissions from these countries, we assumed that all travelers left from the capital of the country and flew the most direct route to Corpus Christi.

COUNTRY CODE	COACHES/ TEAM LEADERS	HELM/ CREW	TOTAL TRAVELERS	FLIGHT EMISSIONS (KG CO <sub>2</sub> )	DRIVE EMISSIONS (KG CO <sub>2</sub> )	TOTAL TRAVEL EMISSIONS (KG CO <sub>2</sub> )
AHO	--	1	1	830.3	--	830.3
ANT	2	4	6	5,027.0	--	5,027.0
ARG	3	13	16	19,364.7	--	19,364.7
AUS	3	14	17	34,865.7	--	34,865.7
AUT	1	3	4	5,318.2	--	5,318.2
BAH	1	1	2	1,088.0	--	1,088.0
BAR	--	1	1	1,326.8	--	1,326.8
BEL	3	4	7	8,256.7	--	8,256.7
BER	2	2	4	1,326.8	--	1,326.8
BIZ	1	1	2	1,060.8	--	1,060.8
BRA	2	12	14	18,037.6	--	18,037.6
CAN	3	10	13	9,978.3	67.8	10,046.1
CAY	1	1	2	986.8	--	986.8
CHI	1	10	11	11,016.4	--	11,016.4
COK	--	2	2	3,123.8	--	3,123.8
COL	--	2	2	2,203.3	--	2,203.3
CRO	3	8	11	15,219.5	135.6	15,355.1
CZE	2	6	8	9,779.4	--	9,779.4
DNK	2	9	11	13,364.9	--	13,364.9
ECU	1	2	3	2,499.0	--	2,499.0
EGY*	1	1	2	4,189.9	--	4,189.9
ESP	1	13	14	2,679.5	--	2,679.5
FIJ	1	1	2	2,888.3	135.6	3,023.9
FIN	2	8	10	12,530.7	--	12,530.7
FRA	3	14	17	20,319.4	--	20,319.4
GBR	3	14	17	18,466.6	--	18,466.6
GER	3	12	15	17,512.5	--	17,512.5
GRE	1	2	3	4,463.2	--	4,463.2
GUA	--	1	1	502.3	--	502.3
HKG	3	8	11	13,352.2	--	13,352.2
HUN	1	3	4	5,241.1	--	5,241.1
IRL	1	2	3	3,595.5	--	3,595.5
ISR	3	8	11	17,444.2	--	17,444.2
ISV	3	7	10	7,519.5	1,597.0	9,116.5
ITA	3	14	17	21,377.7	--	21,377.7
IVB	1	1	2	1,385.1	--	1,385.1
JPN	3	13	16	18,155.3	--	18,155.3
KOR	3	8	11	11,969.6	--	11,969.6

## APPENDIX VI: Travel Emissions

### Competitor Travel Emissions (sailors, team leaders, and coaches) (Cont.)

COUNTRY CODE	COACHES/ TEAM LEADERS	HELM/ CREW	TOTAL TRAVELERS	FLIGHT EMISSIONS (KG CO <sub>2</sub> )	DRIVE EMISSIONS (KG CO <sub>2</sub> )	TOTAL TRAVEL EMISSIONS (KG CO <sub>2</sub> )
LAT	2	4	6	9,312.5	--	9,312.5
LTU	1	3	4	5,493.3	--	5,493.3
MEX	3	10	13	--	1,417.8	1,417.8
MLT	1	2	3	3,351.9	--	3,351.9
NED	3	9	12	17,149.4	--	17,149.4
NOR	2	8	10	10,699.2	106.3	10,805.5
NZL	3	14	17	21,836.1	--	21,836.1
PAR	1	1	2	2,600.0	--	2,600.0
PER*	--	2	2			1,493.4
POL	3	12	15	20,707.2	--	20,707.2
POR	2	7	9	12,732.6	--	12,732.6
ROU	--	1	1	960.8	--	960.8
RSA	1	2	3	7,703.4	122.1	7,825.5
RUS	3	10	13	17,481.7	363.7	17,845.4
SAM	--	1	1	1,317.3	--	1,317.3
SGP	2	5	7	12,220.1	--	12,220.1
SRB	--	1	1	1,492.7	--	1,492.7
SUI	3	7	10	12,618.3	--	12,618.3
SWE	2	6	8	10,574.4	--	10,574.4
TAH	1	3	4	5,477.4	--	5,477.4
TAN	--	1	1	1,933.5	--	1,933.5
TCA	1	1	2	1,579.3	--	1,579.3
THA	--	2	2	3,381.8	--	3,381.8
TPE	2	6	8	11,513.2	--	11,513.2
TUR	2	8	10	14,745.5	--	14,745.5
URU	1	5	6	7,895.9	--	7,895.9
USA	3	14	17	6,802.8	255.8	7,058.6
VEN	--	1	1	862.1	--	862.1
Emerging Nations Coach	1	--	1	541.5	--	541.5



## APPENDIX VI: Travel Emissions

### Travel Emissions from Race Committee, Jury, & Officials

Travel information was gathered only from out-of-town people \*19 were out-of-town race committee volunteers; 70 were local volunteers

TOTAL TRAVELERS	FLIGHT EMISSIONS (KG CO <sub>2</sub> )	DRIVE EMISSIONS (KG CO <sub>2</sub> )	TOTAL TRAVEL EMISSIONS (KG CO <sub>2</sub> )
1	499.2	--	499.2
1	--	122.1	122.1
1	--	122.1	122.1
1	1,294.7	--	1,294.7
1	--	122.1	122.1
1	579.0	--	579.0
1	595.4	135.6	731.0
1	595.4	135.6	731.0
1	--	122.1	122.1
1	--	122.1	122.1
1	1,462.2	--	1,462.2
1	--	122.1	122.1
1	593.9	--	593.9
1	--	122.1	122.1
1	1,139.6	--	1,139.6
1	--	122.1	122.1
1	493.5	--	493.5
1	593.9	--	593.9
1	--	122.1	122.1
1	--	122.1	122.1
1	--	122.1	122.1
1	--	122.1	122.1
1	423.4	--	423.4
1	789.3	--	789.3
1	488.4	--	488.4
1	374.2	135.6	509.8
1	666.3	--	666.3
1	577.0	122.1	699.1
1	515.8	--	515.8
1	434.0	--	434.0
1	659.3	--	659.3
1	160.5	--	160.5
1	460.3	--	460.3
1	--	122.1	122.1

## APPENDIX VI: Travel Emissions

### Travel Emissions from Race Committee, Jury, & Officials (Cont.)

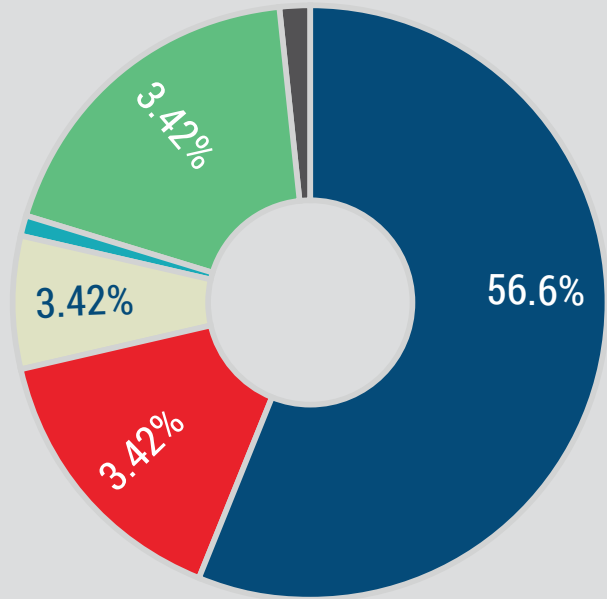
TOTAL TRAVELERS	FLIGHT EMISSIONS (KG CO <sub>2</sub> )	DRIVE EMISSIONS (KG CO <sub>2</sub> )	TOTAL TRAVEL EMISSIONS (KG CO <sub>2</sub> )
1	4496.1	--	496.1
1	--	122.1	122.1
1	504.5	--	504.5
1	1,468.2	--	1,468.2
1	--	241.3	241.3
1	--	122.1	122.1
1	497.6	--	497.6
1	--	238.4	238.4
1	--	238.4	238.4
1	--	122.1	122.1
1	675.6	--	675.6
1	1,745.8	--	1,745.8
1	--	122.1	122.1
1	--	122.1	122.1
1	--	122.1	122.1

### World Sailing and Media Team Travel Emissions

TEAM	TOTAL TRAVELERS	FLIGHT EMISSIONS (KG CO <sub>2</sub> )	DRIVE EMISSIONS (KG CO <sub>2</sub> )	TOTAL TRAVEL EMISSIONS (KG CO <sub>2</sub> )
World Sailing	6	6,497.6	--	6,497.6
Media	6	4,023.0	--	4,023.0

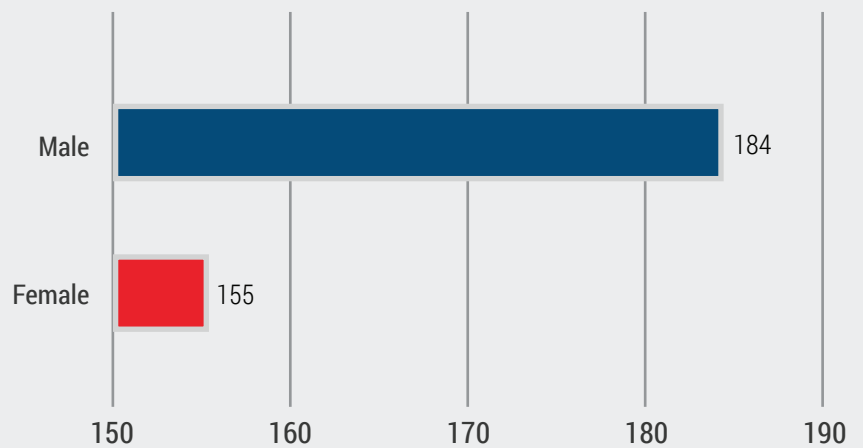
1. Are you a...

- a) Competitor
- b) Coach/Team Leader
- c) Race Committee Member/Judge
- d) Media/Regatta Officer
- e) Volunteer
- f) Parent

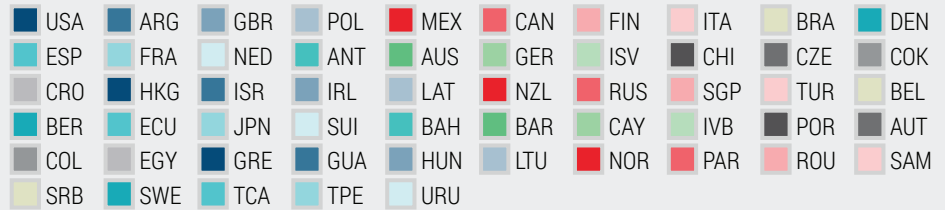
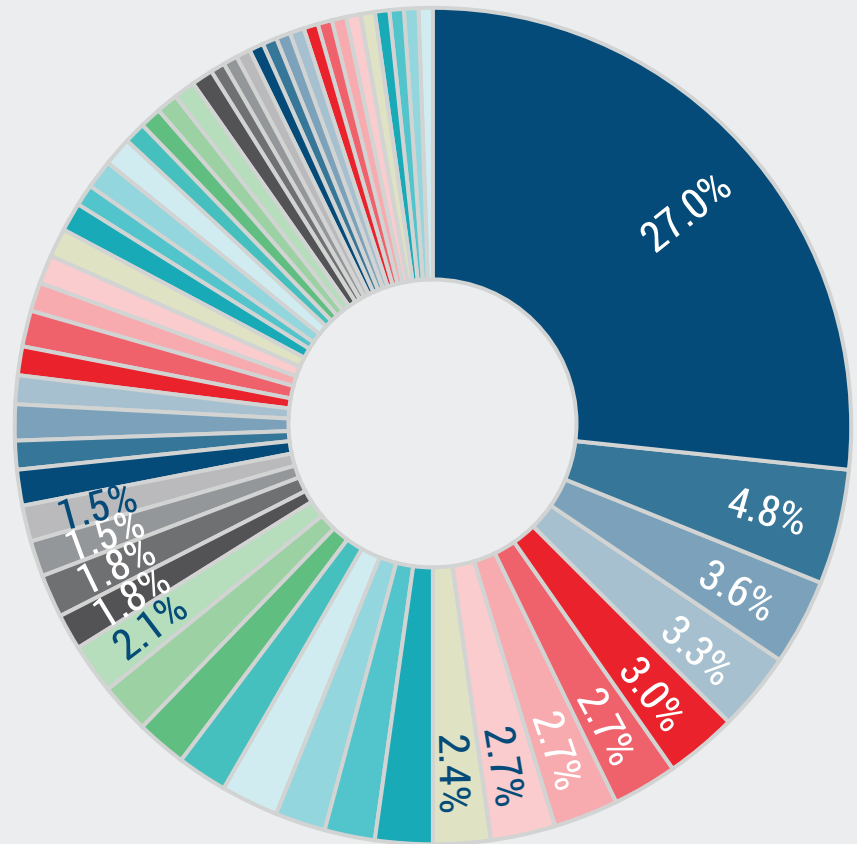


2. Gender

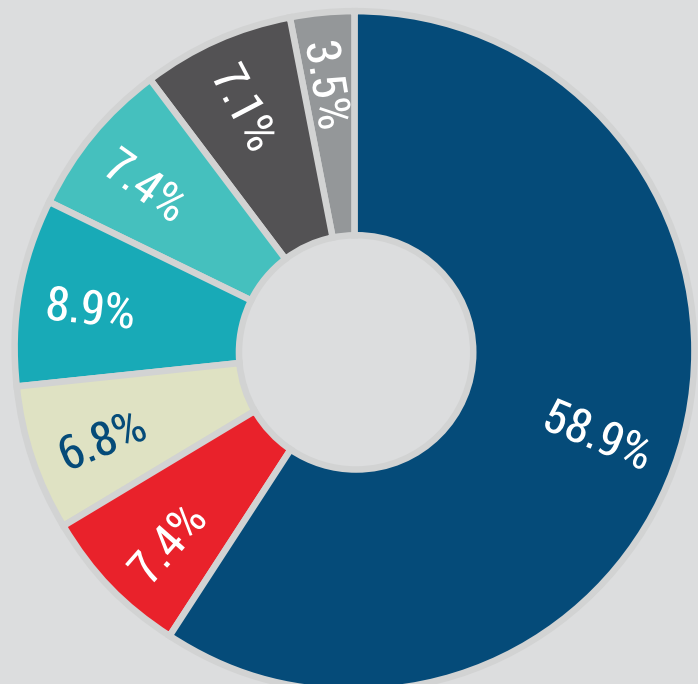
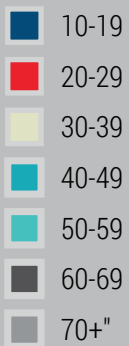
- a) Female
- b) Male
- c) Prefer not to say
- d) Other



3. Nationality

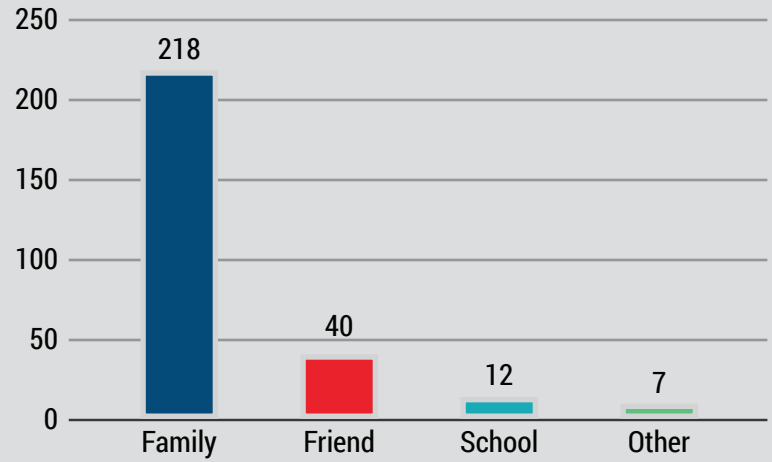


4. Age



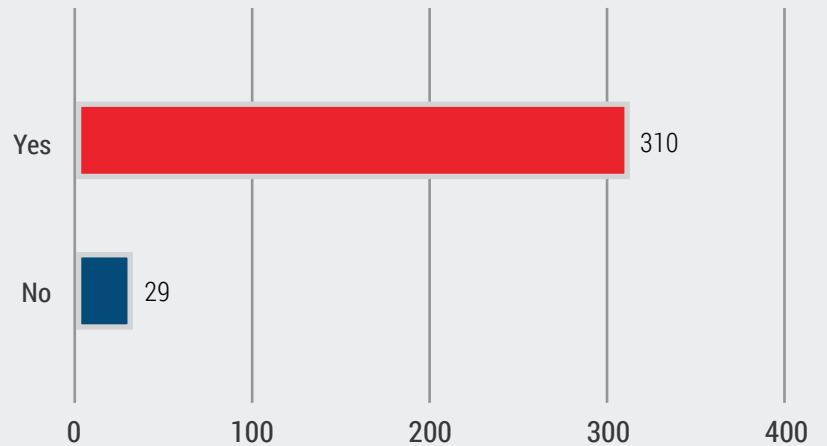
5. If you are a sailor, who first introduced you to the sport of sailing?

- a) Family
- b) Friend
- c) School
- d) Other



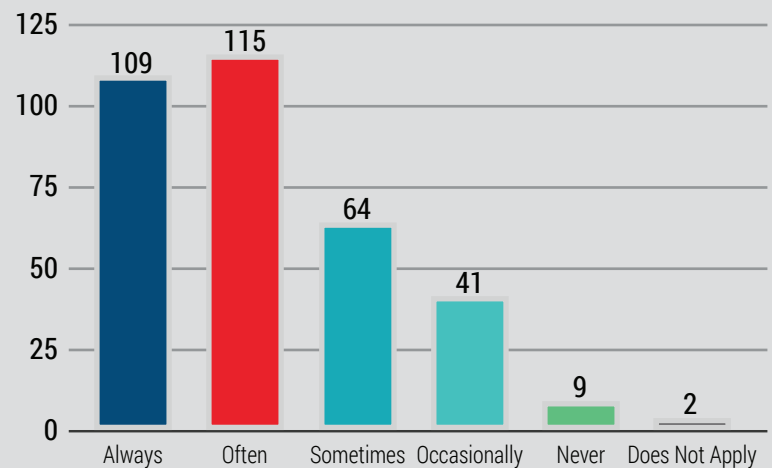
6. Do you own a reusable water bottle?

- a) Yes
- b) No



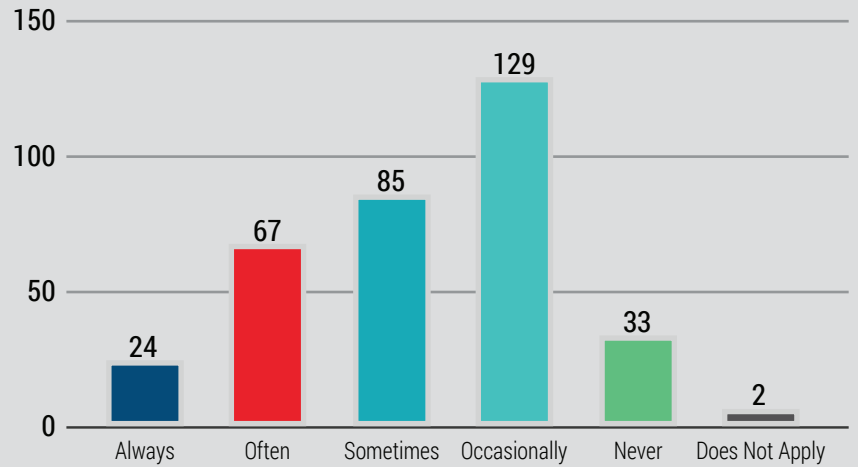
7. How often do you use a reusable water bottle?

- a) Never
- b) Occasionally
- c) Sometimes
- d) Often
- e) Always
- f) Does not apply



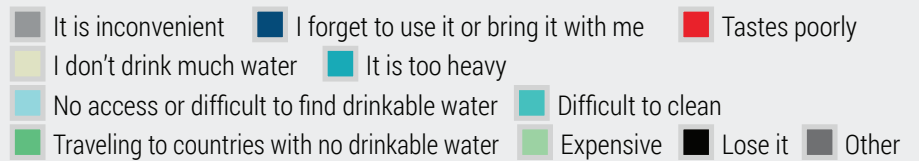
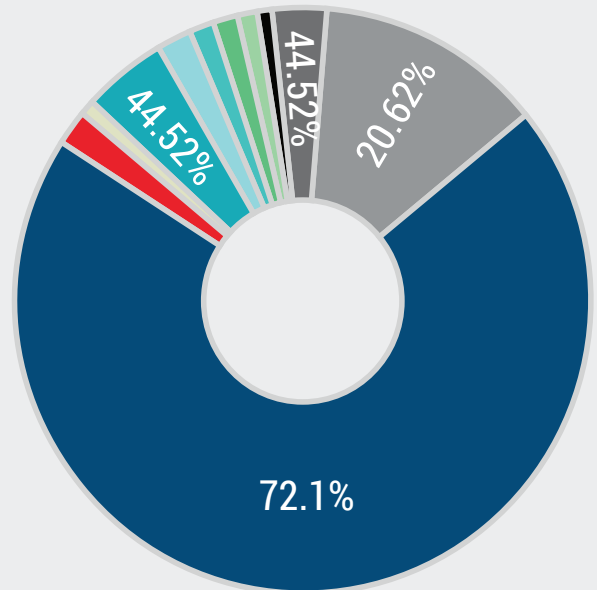
8. How often do you purchase single-use water bottles?

- a) Never
- b) Occasionally
- c) Sometimes
- d) Often
- e) Always
- f) Does not apply



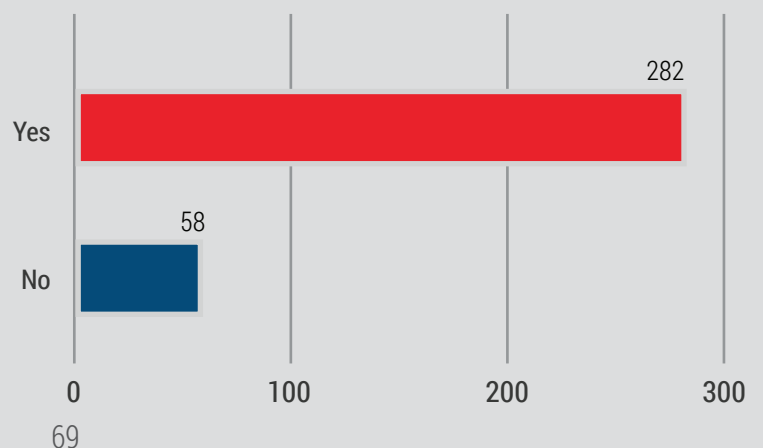
9. What are some reasons you might not use a reusable water bottle?  
(Check all that apply)

- a) I forget to use it or bring it with me
- b) It is inconvenient
- c) It is too heavy
- d) Other



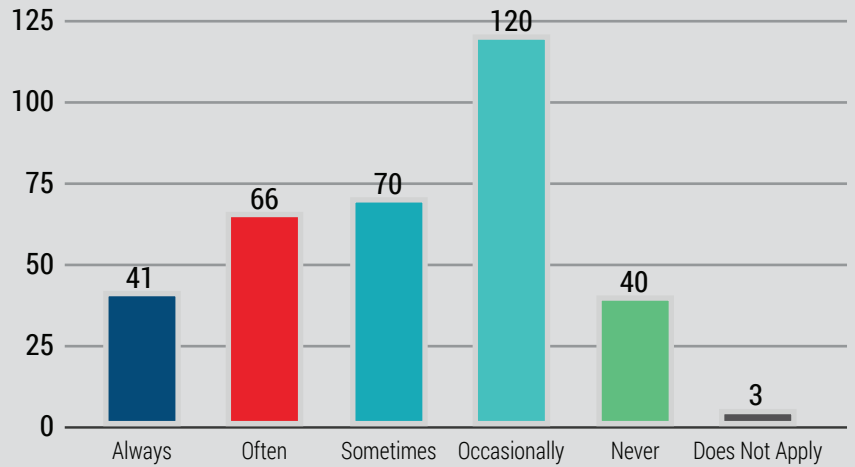
10. Do you own a reusable shopping bag?

- Yes
- No



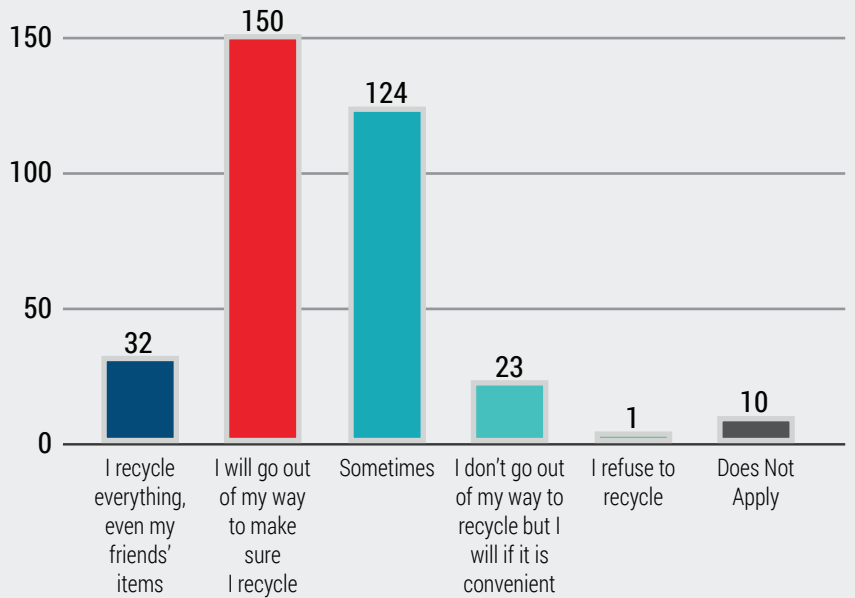
11. How often do you use a single-use plastic bag?

- a) Never
- b) Occasionally
- c) Sometimes
- d) Often
- e) Always
- f) Does not apply



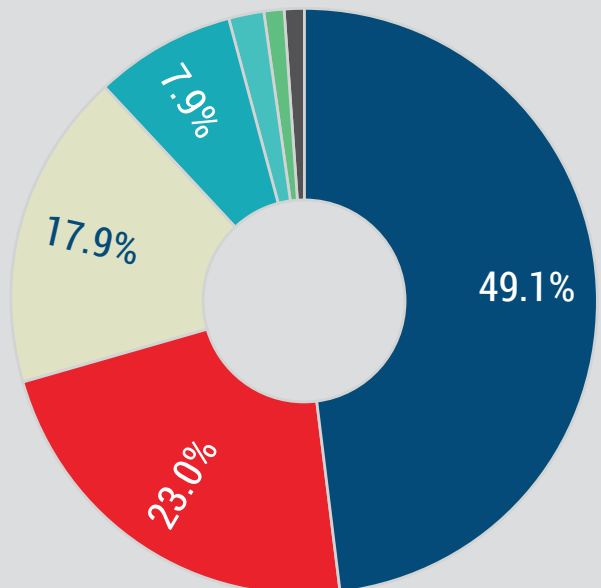
12. How often do you recycle?

- a) I refuse to recycle
- b) I don't go out of my way to recycle but I will if it is convenient
- c) Sometimes
- d) I will go out of my way to make sure I recycle
- e) I recycle everything, even my friends' items
- f) Does not apply



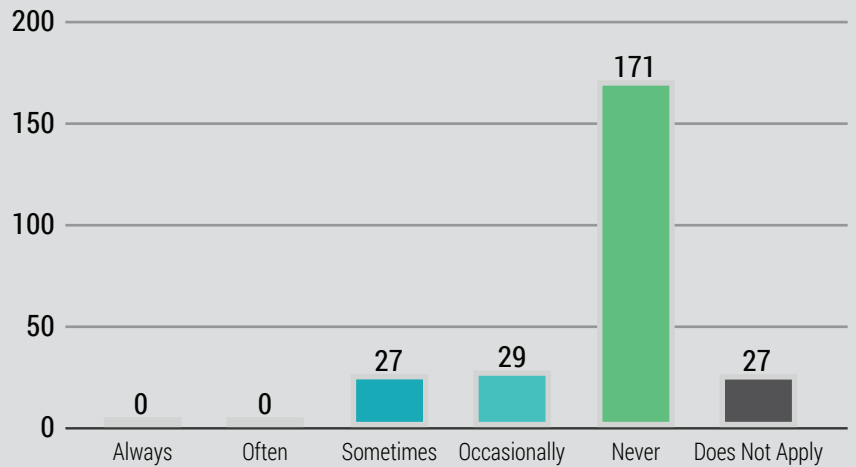
13. What would help you to recycle more? (Check all that apply)

- a) More recycling bins
- b) More education on what to recycle and what to avoid
- c) More visual reminders, such as posters
- d) Fewer trash bins
- e) City doesn't have recycling
- f) Nothing
- g) Other

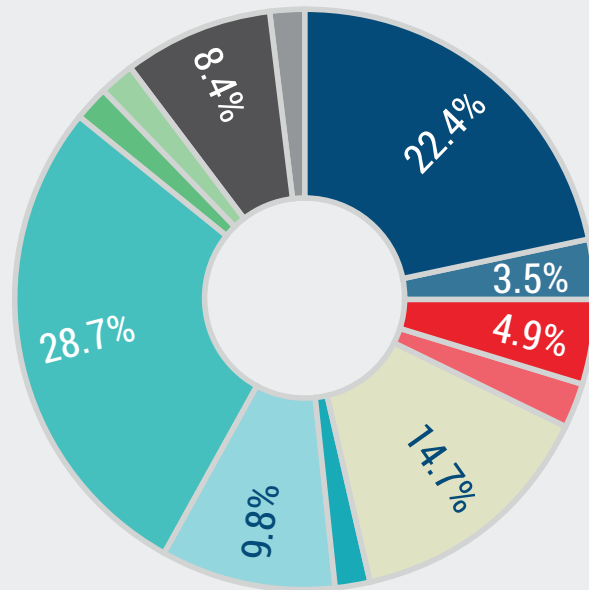


14. Do you compost at home?

- a) Never
- b) Occasionally
- c) Sometimes
- d) Almost Always
- e) Does not apply



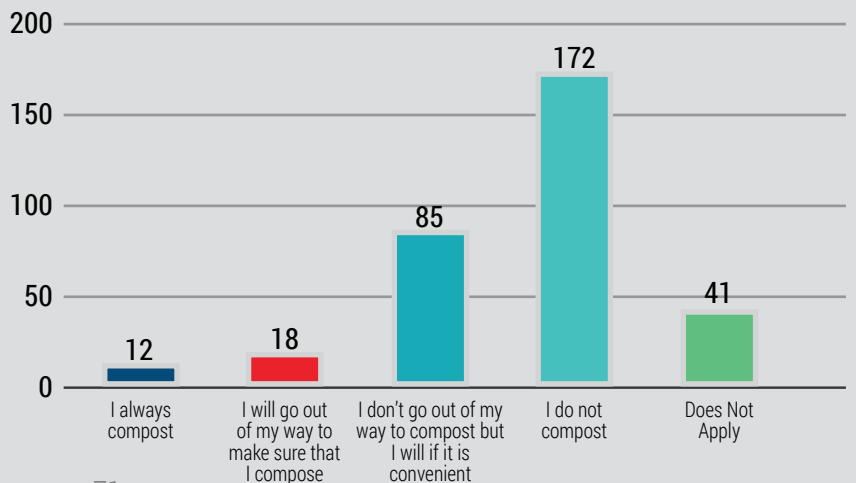
15. If you compost at home, what do you include in your compost?



- All compostables
- All food
- Coffee grounds
- Egg shells
- Tea bags
- Yard waste
- Animal waste
- All organics
- Fruit and vegetables
- Organic food waste
- Paper
- Not applicable

16. How often do you compost when you are NOT at home?

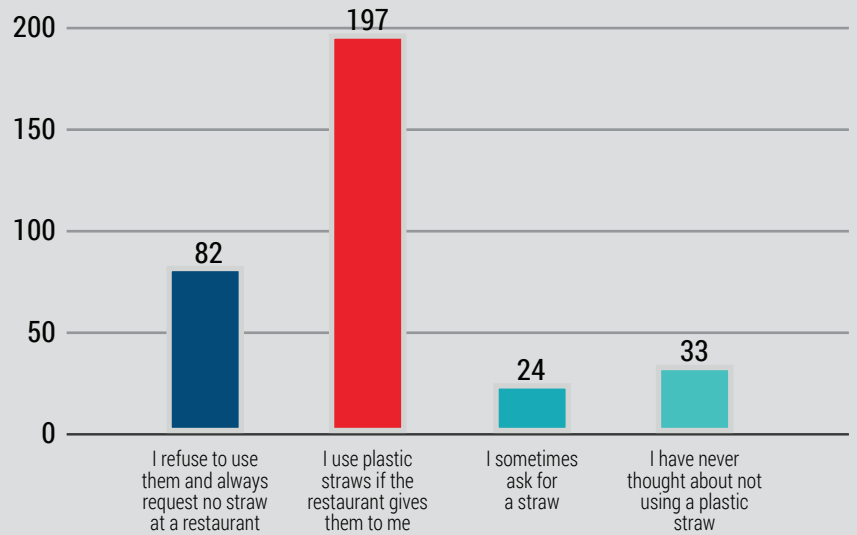
- a) I do not compost
- b) I don't go out of my way to compost but I will if it is convenient
- c) I will go out of my way to make sure that I compose
- d) I always compost
- e) Does not apply





17. How often do you use plastic straws at restaurants?

- a) I refuse to use them and always request no straw at a restaurant
- b) I use plastic straws if the restaurant gives them to me
- c) I sometimes ask for a straw
- d) I have never thought about not using a plastic straw



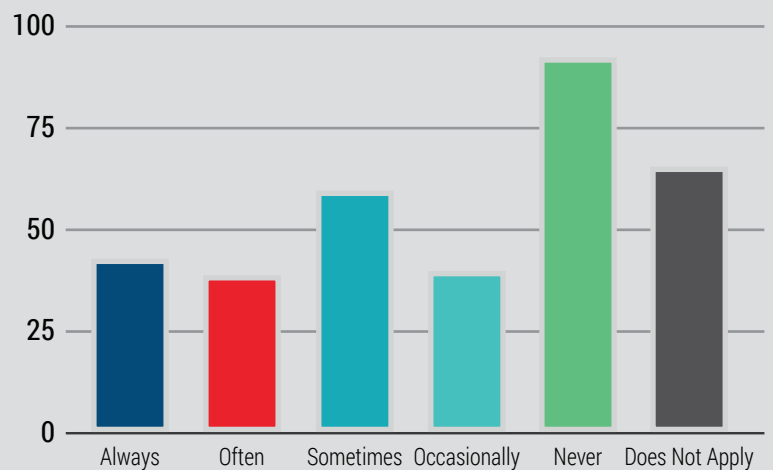
18. Do you know that some sunscreens can cause damage to reefs and sea life?

- a) Yes
- b) No



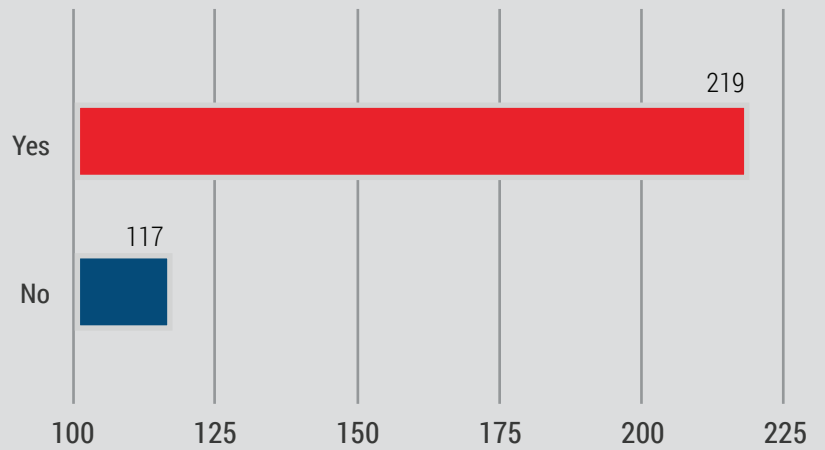
19. How often do you use reef-safe sunscreen?

- a) Never
- b) Occasionally
- c) Sometimes
- d) Often
- e) Always
- f) Does not apply



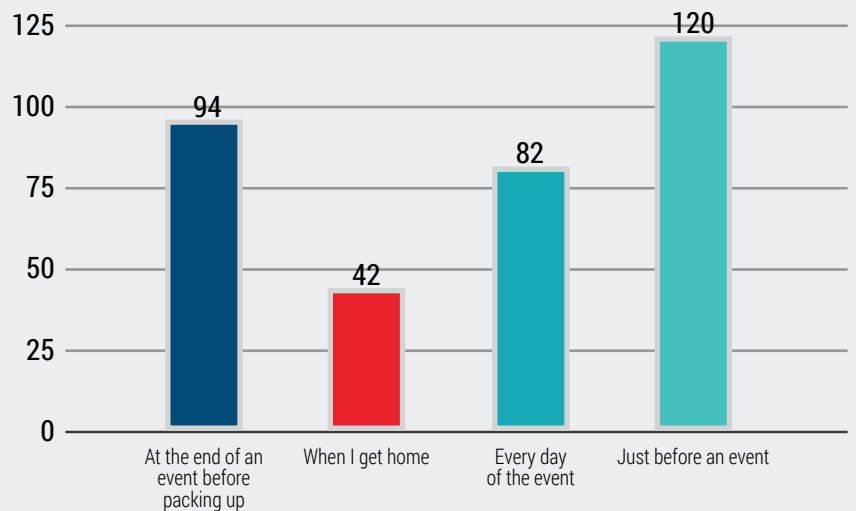
20. Do you know what an invasive species is?

- a) Yes
- b) No



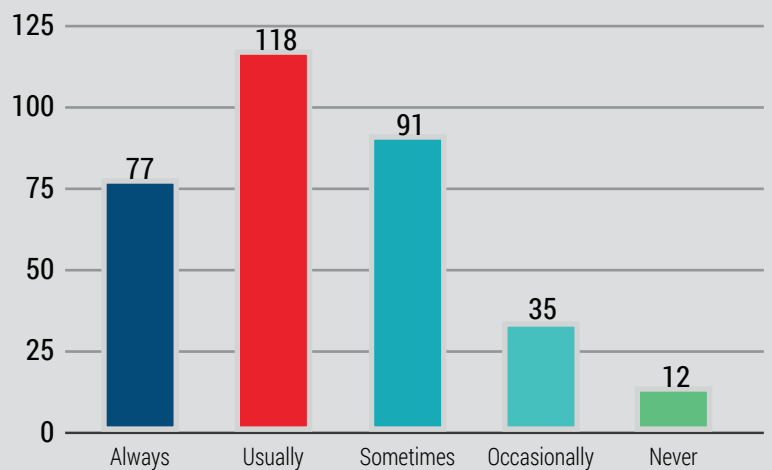
21. When do you thoroughly wash down your boat?  
(Check all that apply)

- a) Just before an event
- b) At the end of an event before packing up
- c) When I get home
- d) Every day of the event
- e) Does not apply to me



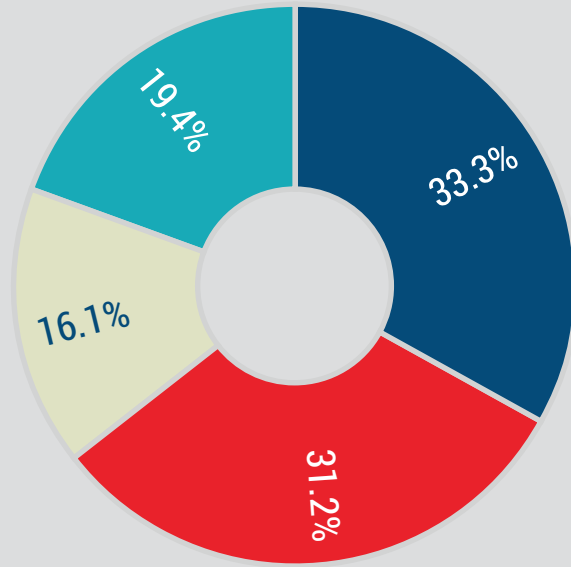
22. I would spend slightly more money to buy items that have a lower negative impact on the environment.

- a) Never
- b) Occasionally
- c) Sometimes
- d) Usually
- e) Always
- f) Other



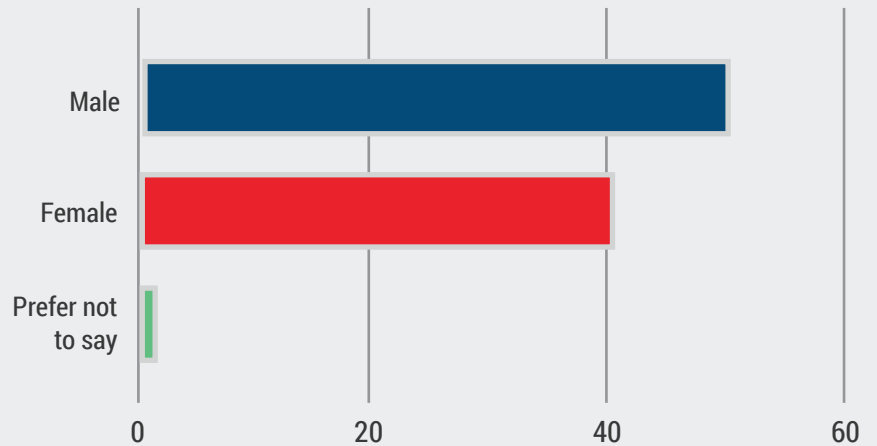
1. Are you a...

- a) Competitor
- b) Coach/Team Leader
- c) Race Committee Member/Judge
- d) Media/Regatta Officer
- e) Volunteer
- f) Other



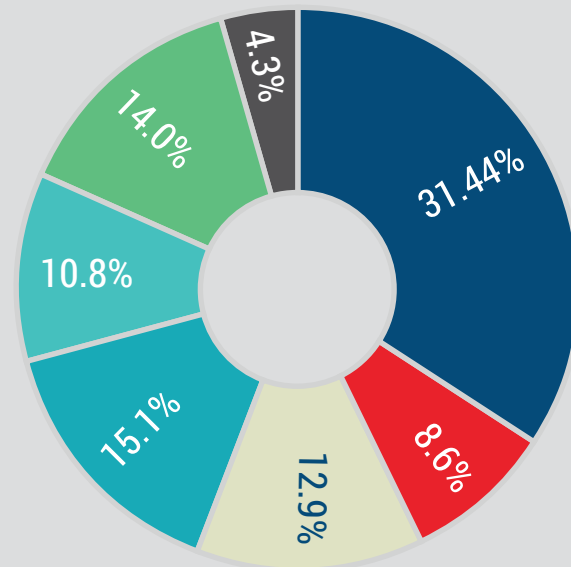
2. Gender

- a) Female
- b) Male
- c) Prefer not to say
- d) Other



4. Age

- 10-19
- 20-29
- 30-39
- 40-49
- 50-59
- 60-69
- 70+''



5. What did you learn about sustainability from this event?

Some answers included:

- Sustainability practices are different in other countries.
- It is easy to change habits to be more sustainable.
- How many non-reusable items I normally use, but don't need. Alternative products exist.

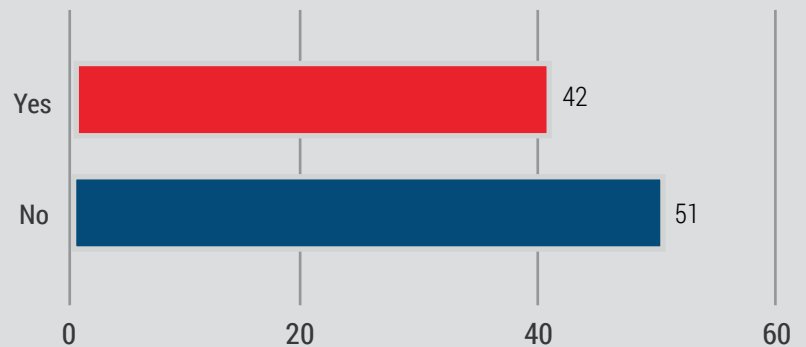
6. What did you learn from the opening ceremony guest speaker, Dr. Sylvia Earle?

Some answers included:

- We all need to participate in helping to keep earth an inhabitable place.
- The sea is just as important as the air around us.
- That each of us plays a role in sustainability.
- There is much more pollution then people think.

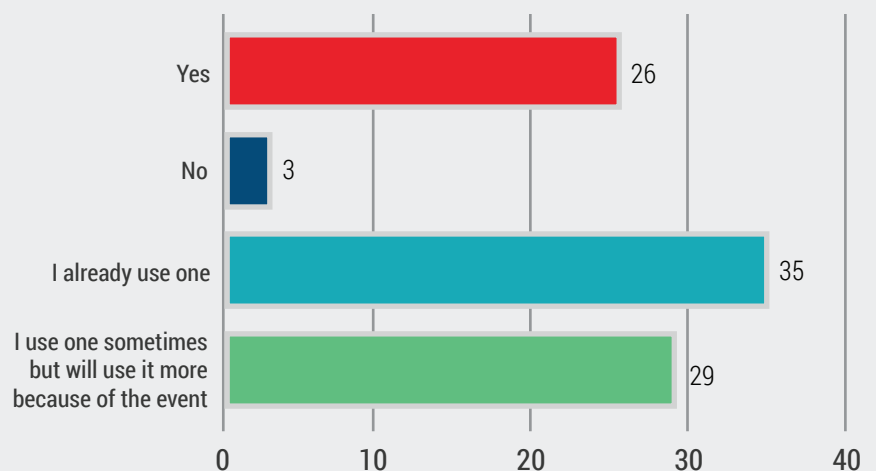
7. Did you take the UN pledge to fight for #CleanSeas?

- a) Yes
- b) No



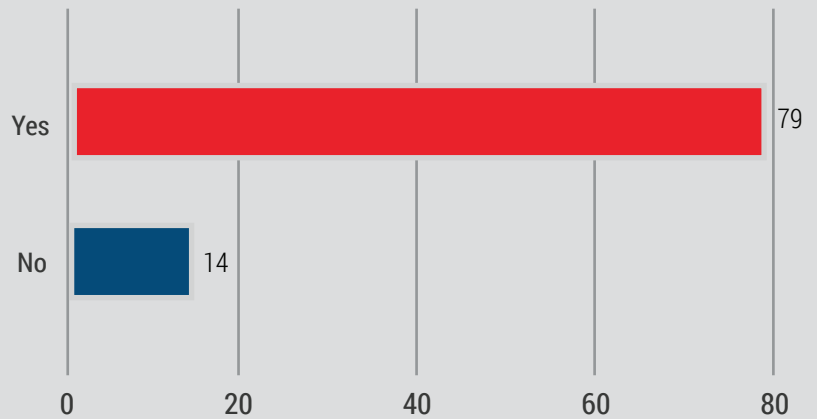
8. Will this event encourage you to use a reusable water bottle at home?

- a) Yes
- b) No
- c) I already use one
- b) I use one sometimes but will use it more because of the event



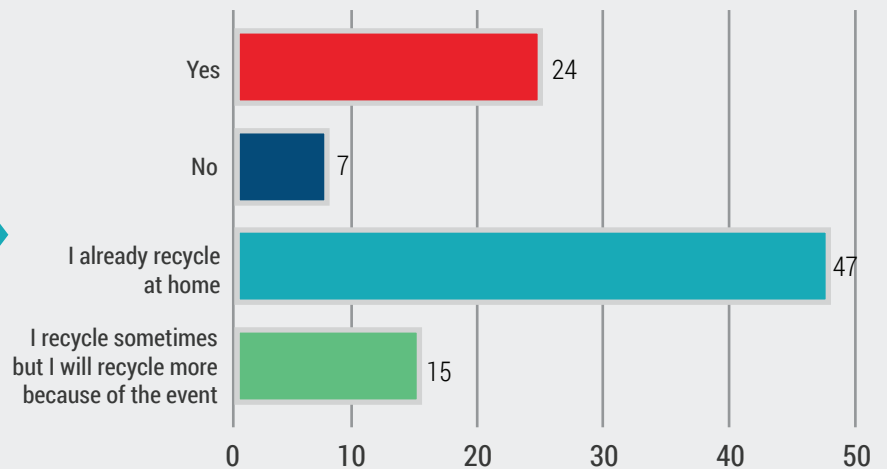
9. Will this event encourage you to stop buying single-use plastic?

- a) Yes
- b) No



10. Will this event encourage you to recycle at home?

- a) Yes
- b) No
- c) I already recycle at home
- d) I recycle sometimes but I will recycle more because of the event

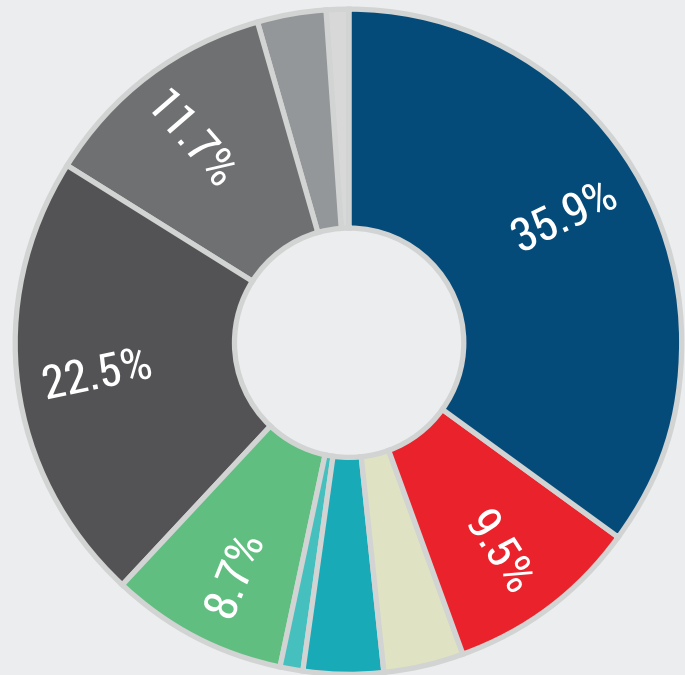


11. What, if anything, did you learn about composting at this event?

Some answers included:

- The end product is used as fertilizer.
- We need a commercial composting facility in Corpus Christi.
- You can't compost cups with wax on them, gum is made of plastic.
- I had a chance to see solar compost and learn how it works.
- How much can be composted as well as some of the different processes and programs.

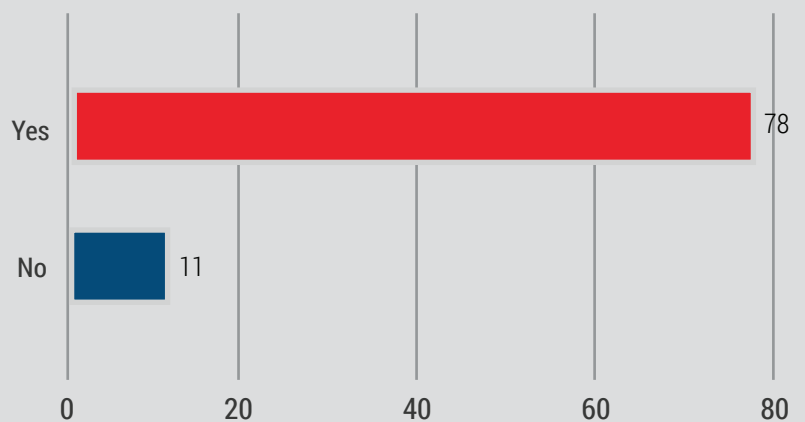
12. What sustainability actions /activities did you participate in during the event.  
(Check all that apply)



- a) Brought own water bottle
- b) Interacted with conservation groups at dinner in the hallway
- c) Watched *Smog of the Sea* on movie night
- d) Went to the Art Center for Sheila Rogers' "Oceans of Plastic" exhibit
- e) Helped create art mural on the wall, entitled *The Bottom Line*
- f) Noticed chandelier made of plastic bottles located in Corpus Christi Airport
- g) Noticed solar compost machine in the boat park
- h) Used only reef safe sunscreen
- i) Other
- j) Did not participate

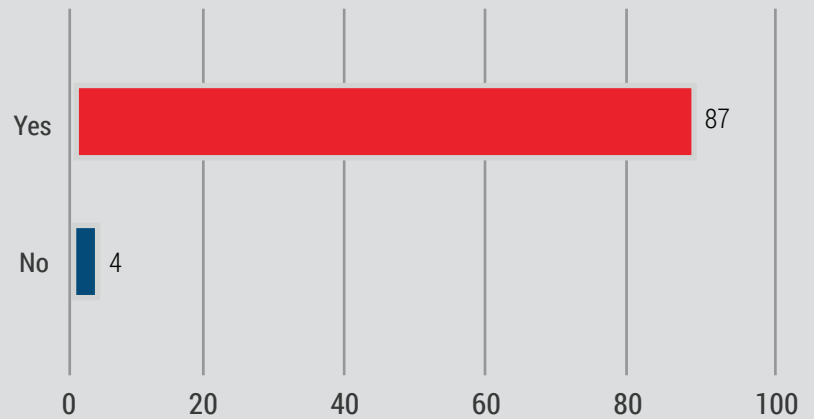
13. Did the focus on sustainability enhance the event?

- a) Yes
- b) No



14. Would you like to see a sustainability and ocean conservation focus included in all sailing regattas?

- a) Yes
- b) No



15. Other Comments?

Some answers included:

Absolutely impressive. Coming from an island where we regularly see trash coming ashore this was an inspiration. Will be talking with groups at home about this (have taken loads of photos to show!)

I am delighted with the sustainability initiative that occurred here. On our coach boat, we had 18 coaches and 5 crew and only a 1/4 bag of trash at the end! That's remarkable! I am the recycle queen, but others are not aware, so this was a wonderful way to introduce recycling.

USA is far behind Sweden when it comes to sustainability and composting. Maybe too much focus on the plastic bottle and composting instead of not using "single-use plates", new towels every day, turn off AC at you room during sailing, not use powerboats with massive engines as "media-boat" .... But this regatta is a good start. Sustainability is the future. Thanks a lot!

## APPENDIX VIII: Art Initiatives

### Bottom Line Mural

*The Bottom Line* is a temporary chalk mural designed by Meg Aubrey, Assistant Professor of Art at Texas A&M University-Corpus Christi. The sailors, volunteers, and community participated in the creation of the mural, guided by local artists Lars Roeder and Payton Koranek. The creation of the mural began the week of July 10th and continued throughout the YSWC until completed. The finished mural measured approximately 80' x 10'. The mural was located near the launch site for the YSWC, on the beachfront retaining wall of the Emerald Beach Hotel.

*The Bottom Line* title is pulled from a book by world-renowned marine biologist, Sylvia Earle. Dr. Earle was the keynote speaker at the opening ceremony for the YSWCs. The abstract is composed of triangles, a reference to sails and it plays the cool colors of water against the warm colors of sunshine. The design also evokes the rich history of American quilts; a nod to our nation's heritage that our international guests will surely enjoy.



### Chandelier in Corpus Christi International Airport

by Shelia Rogers

International participants and out of town visitors experienced the 2018 YSWC "Sustainability and Ocean Conservation" theme the moment they stepped off their plane at Corpus Christi International Airport. Upon exiting the gate area, they saw a large (10' x 22') chandelier. The site-specific sculpture by Corpus Christi artist and environmentalist, Shelia Rogers mimics a crystal chandelier but was created from 5,000 plastic water bottles. Signage encourages people to make small changes in their daily habits by stopping the use of single-use plastic. Plastic straws and water bottles are typically used only 20 minutes, yet the plastic takes over 1,000 years to decompose. Water bottles and plastic straws appear globally on top 10 lists of plastic marine debris.



### "Oceans of Plastic" Art Exhibition

by Sheila Rogers.

In conjunction with the YSWC, the Art Center of Corpus Christi held an exhibition of Sheila Rogers' artwork, entitled "Oceans of Plastic". The intent of Sheila Rogers' captivating and colorful artwork is to raise awareness of one of the most pressing consumer and environmental issues that we face today - plastic pollution, particularly in our oceans. The 3-D pieces are made from debris she has collected along our area waterfronts. Motivated by her desire to educate and motivate the public, Sheila advocates for a reduction of single-use plastics by encouraging small lifestyle changes that will lessen the amount of waste we are putting into our environment. All YSWC participants, volunteers, and the community were encouraged to see the exhibit which was located across the street from the regatta venue.





## APPENDIX IX: List of Figures

- Figure 1.1 Stakeholder Structure (Page 12)
- Figure 1.2 Organizational Chart (Page 14)
- Figure 1.3 Social Media Impressions from World Sailing postings (page 15)
- Figure 2.1 Drinking Water Usage on Land and on Boats (page 19)
- Figure 2.2 Waste Generated During Event measured in Tonnes (page 26)
- Figure 2.3 Types of Boats Used for Race Committee, Coach, and Support Boats (page 29)
- Figure 2.4 Fuel Usage – Actual v Estimated (page 30)
- Figure 2.5 Shipping Emissions (page 32)
- Figure 2.6 CO<sub>2</sub>e Emissions in tonnes (page 33)
- Figure 3.1 Survey Responses – Success of Sustainability Theme at Regatta (Page 38)
- Figure 3.2 Responses to #CleanSeas program (page 40)
- Figure 4.1: Post-Race Survey Participation in Sustainability Activities (page 50)
- Figure 5.1 Gender Representation (page 53)
- Figure 5.2 Emerging Nations Program (page 54)

## APPENDIX X: GRI Index

The 2018 Youth Sailing World Championships report was written using the newest version of the Global Reporting Initiative, or GRI Standards, as these standards are the first global standards for sustainability reporting.

This material references:

- Disclosures 102-1, 102-3, 102-14, 102-18, 102-32, 102-40, 102-42, 102-43, 102-50, 102-53, and 102-55 from GRI 102: General Disclosures 2016
- Disclosures 302-1, 302-2, and 302-05 from GRI 302: Energy 2016
- Disclosures 303-5 from GRI 305:Water and Effluents 2018
- Disclosure 305-1 from GRI 305: Emissions 2016
- Disclosures 306-2 and 306-3 from GRI 306: Effluents and Waste 2016
- Disclosure 405-1 from GRI 405: Diversity and Equal Opportunity 2016
- Disclosure 413-1 from GRI 413: Local Communities 2016.

GRI STANDARD	DISCLOSURE	PAGE NUMBER(S)	DISCLOSURE
GRI 102: General Disclosures 2016	Organizational Profile		
	102-1 Name of the organization.	The 2018 youth World Sailing Championship was organized by the Corpus Christi Yacht Club.	Fully
	102-3 Location of headquarters.	Corpus Christi Yacht Club, 98 Coopers Alley, Corpus Christi, TX 78401	Fully
	Strategy		
	102-14 Statement from senior decision-makers.	Pages 3 - 5	Fully
	Governance		
	102-18 Governance structure.	Page 14	Partially
	102-32 Highest governance body's role in sustainability reporting.	Green Team, 2018 Youth Sailing World Championship	Fully
	Stakeholder Engagement		
	102-40 List of stakeholder groups.	Pages 12 and 13	Fully
	102-42 Identifying and selecting stakeholders.	Pages 12 and 13	Fully
	102-43 Approach to stakeholder engagement.	Pages 12 and 13	Partially
	Reporting Practice		
	102-50 Reporting period.	Pages 7 and 8	Fully
	102-53 Contact point for questions regarding the report.	Elizabeth Kratzig, Ekratzig@aol.com. Katherine Martin, kmartin16@islander.tamucc.edu	Fully
102-55 GRI content index.	Page 81	Fully	

## APPENDIX X: GRI Index (Cont.)

GRI STANDARD	DISCLOSURE	PAGE NUMBER(S)	DISCLOSURE
GRI 300: Environmental 2016-2018	Energy 2016		
	302-1 Energy consumption within the organization.	Pages 30 and 31	Partially
	302-2 Energy consumption outside the organization.	Pages 30 and 31	Partially
	Water and Effluents 2018		
	303-5 Water consumption.	Pages 17 - 19 and 35	Partially
	Emissions 2016		
	305-1 Direct (Scope 1) GHG emissions.	Pages 32 and 33	Partially
	Effluents and Waste 2016		
	306-2 Waste by type and disposal method.	Pages 24 - 26	Fully
	306-3 Significant spills.	Page 31	Fully
	GRI 400: Social 2016-2018	Diversity and Equal Opportunity 2016	
405-1 Diversity of governance bodies and employees.		Page 53 and 54	Partially
Local Communities 2016			
413-1 Operations with local community engagement, impact assessments, and development programs.		Pages 43 – 51 and 56	Partially

## A SPECIAL THANKS

to the all of the partners and sponsors who supported the Youth Sailing World Championships and made it a success. Thank you to the following organizations and individuals who specifically contributed to the sustainability initiatives of the regatta.

11th Hour Racing  
American Bank  
Art Center of Corpus Christi  
Brian P. McCullough  
City of Corpus Christi Marina  
Corpus Christi Department of Solid Waste Management  
Corpus Christi International Airport  
Coastal Bend Bays & Estuaries Program  
Coastal Bend Bays Foundation  
Dale Tremain  
Ed Rachal Foundation  
Harte Research Institute of Gulf of Mexico Studies at TAMUCC  
Harken Derm  
HEB  
Islander Green Team of Texas A&M Corpus Christi  
Jan Glinski Design  
Jill Savery  
Mission-Aransas National Estuarine Research Reserve  
New Earth Compost  
Past Commodores of Corpus Christi Yacht Club  
Pettus Advertising  
Richline Technical  
Sailors for the Sea  
Sheila Rogers Fine Art  
Staff of Corpus Christi Yacht Club  
Texas Coastal Bend Chapter, Surfrider Foundation  
Texas Parks & Wildlife  
Texas Sailing Association  
Texas State Aquarium  
University of Texas Marine Science Center – Port Aransas  
US Sailing  
World Sailing  
Yeti

### Sustainability Report of the 2018 Youth Sailing World Championships Corpus Christi, Texas

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Overall guidance provided by Jill Savery.

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