

CLEAN4SHORE PROGRAM REPORT 2018

HAWKESBURY RIVER AND BRISBANE WATERS



REPORT BY GRAHAM JOHNSTON

National Landcare People's Choice Award Winner



Local Land Services
Greater Sydney



This Project received Grant funding from the Australian Government through the Improving Your Local Parks and Environment program.



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COVER PHOTO: Floating Landcare, BWSC Work Experience

ACKNOWLEDGEMENTS

The Federal Governments Improving Your Local Parks and Environment Grant (IYLP&E) secured by local Robertson Member “Lucy Wicks” during 2017 enabled an immediate start to 2018, with surveys and planning for the schools and organisations eager to participate during the year. This IYLP&E grant provided three years of secured funding, and is managed by Central Coast Council, with the simple aim of improving the waterways, parks and reserves within the Robertson Federal Electorate. The grant also provides more “flexibility”, enabling Clean4shore to tackle larger tasks, maintain our level of protective equipment and complete additional school forums, repair and maintenance of gear, together with monitoring the coastal foreshores within the Robertson Electorate.

Central Coast Council provided the management, guidance and compliance for this grant, with Clean4shore providing field trip coordination, report and financial planning. Regular consultation and field trip attendance from Council’s Estuary Officer Warren Brown, stakeholder Greater Sydney Local Land Services (GSLLS), Maritime, Fisheries and National Parks resulted in a much more successful transition and coordination of each planned field trip associated with this grant.

The Tuggerah Lakes program, successfully funded and completed in 2016, was re-commenced through a grant from Central Coast Council targeting “high traffic” areas within the Tuggerah Lakes and Southern Lake Macquarie foreshores.

Greater Sydney Local Land Services and Hornsby Shire Council combined for a grant to enable high schools from the local Hornsby Shire to attend Clean4shore field trips within their boundaries. Stakeholders from GSLLS and Council, attend each field trip, providing valuable education outcomes on marine litter issues. Many thanks to Ana Rubio, David Bolton and Rebecca Mooy, for their proactive engagement with the students on field trips. Hornsby Shire Council strongly promoted the program through their social media outlets.

The Environment Protection Authority continues to support Clean4shore’s application for “Charity Status” at Woy Woy Landfill. Central Coast Council also supports this application which greatly reduces our disposal fees to \$36 per tonne and \$16 minimum fee. This disposal discount saves thousands of dollars of Clean4shore’s grant funding. Council Landfill staff also supply Clean4shore with courteous and professional direction though the disposal process.

Clean4shore recognizes the role of our subcontracted barge operators. Simon Funnel (Brisbane Waters) and Rob Moxham’s Hawkesbury River team (Mitchell, Lee and Brett) provide valuable mentoring, local and maritime education, coupled with the important role of removal, storage and unloading of the 66 tonnes of rubbish collected during 2018. Their guidance and recognition of risk management procedures is vital to Clean4shore’s operations as is their positive interaction with the all the attending groups.

Clean4shore acknowledges the Department of Education, for providing the vision and approvals to allow student participation during 2018. Brisbane Water Secondary College, utilise the “Floating Landcare” program as a “work experience” option for students. Interaction between the young students and their more senior “Bushcare” volunteers was indeed positive for all. Much needed “In Kind” support was received, often at very short notice, from Seacoast Seafood, JD’s Family Auto, both barge operators, “Bill”, and the dedicated team of volunteers from MacMasters Beach Surf Club when larger items require collection or “breakdowns” occur.

Thanks to The Glen, Green Army, Department of Juvenile Justice, Telstra and Baltimore Aircoil for providing adult volunteers, tackling the “tough” tasks that often occurred during field trips.

Field trip reports, including litter statistics, are distributed to all stakeholders and interested parties following each field trip. Tangaroa Blue compiles our statistics for the Australian Marine Debris Initiative Database, together with valuable mentoring and support whilst providing data analysis for the annual report.

Social media communication of field trips via Facebook and Instagram attracts a huge following, with valuable feedback received through this medium. Media promotion is well received from Clean4shore, including television and regular ABC and local radio interviews with Scott Levi and Malcom Poole.

Finally, acknowledgement must be provided to the army of volunteers and supporters of the program, who voted through the National Landcare Awards, enabling Clean4shore to win the “People’s Choice Award” as Australia’s most popular Landcare program.

Financial Support

Australian Federal Government
 Central Coast Council
 Greater Sydney Local Land Services
 Hornsby Shire Council
 Corporate Landcare
 Landcare Australia

Volunteer Contribution

Brisbane Waters Secondary College Support Unit
 Brisbane Waters Secondary College Bushcraft
 Brisbane Waters Secondary College Marine Study
 Brisbane Waters Secondary College The Croft
 Brisbane Waters Secondary College Work Experience

LOGISTICAL & IN KIND SUPPORT

Simon Funnell (barge operator)
 Rob Moxham (barge operations)
 Tangaroa Blue (statistics/data)
 Brisbane Waters National Park
 Seacoast Seafoods (barge support)
 Clean4shores: Sallie-Ann Macklin, Wendy Graham, Jan Sillato

Terrigal High School
 The Glen Aboriginal Men’s Health Clinic
 Kincumber High School Peer Support Group
 ET Australia’s Green Army Gosford
 Erina High School
 Narara Valley High School
 MacMasters Beach Surf Life Saving Club
 GSLLS Floating Landcare
 Cherrybrook Technology High School

Local & ABC Radio
 NSW Maritime
 NSW Fisheries
 Central Coast Parks & Wildlife
 Central Coast Express

Rolland Hassall High School
 Asquith Girls High School
 Baltimore Aercoil
 Telstra Corporation
 St Edwards College East Gosford
 Pretty Beach Primary School
 Rouse Hill Anglican College
 Kincumber & Empire Bay Residents

EXECUTIVE SUMMARY

Background: Clean4shore is a small not for profit, community based organisation, based at MacMasters Beach on the Central Coast. The program utilises schools, youth, disability and community groups to clean litter and general rubbish along the foreshores of the Hawkesbury River estuary, Brisbane Waters estuary and the coastal lagoons of Tuggerah.

The clean-ups commenced during a MacMasters Beach Surf Club, Duke of Edinburgh's Award kayaking expedition of the Hawkesbury River in 2010 and quickly expanded annually into Brisbane Waters and Tuggerah Lakes, generating school and community interest within these regions.

Coordinating the program required the engagement of two highly competent subcontractors, Simon Funnell and Rob Moxham, both oyster barge operators, responsible for the marine transportation of volunteers and litter collected from the foreshores. The program must comply with stakeholder approvals, and a comprehensive risk assessment, in order to meet NSW Department of Education and our funding partners WHS requirements.

The engagement of schools and community groups is dependent on grant funding. The Federal Government joined major stakeholders Greater Sydney Local Land Services, Hornsby Shire and Central Coast Councils to provide and secure these grants, keeping the volunteers and subcontractors on the water.

The removal of litter, particularly plastics and polystyrene from waterways, improves the visual appearance of the estuaries, but more importantly greatly improves estuarine and marine environment, whilst providing an educational adventure for the volunteers. Marine debris is a global issue which is best addressed through local initiatives such as Clean4shore.

Clean4shore's 2018 program began with further removal of the discarded pontoons, sunken vessels and larger items identified during previous surveys. The Federal Government's IYLP&E grant enabled the financing of these initiatives. The origins of these larger items attracted very little compliance action from stakeholders especially the pontoons which genuinely posed a maritime risk to boating. Clean4shore simply "got the job done", with Central Coast Council refunding the disposal fees on the collected pontoons.

The school interest in 2018 was "overwhelming" due to prior promotion and a funding commitment to 'keep the program going'. Terrigal High School, Erina High School and St Edward's College joined the program early in 2018, with each school completing multiple field trips during the year, taking ownership of their local waterways. A highlight of the year was the forum and field trip completed by Pretty Beach Public School, with year six students venturing into the local mangroves, beaming with smiles and excitement, to retrieve plenty of litter. The expansion of our school program included participation from The Beach School at Allambie Heights and Rouse Hill Anglican College.

Greater Sydney Local Land Services and Hornsby Shire Council provided grant funding for local high school attendance on the Lower Hawkesbury River estuary, with St Leo's Catholic College joining established Clean4shore schools Asquith Boys and Asquith Girls High Schools and Cherrybrook Technology High School. This grant funding extends into 2019.

Clean4shore's educational promotions within the schools generated further interest, with group forums and assembly speaking completed at St Edward's College, The Beach School, Terrigal High and Cherrybrook Technology High.

Derelict oyster leases infrastructure continues to be collected and highlighted on every field trip within Brisbane Waters. Derelict leases are "off limits" to Clean4shore, due to compliance issues.

Winning the NSW Landcare Award in 2017, in the "Coastcare" enabled Clean4shore to represent NSW as a nominated finalist in the 2018 National Landcare Award Coastcare category, a wonderful achievement and great recognition for the Program. Being a finalist meant that Clean4shore could then be voted for in the People's Choice category with the other 64 finalists at the National Awards. Clean4shore's promotion of this award was outstanding through our social media networks, radio and television promotion and our school's social media connections. Clean4shore was announced the winner of the "People's Choice Award", earning the tag as Australia's most popular Landcare program.

Clean4shore's connection with the community entered "the dark side" as the fate of the "homeless" was highlighted by a campsite found close to Narara Creek. Federal Member for Robertson Lucy Wicks, was deeply moved as the site had evidence of children living there and drug related paraphernalia present, together with decaying clothes and food. The Glen team removed the rubbish, and the Department of Community Services, Council, Police and local Mental Health support personnel achieved a positive outcome for those involved.

The Tuggerah Lakes program, funded by Central Coast Council, commenced in the second half of 2018 with the Clean4shore "tinny" being utilised to survey and clean Chittaway Point, Wyong River and Ourimbah Creek, utilising volunteers from the "work experience program" and The Glen. National Parks staff assisted Clean4shore to highlight potential sites in lower Lake Macquarie and Lake Munmorah. Clean4shore will engage local school to complete these tasks, including sites at The Entrance during 2019.

The State Governments introduction of the "return and earn" scheme, plus major supermarket retailers ban on "plastic bags" had an immediate impact on the volume of "fresh" bottles and grey supermarket bags found in the waterways. The students initial reaction to this initiative was to eagerly collect the "fresh" cans and bottles, delivering hundreds of items back for a cash refund. Community response was also instant as the fresh items quickly disappeared responsibly disposed by the general public. Clean4shore highlighted this outcome to our local State Politicians, who have followed this program, keen for positive results. Clean4shore also highlighted the plastic bag issue to the supermarket executives at the National Landcare Awards, with many State Governments still having their "heads in the sand" over the recycling issue.

On much more positive note, the absence of major storms and flooding rain during 2018 allowed Clean4Shore to make a major "dent" in foreshore litter both visible and unseen in the foreshore mangroves. Statistics of collected litter were greatly reduced, students reported a reduction in "unwanted" plastic in school canteens with the ABC "War on Waste" having profound impact on the community, especially students.



Tangaroa Blue “stats” dirty work at St Edwards College



Seacoast team “in kind” work on the Hardy’s Bay pontoon



National Landcare Awards Night – Brisbane 2018
With Rebecca Mooy and Vanessa Keyzner



Kincumber High School – Big Load

Comparisons with 2017 highlighted 36 additional field trips completed in 2018 with pre planning from schools and secured funding from the Federal Government Grant generating greater program interest. The average number of items collected was down, especially from Brisbane Waters, as a result of the “bulk” of the litter being collected in previous years, and the absence of “fresh” cans and plastic bottles thanks to the State Governments “Return and Earn” scheme. The total weight increased, which was expected with the additional field trips, together with both years returning more bulk larger items such as pontoons and derelict vessels. The volunteer numbers and hours increased, however Clean4shore completed more litter hotspot surveys during 2018. The absence of excessive flooding and storms continued from 2017 to 2018.

Graham Johnston
Project Manager
Clean4shore

Clean4shore Project Summary 2018

Location	Completed Field Trips	Collected Items	Weight Tonne	Volunteer Numbers	Volunteer Hours
Brisbane Waters	77	107,336	27.900	414	1460
Hawkesbury River Estuary	31	26,292	33.900	180	617
Tuggerah Lakes	6	3,658	.800	6	24
Totals	114	137,286	62.600	600	2101

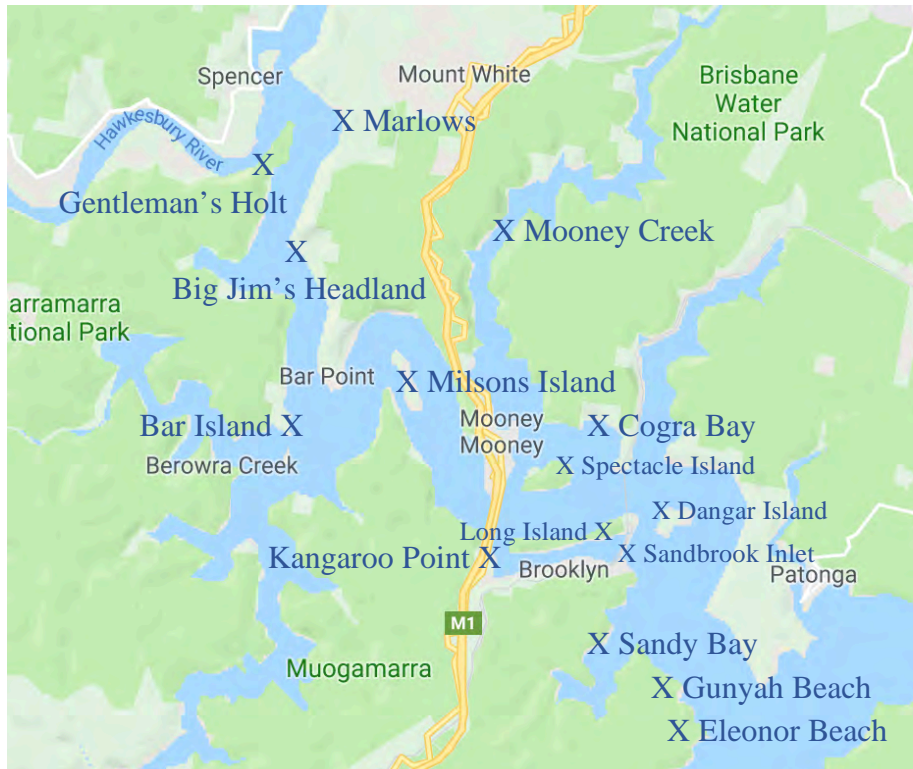
Comparison from Project Summary 2017

Location	Completed Field Trips	Collected Items	Weight Tonne	Volunteer Numbers	Volunteer Hours
Brisbane Waters	36	86,065	13.265	239	883
Hawkesbury River Estuary	40	20,568	43.640	185	720
Totals	76	106,636	56.905	424	1,603

Clean4shore Total Summary from 2014 - 2018

Year	Completed Field Trips	Collected Items	Weight Tonne	Volunteer Numbers	Volunteer Hours
2014	81	131,631	71.4	691	2847
2015	39	193,243	34.9	465	1774
2016	67	182,800	52.2	554	2160
2017	76	106,636	56.9	424	1603
2018	114	137,286	62.6	600	2101
Total	377	751,596	278.0	2,734	10,485

HAWKESBURY RIVER SUMMARY



The Federal Government's "Improving Your Local Parks and Environment Grant" (IYLP&E) enabled immediate work to commence on the Lower Hawkesbury River estuary. Hornsby Shire Council and Greater Sydney Local Land Services provided Clean4shore a "much needed" grant to complete tasks, with a focus on the southern side of the Hawkesbury, utilising schools within their Shire. Targeted email, social media advertising and school forums promoted this grant, with final grant completion in 2019. Proactive attendance was received from our grant providers on these Hornsby Shire field trips. Many thanks to David Bolton, Ana Rubio and Rebecca Mooy for their participation.

The illegally dumped pontoons, sighted and reported in 2016, and partially removed in 2017, were targeted and removed early in 2018. Fifteen of these concrete covered polystyrene jetty supports were found at one site alone upriver of Bar Point. Compliance from stakeholders targeting ownership was "non-existent", with many of these pontoons "oozing" polystyrene into the waterway. Central Coast Council refunded Clean4shore with disposal charges, yet these pontoons were found on our local beaches, and into Brisbane Waters, which surely indicates the movement of these large objects, creating a "maritime hazard" and requiring stakeholder attention.

Several derelict barges in the Mooney Mooney and Cogra Bay locality were dismantled and removed. Cherrybrook Technology High and St Leo's College ventured out into Mooney Mooney mangroves, uncovering additional old fiberglass vessels decaying in the water. Bar Point & Bar Island mangroves received several clean up, with local resident assistance and gratitude supplied to the volunteers.

Sandbrook Inlet, locally known as "The Gut", had four extensive clean up's covering Long Island and the Brooklyn mangroves. This Inlet continually receives floating litter from "upstream". Local marine "dumping" occurs from recreational vessels, with storm damage litter from moored vessels

and residential and roadside litter draining directly into this waterway. The far eastern corner of the Inlet, adjacent to the railway line, captures much of this floating litter, especially polystyrene.

Spectacle Island also collects floating litter from “further upstream”. The Beach School and Rouse Hill Anglican College circumnavigated the Island to complete their cleanup task.

Upstream from Bar Island, as far as Gunderman, surveys and clean-ups were completed by The Glen, Rouse Hill Anglican College and corporate groups Telstra and Baltimore Aircoil. Almost two tonnes of litter was removed from this section of the lower Hawkesbury River.

Wendoree Park mangroves were surveyed on two occasions, following local concerns raised through our Facebook page. This area requires favourable high tides and will receive further attention in 2019.

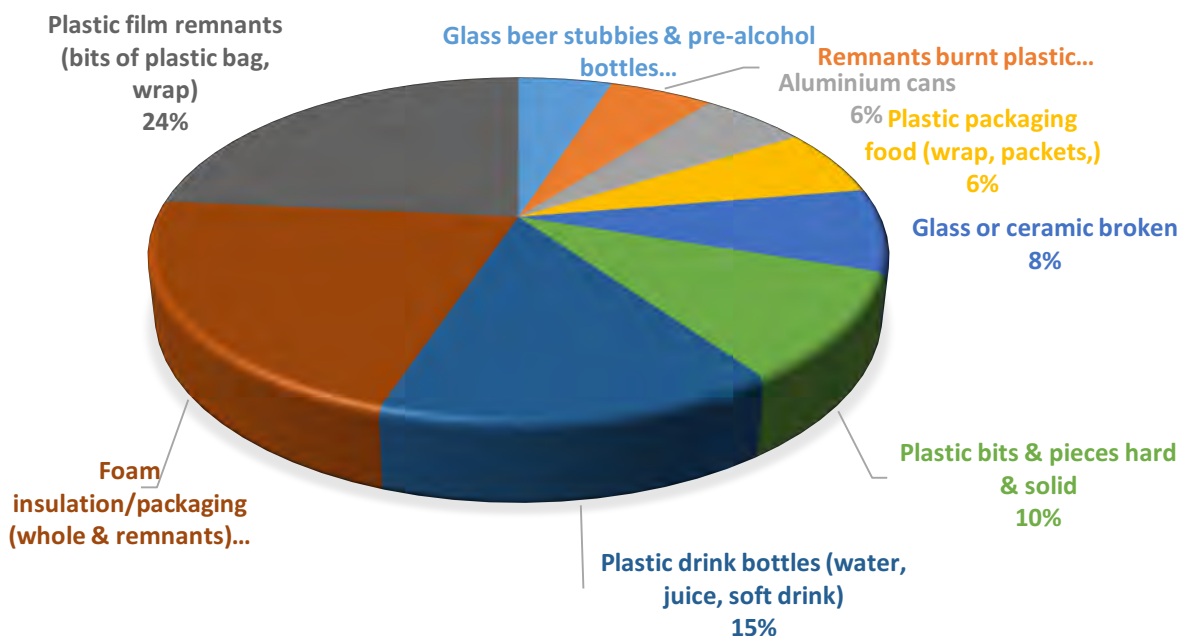
Berowra and Cowan Creeks received minimum attention in 2018, both waterways reported in good condition, and seemly well respected by recreational boating enthusiasts. The upper sections of Mooney Creek received a visit from the “Support Unit” of Brisbane Water Secondary College removing a large sunken fiberglass vessel, and marine product from Piles Creek.

Thirty one field trips were conducted on the Hawkesbury River and tributaries, weighing three tonne of waste. This included the twenty pontoons and five derelict vessels.

Barge transportation, disposal, removal by crane and “tip truck” transportation of rubbish to “Woy Woy Tip” is successfully completed by Rob Moxham’s team of Mitchell, Lee and Rob himself. This group enabled Clean4shore to ‘tackle’ many difficult tasks, and we extend our gratitude to their efforts.

The lack of major storms and flooding has contributed to the Hawkesbury presenting in “sparkling condition”. Notwithstanding pontoons with exposed polystyrene still exist in Cogra Bay and marine litter continues to build from derelict and abandoned vessels, especially in Sandbrook Inlet. Our volunteers and funding providers have provided twelve months of valuable service, which will continue into 2019.

Hawkesbury River Top 10 Items Collected



Hawkesbury River Big Loads



Dimension Data



Hawkesbury
Rob Moxham's Crane Offload



Telstra



Telstra



Bill (always keen for a trip out)



Rouse Hill Anglican College

Hawkesbury River Field Trips 2018

Date	Group	Site	Weight	Volunteers	Total Hours
03/01/18	Clean4shore	Sandbrook pontoons	2.520	1	3
04/01/18	Mac SLSC	Bar Point pontoons	420	3	8
15/01/18	Macs SLSC	Spencer Survey	0	1	5
16/01/18	Macs SLSC	Bar Point pontoons	2.180	1	4
23/01/18	Macs SLSC	Cogra Bay vessel	520	1	4
30/01/18	Macs SLSC	Cogra Bay vessel	780	1	5
01/02/18	Green Army	Bar Point pontoons	13.720	7	28
05/02/18	Macs SLSC	Mooney Creek	330	2	6
08/02/18	The Beach	School Presentation	N/A		
15/02/18	The Beach	Spectacle Island	140	5	12
22/02/18	The Glen	Big Jims Headlands	320	6	18
15/03/18	Clean4shore	Tyrepower Delivery	1.700	0	0
04/04/18	Cherrybrook High	Mooney Creek	500	17	68
10/04/18	St Leo's College	Hawkesbury Mooney	260	12	48
11/04/18	Green Army	Bar Point / Mooney	220	6	24
16/05/18	Rolland Hassall	Mooney The Vines	120	4	12
18/05/18	BWSC Support U	Mooney Creek Boat	620	4	16
25/05/18 *	Cherrybrook High	Long Island	700	15	52
28/05/18	Baltimore Aircoil	Bar Point Marlows	720	14	52
24/08/18	Cean4shore	Tyre Cleaning Del	N/A		
16/10/18	Work Experience	Wendoree Park	120	1	4
05/11/18	Cherrybrook High	Bar Island	220	15	52
10/11/18	Clean4shore	Hawkesbury Berowra	N/A	1	3
13/11/18 *	Asquith Girls High	Lon Island Sandbrook	220	13	39
15/11/18	Telstra Landcare	Hawkesbury Spencer	680	12	42
16/11/18	Clean4shore	Cogra Bay	100	1	3
03/12/18	Rouse Hill College	Bar Point	180	12	36
04/12/18	Rouse Hill College	Sandbrook Inlet	180	11	33
13/12/18 *	Asquith Boys High	Sandbrook Inlet	360	12	32
24/12/18	Macmasters SLSC	Hawkesbury Pontoons	5.860	2	8
30 Field Trips Completed Funding Hornsby Shire Council/GSLLS Balance funding Federal Government IYLPE Grant			33.690 Tonnes Remove	180 Volunteers Involved	617 Total Hours

Hawkesbury River Issues of Concern

Many derelict or abandoned vessels are on the Hawkesbury foreshore, often simply falling apart for our volunteers to clean up. Stronger compliance is needed on these vessels.

Sandbrook Inlet is an ongoing concern with marine litter, dumped or blown off vessels, or from vessels abandoned on the foreshore.



Hawkesbury River concrete covered polystyrene pontoons many still to be discovered all oozing polystyrene directly into the water. This was first reported in 2016.

Bill on two pontoons, ready for removal.



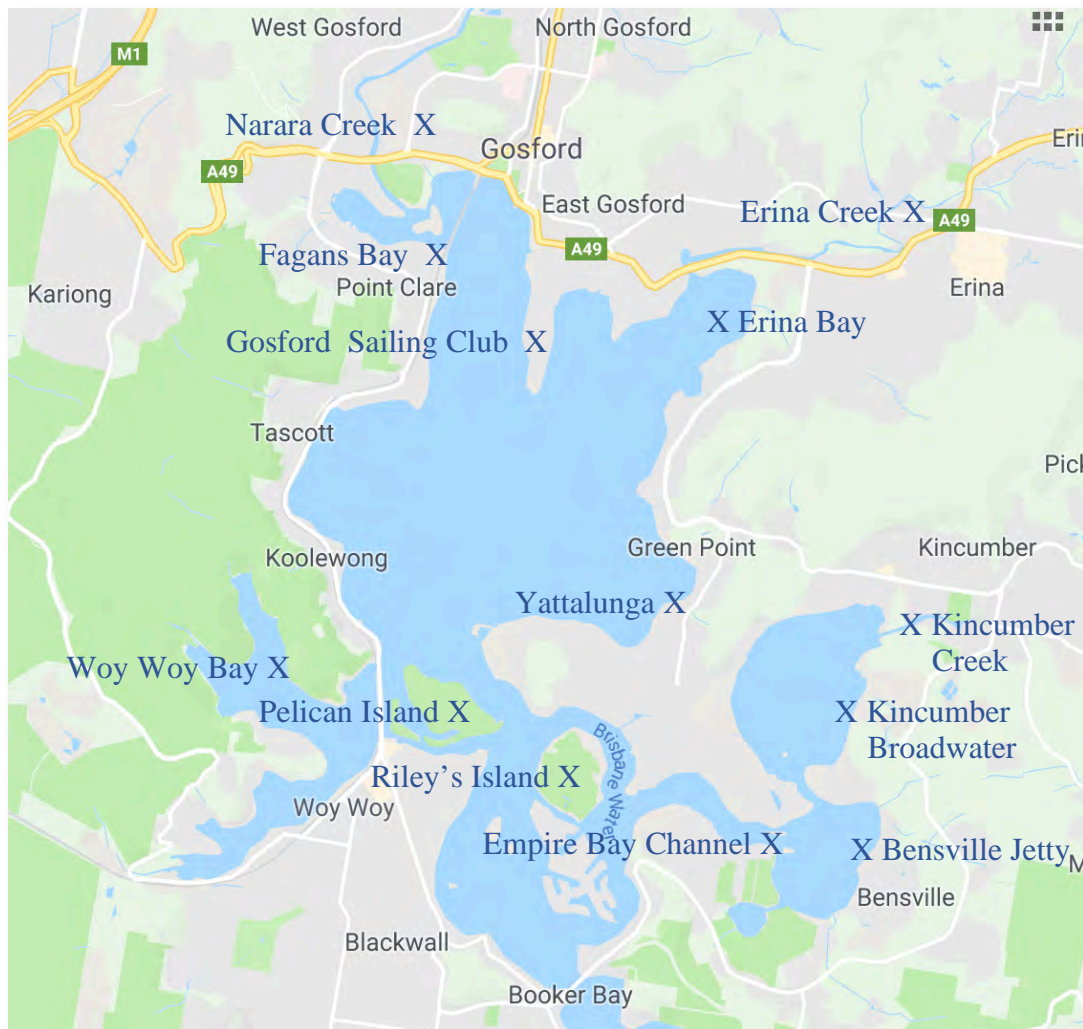
Hawkesbury River Groups



Hawkesbury River - Cool Shots



BRISBANE WATERS SUMMARY



The Federal Government's IYLP&E Grant enabled immediate commencement to the 2018 program with surveys into Erina and Narara Creeks plus a clean-up of the "hot spot" in Fagans Bay West Gosford by the local MacMaster's Beach Surf Club.

With school commencing, our students were very keen to get out on the water and tackled one of our major issues from last year, "oyster product". The cone shaped oyster baskets that have "washed up" from the Pelican Island lease, plus a floating derelict oyster shed were all removed. The "Telstra" cord holding these baskets to the lease simply "fell apart". An "on site" decision to remove all of the cone baskets from the lease, rather than wait for them to fall off, was made, and the lease was cleaned. "String" of baskets were later found submerged close to the lease, these were also removed. Almost five tonnes of oyster product was removed from this abandoned lease, by The Glen, The Department of Juvenile Justice and Brisbane Water Secondary College.

The Creeks of Kincumber, Erina and Narara were clean by local high schools. Further clean-up work was completed in the "upper" sections of Narara Creek where local "dumping" is an issue plus the never ending supply of roadside and storm litter that enters this waterway through the network of "open drains".

St Edwards College at East Gosford plus Terrigal High School joined the program, concentrating on the Caroline Bay, and Erina Creek & Bay, with seven field trips between them. Kincumber High School maintained their enthusiasm with Narara Valley High school completing five field trips utilising their “support students’ on several outings.

On the Southern end, Brisbane Water Secondary College remained highly active as their “Bushcraft”, “Support” and The Croft maintained the vast foreshore closer to Woy Woy. This College also supported the highly successful “Floating Landcare” program supported by Greater Sydney Local Land Services and local NSW National Park Rangers. Students from the College were mentored by Bouddi Bushcare volunteers on weed management issues on Pelican and Rileys Island. Overall a great introduction to Landcare, by students, well worth repeating.

Community events were not well publicised or promoted by Clean4shore, an area of our marketing that has room for improvement. However once contact was made with Gosford Girl Guides the enthusiasm was greatly enhanced with a field trip on Narara Creek. Their “can do” attitude was infectious with challenges including an illegally dumped “cool room” posing no problem as teamwork, safe handling and lifting skills used to remove this cool room, completely filling the barge. The off load onto the trailer presenting even more of a challenging. The Girl Guides are here to stay, expressing an interest in continuing to participate in Clean4shore activities.

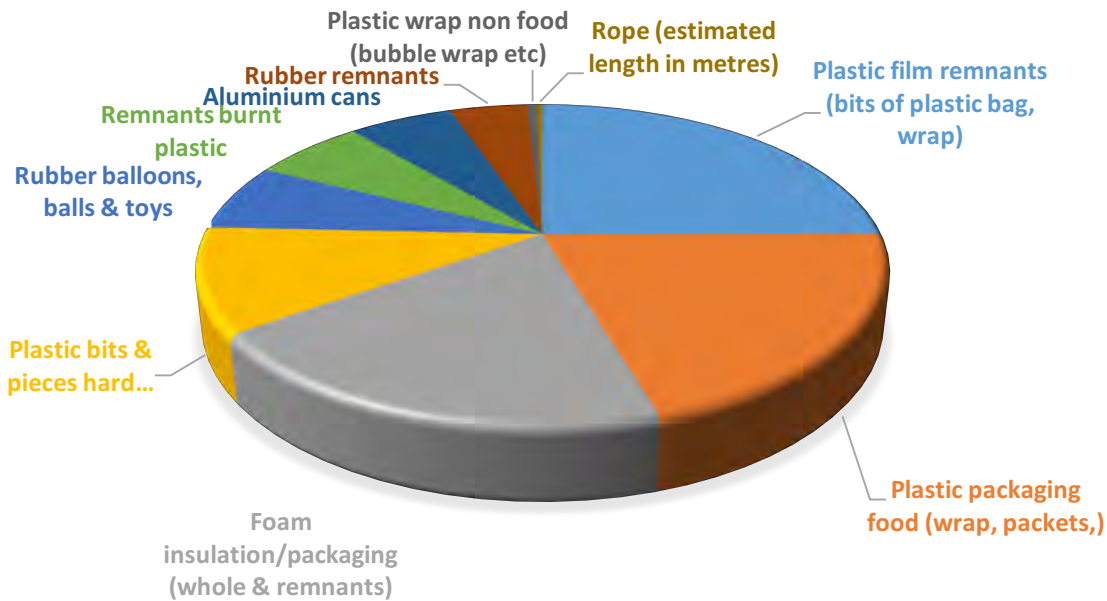
An inquiry from local Pretty Beach Public School had Clean4shore presenting the program at the school to year six student. The following week they “kitted up” and ventured “over the road” to their local mangroves, in low tidal mud, laughing with big smiles whilst removing plenty of litter and oyster product from “The Dog Track”. The site of Primary School student carrying oyster product out of the mangroves created plenty of interest. Well done kids.

As with the Hawkesbury River, major storms and flooding was absent during 2018, however, plenty of litter was recovered, hidden further into the mangroves, and smaller in size. The impact of the State Governments “return and earn” scheme plus the ban on grey supermarket bags greatly reduced the amount of “fresh” litter collected by the volunteers. The percentage of freshly labelled items continues to decrease, however there is an increase in the smaller food items and polystyrene. With secured funding and support from our stakeholders plus keen interest from the schools, and further promotion within community groups Clean4shore can expect to get “on top” of the local waterway litter numbers within Brisbane Waters.



Floating Landcare & Brisbane Waters Secondary College Students on Pelican Island

Brisbane Waters Top 10 Items Collected



Note: The vast majority of litter, included in the top 10, is generated from Erina, Narara and Kincumber Creeks. Roadside industrial and residential litter is the source of this litter.



St Edwards College – deep in the mangroves.



Erina High School water testing with litter.

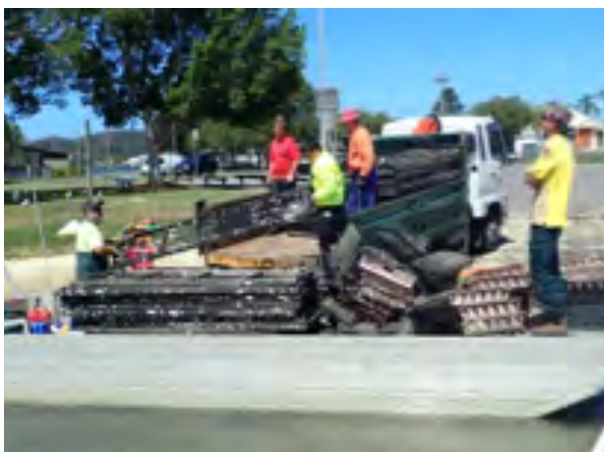
Brisbane Waters - Issues of Concern



The plight of the homeless was confronting for Clean4shore and the attending volunteers, with child material and drug administration implements present. This large site on Narara Creek was partially removed by The Glen team. The balance of the site was tidied with DOC and Council intervention. Clean4shore has monitored



Four of these pontoons, consistent with those recovered on the Hawkesbury River, ended up in Brisbane Waters. Two were removed with the help of local Kincumber residents, towed by the tinny up Kincumber Creek, winched out of the water by Seacoast Seafoods and recycled by JD's Family Auto. Good Outcome!!!



Derelict oyster product removed from Pelican Island. National Parks assisted in this offload. Abandoned leases and infrastructure contributed 1130 items removed by Clean4shore in 2018

Case Study: Narara Creek and Fagans Bay – West Gosford

Could this be Australia's most littered waterway?



Narara Creek and Fagans Bay have twelve kilometres of tidal water foreshores, mostly surrounded by mangroves, and bordering a major industrial, and residential zone with large sporting fields and the Gosford CBD close by. Numerous “feeder” creeks on all sides of this waterway deliver storm, roadside and industrial litter directly into the Creek and Bay.

A railway line extends from Point Clare to Gosford, supported by a rock wall 600 metres long with a small opening allowing tidal water and recreational vessels to enter from Brisbane Water. This rock wall effectively “blocks” floating litter from entering Brisbane Waters as low tidal mud banks create “eddies” that move floating litter around in and around Fagans Bay.

The dense mangroves filter the tidal water removing and retaining the litter. Tidal water then “pushes” the litter away from the foreshore, resting on high tidal banks generally out of sight from the viewing public. Surveys completed in January 2016 uncovered this hidden litter, with Clean4shore describing the alarming amount as “third world” in the heart of Gosford CBD.

The clean-up task commenced in 2016 with alarming statistics of plastic bottles and polystyrene removed by the volunteers. One trip alone in August 2016 had 196 large bags containing 9860 plastic bottles & 3250 pieces’ polystyrene filling two oyster barges. Heavier items including tyres, derelict vessels, industrial products and illegal dumping all found and removed over the past three years.

Throughout 2017 and 2018 further surveys and field trips found bulk rubbish in all sections of the mangroves within this waterway, again out of sight.

Storms and king tides “pick up and transfer” the floating litter from one site to another, plus the tidal mud banks and dense mangroves indeed make this a challenging task.

Statistic do suggest that litter numbers have dramatically reduced, which is correct especially with the plastic bottles. However small soft and hard plastics, food wrappings and smaller polystyrene pieces are now more visible, previously hidden by the larger items.

The State Governments “return and earn” incentive had an immediate impact on the number of ‘fresh’ bottles and cans collected with the absence of major storms and flooding during the past three years also having a positive impact.

Clean4shore completed surveys and clean-up in the upper sections of Narara Creek where illegal dumping and poor industrial practices contribute to the collection further downstream.

Narara Valley High School, Gosford Girl Guides and North Gosford Learning Centre provide local volunteer support with Clean4shore actively encouraging local industrial businesses to adopt a sensible approach to the waste management practices.

The future management strategy for this estuary must be in litter retention traps, installed and managed by Council, plus compliance inspections on the industrial sector in relation to their rubbish storage and removal. Additional signage on the busy Central Coast Highway, plus penalty fines for littering are possible deterrent options.

Narara Creek and Fagans Bay, both beautiful waterway that has quietly stored masses of litter, effecting native plants and wildlife plus producing “millions” of micro plastics close to a large population will benefit from Clean4shore’s intervention.

How many more waterways are in this condition?

Case Study Narara Creel/Fagans Bay West Gosford							
Year	Field Trips	Plastic Bottles	Food Wrappings	Soft Plastic Pieces	Polystyrene Pieces	Straws	Total 5 Items
2016	8	16,216	2961	10,125	13,573	685	43,560
2017	5	3773	2169	4380	3660	485	14,467
2018	13	4088	2563	3944	5042	838	17,267
	26	24,077	7693	18,449	22,275	2,008	74,502

Clean4shore: National Landcare People’s Choice Award Winner



OCTOBER 24, 2018.

Clean4Shore received the most votes of 65 competing projects in an online poll in the lead-up to the awards ceremony.

Clean4Shore leads up to 70 field trips a year, engaging the community, schools, disability, indigenous and business groups in the removal of litter and debris from around the Hawkesbury River, Brisbane Waters and Tuggerah Lakes. Clean4Shore facilitator Mr Graham Johnson said he was excited to win the award. “I’m very proud that land-carers have voted for litter management. “I have a great support group from my Facebook page, and from people that follow our program and are willing to get out there and do something about the litter in our waterways. For us, this is a pretty big achievement. “It makes it all worthwhile,” he said. The People’s Choice Award was one of 11 presented during the National Landcare Awards ceremony.

SOURCE: Excerpt Media release, 16 Oct 2018 Jean Marc Maissin, Landcare Australia

Brisbane Waters Field Trips 2018

Date	Group	Site	Weight	Volunteer Involved	Total Hours
02/01/18	Macs SLSC	Fagans Bay	140	2	6
11/01/18	Clean4shore	Erina Creek Survey	N/A	1	3
12/01/18	Macs SLSS	Narara Creek Survey	N/A	2	6
15/01/18	Macs SLSC	Spencer Survey	0	1	5
06/02/18	Clean4shore	Narara Creek Boat	220	Nil	Nil
14/02/18	The Croft	Woy Woy Bay	360	6	18
28/02/18	F Landcare BWSC	Pelican Island	120	7	21
01/03/18	St Eddies College	Erina Bay	640	11	44
02/03/18	BWSC Bushcraft	Tascot Woy Woy Bay	720	17	51
04/03/18	Clean up Aussie	Empire Bay	220	17	51
07/03/18	F/Landcare BWSC	Woy Pelican Island	1,420	6	30
09/03/18	BWSC Support	Empire Bay Davistown	100	7	21
12/03/18	Dept Juvenile Justice	Pelican Island	1,620	8	36
14/03/18	Green Army	Narara Creek	440	10	50
19/03/18	The Glen	Bensville	840	6	24
22/03/18	Clean4shore	Pelican Island Pontoon	60	0	0
26/03/18	Kincumber High	Kinny Broadwater	380	13	52
27/03/18	Erina High	Erina Creek	220	17	51
30/03/18	Clean4shore	Narara Creek Survey	0	0	0
05/04/18	BWSC Support	Umina Creek	60	6	6
09/04/18	Narara Valley High	Narara Creek	420	12	52
12/04/18	BWSC The Croft	Woy Woy Bay	200	6	15
26/04/18	Clean4shore	Moxhams Narara	240	0	0
02/05/18	Clean4shore	Narara Creek Survey	0	0	0
03/05/18	Clean4shore	Narara Creek Survey	N/A	0	0
07/05/18	Clean4shore	Narara West Gosford	220	0	0
08/05/18	Clean4shore	Narara Carrington St	440	1	3
09/05/18	Narara Valley High	Narara Creek	740	12	48
15/05/18	Clean4shore	Erina Creek Survey	N/A	1	3
17/05/18	St Edward College	Caroline Bay Erina	540	12	48
23/05/18	Clean4shore Survey	Pelican Island Saratoga	5	0	0
31/05/18	The Glen	Narara Creek	1,200	8	32
04/06/18	Narara Valley High	Narara Creek	160	8	24
08/06/18	BWSC Bushcraft	Pelican Island Woy Bay	480	15	60
12/06/18	Macs SLSC	Pelican Island	400	1	4
13/06/18	Macs SLSC	Pelican Island	1,380	1	4
15/06/18	BWSC Support	Pelican Island	380	10	25
11/07/18	Clean4shore	Narara Creek Survey	60	0	0
14/07/18	Clean4shore	Empire Bay Survey	180	1	3
16/07/18	Macs SLSC	Bensville	480	3	12

01/08/18	Clean4shore Survey	Empire Bay Bensville	N/A	0	0
03/08/18	Clean4shore Survey	Yattalunga Cockle Bay	N/A	0	0
13/08/18	Clean4shore	Narara Creek Survey	N/A	0	0
16/08/18	St Edwards College	Caroline Bay	200	12	36
17/08/18	Pretty Beach Public	Presentation School	N/A		
18/08/18	Nat Science Week	Adcock Park	160	1	3
20/08/18	Kincumber High	Kincumber Creek	360	12	36
21/08/18	Pretty Beach Public	Pretty Beach	360	14	54
23/08/18	Terrigal High School	Presentation School	N/A		
24/08/18	St Edwards College	Presentation School	N/A		
04/09/18	Clean4shore	Narara homeless site	N/A		
07/09/18	BWSC Work Exp	Narara Wicks interview	160	2	8
18/09/18	Work Experience	Mangrove Island Surv	0	1	4
19/09/18	F / Landcare BWSC	Pelican & Mangrove	340	3	12
20/09/18	The Glen	Narara Dump Site	740	8	24
21/09/18	Terrigal High School	Erina Creek	260	10	40
26/09/18	Narara High School	Fagan's Bay	380	12	48
27/09/18	Work Experience	Fagan's Bay	60	1	4
28/09/18	BWSC Bushcraft	Riley's Bay	780	5	20
02/10/18	Clean4shore	Fagan's Bay	160	0	0
03/10/18	F / Landcare BWSC	Pelican Island	180	2	8
22/10/18	Clean4shore	Fagan's Bay	80	0	0
25/10/08	St Edwards College	Erina Bay / Green Point	440	12	40
26/10/18	BWSC Bushcraft	Woy Woy Bay	420	10	40
31/10/18	F / Landcare BWSC	Woy Woy Bay	720	5	15
01/11/18	Terrigal High School	Erina Creek	440	12	36
02/11/18	BWSC The Croft	Tascott Yattalunga	260	5	15
03/11/18	Gosford Girl Guides	Narara Creek	660	12	40
08/11/18	St Edwards College	Caroline Bay / Saratoga	200	11	44
20/11/18	Kincumber High	Kincumber Empire Bay	400	9	33
21/11/18	F / Landcare BWSC	Rileys Island	500	6	24
25/11/18	Clean4shore	Hardy's Bay Pontoon	1,200	4	12
26/11/18	Narara Valley High	Fagans Narara Creek	460	10	34
18/12/18	F / Landcare	Rileys island	220	1	4
19/12/18	Clean4shore	Lynton Channel	180	0	0
22/12/18	KincumberResidents	Kincumber Broadwater	2,400	4	12
27/12/18	Macmasters SLSC	Bensville	180	2	6
77 Field Trips Completed Note: All funded from the IYLPE Grant			27.985 Tonnes Remove	414 Volunteers Involved	1460 Total Hours

Brisbane Waters Groups



St Edwards College, East Gosford



BWSC Support Unit



BWSC Bushcraft with local politicians



Pretty beach Public School



Kincumber High School



ET Australia's Green Army

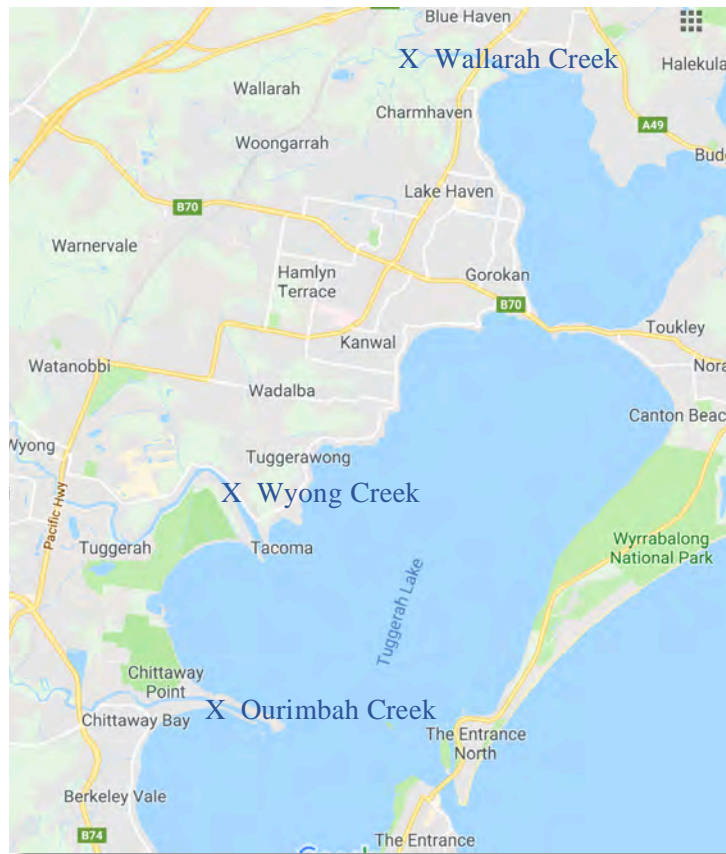
Brisbane Waters - Big Loads



Brisbane Waters - Cool Shots



TUGGERAH LAKES SUMMARY



Central Coast Council provided operational funding to re-commence the Tuggerah Lakes program also incorporating the lower Lake Macquarie foreshores within Councils boundaries. Clean4shore utilized the “tinny” to surveyed and clean Ourimbah Creek and Wyong River, utilising the ‘work experience’ program for voluntary assistance. The volume of litter was greatly reduced from the 2016 clean-ups with the small tinny successfully completing these tasks. The Glen removed a large load of mixed rubbish from the Northern headland of Chittaway Point with the Southern foreshore surveyed only. This site will need re visiting.

Local National Parks rangers from Lake Munmorah sought Clean4shores assistance to survey the Gwandalan Reserve and Crangan Bay foreshores on Lower Lake Macquarie. Extensive illegal dumping has occurred in this area requiring joint stakeholder intervention.

Clean4shore surveyed the Elizabeth Bay foreshore on Lake Munmorah, another site needing attention. Issues relating to the transportation of the barge to these sites prevented further promotion during 2018. Interest was received from St Peters Catholic College to commence the program in 2019.

Tuggerah Lakes Field Trips 2018					
Date	Group	Site Location	Weight	Volunteers	Total Hours
07/08/18	Clean4shore Survey	Chittaway Point	Survey		
30/08/18	Clean4shore Kincumber Work Experience	Ourinbah Creek	200	1	4
31/08/18	Clean4shore	Heriford Street Tyres	80		
25/09/18	Clean4shore & MacMasters Beach SLSC	Wyong River Upper Section	160	1	4
17/10/18	Clean4shore & BWSC Work Experience	Gwandalan Chain Valley Bay	Survey	1	4
17/12/18	The Glen	Chittaway Bay North Point	360	4	12
6 Field Trip Completed Funding from Central Coast Council GRANT			800 kilos Collected	7 Volunteers Involved	24 Total Hours

Tuggerah Lakes - Cool Shots



Plenty of trollies from Wallarah Creek.



Chitterway Point a hotspot for tidal and storm runoff debris

Key Supporters to Clean4Shore

The drive and motivation to get our volunteers involved in Clean4shore starts with the key supervisors and teachers at the schools, community and youth organisations. Our task is often very difficult, in challenging terrain and weather conditions. Some of these key people include:



Simon



Matt Simms (The Glen)



Mitchell



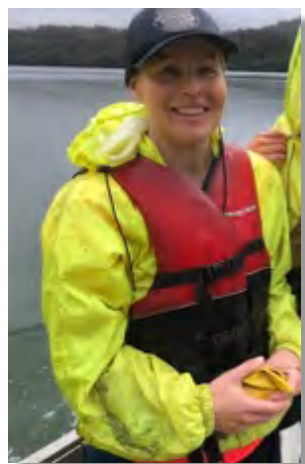
Seacoast Seafoods Team



Marni BWSC



“Joe” Cherrybrook High



Lauren (NVHS)



Ana Rubio - Hornsby Council

Clean4Shore Total Items Collected 2018

Collected Items	Brisbane Waters	Hawkesbury River	Tuggerah Lakes	Total
Cigarette butts & filters	330	16	0	346
Cigarette lighters	1564	374	37	1975
Pens, markers & other plastic stationary	751	157	6	914
Straws, confection sticks, cups, plates ect	2750	401	46	3197
Toothbrushes, brushes & combs, hair ties etc	146	17	3	166
Toys, party poppers, ribbons, clips & similar	2930	753	83	3766
Bleach & cleaner bottles	511	203	28	742
Lids & tops, pump spray, flow restrictor	3189	623	48	3860
Personal care & pharmaceutical packaging	63	10	0	73
Plastic bags supermarket, garbage, dog poo, ice	802	256	1	1079
Plastic containers non food (oil, sealant)	435	144	21	624
Plastic drink bottles (water, juice, soft drink)	11845	2736	45	15,341
Plastic packaging food (wrap, packets,)	13585	1156	760	14,928
Plastic wrap non food (bubble wrap etc)	368	84	187	464
Strapping band scraps	147	33	12	187
Strapping band whole (record as single item)	35	7	7	48
Bait & tackle bags & packaging	1032	286	6	1345
Bait containers & lids, bait savers	1399	218	25	1637
Commercial fishing remnants (float, pots,)	8	5	20	13
Cylume glow sticks	0	0	0	0
Fishing line in metres (recreational)	233	100	0	351
Recreational fishing items (lures, floats, rods,)	141	70	18	222
Rope & net scraps less than 1 metre	185	124	11	325
Rope (estimated length in metres)	195	84	1614	293
Plastic bits & pieces hard & solid	6963	1884	216	8893
Plastic film remnants (bits of plastic bag, wrap)	16578	4333	602	21,513
Remnants burnt plastic	4243	1005	192	5440
Foamed Plastic (Polystyrene) Items				
Foam buoys	85	46	5	136
Foam cups, food packs & trays	1768	305	53	2126
Foam insulation/packaging (whole & remnants)	13182	3949	451	17,582
Other Materials				
Oil globules & tar-balls	0	0	0	0
Sanitary (tissues, nappies, Condoms, buds)	94	9	0	103
Shoes leather & fabric	231	74	13	318
Glass & Ceramic Items				
Fluorescent light tubes and bulbs	6	5	1	12
Glass beer stubbies & pre-alcohol bottles	3204	912	96	4212
Glass jars & sauce bottles	29	40	0	69
Glass or ceramic broken	1335	1435	0	2770
Glass wine, spirit and similar bottles	704	221	28	953

Clean4Shore Total Items Collected 2018 Continued...

Cloth Items				
Binding, thread, string & cord natural	255	75	12	342
Cloth, clothing, hats & towels	455	128	22	605
Metal Items				
Aerosol cans	359	97	20	476
Aluminium cans	3927	1048	112	5087
Foil wrappers, packets, bladders & alfoil	107	39	2	148
Metal bottle caps, lids & pull tabs	79	0	0	79
Metal fishing items (sinkers, lures, hooks)	19	33	0	52
Tins under 4 litres (food, drink tins and similar)	114	60	3	177
Paper & Cardboard Items				
Newspaper, magazines & brochures	216	29	16	261
Paper & cardboard packaging	309	73	77	459
Tetra packs & drink cartons	473	6	9	62
Rubber Items				
Rubber balloons, balls & toys	4495	854	172	5511
Rubber footwear & thongs	973	327	56	1356
Rubber remnants	2910	820	105	3835
Wood Items				
Brooms, brushes & paint brushes	68	26	0	94
Processed timber, pallets & other wood	244	129	2	375
Wooden confection sticks, pencils, matches etc	30	6	0	36
Total Small Litter Items	105,493	25,815	3,658	134,966
Total Large Items	1,843	477		2320
Total Litter Collected	107,336	26,292	3,658	137,286

Larger Items Collected 2018	Brisbane Waters Tuggerah Lakes	Hawkesbury River	Total
Concrete polystyrene pontoons to 5 metres & 3 tonne	4	20	24
Oyster hardwood timber trays	120		120
Oyster plastic large trays	53	6	59
Oyster plastic cone baskets	214		214
Oyster plastic large baskets	8	68	76
Oyster plastic small baskets	201		201
Oyster breadbasket trays	102	12	114
Oyster plastic mesh approx. metre square	95		95
Oyster plastic poly infrastructure piping (2.5 metres)	40	11	51
Oyster nylon shade cloth (metres)	48		48
Oyster hardwood poles & infrastructure approx. 3 metre	38	5	43
Oyster black plastic sheeting (metres)	36	20	56
Oyster floatation rubber pieces	53		53
Oyster galvanised storage shed eight metres square	16		16
Plastic pontoon jetty 2.5 metres long(recycled)		1	1
Plastic outdoor chairs / furniture /fixtures/eski/baskets	40	14	54
Plastic pieces drums/ crates/car parts/boxes/pots/bouys	73	35	108
Plastic inflatable boat / large pool liner & signage	4	1	5
Plastic sailboard	1		1
Plastic 200 litre drums	14		14
Corflute advertising signage	2		2
Polystyrene complete boxes & lids & large pieces	22		22
Polystyrene / alloy cool room cladding 2.5 metres x 1.5	18		18

Larger Items Collected 2018 Continued...	Brisbane Waters Tuggerah Lakes	Hawkesbury River	Total
Fibreglass complete derelict vessels / canoes	14	6	20
Fibreglass boating parts & fixtures	2	28	30
Boating foam/ seats	11	18	29
Boating parts marine ply / oars / rudder	15	50	65
Boating complete timber barges / boats	1	2	3
Car / Truck tyres (cleaned recycled)	83	49	132
Foam mattress complete	7		7
Foam mattress pieces / chair pieces / cushions pieces	33	17	50
Foam lounge / chairs complete /car seat	9		9
Foam life jackets & boogie boards	10	11	21
Aluminium pontoon eight metres (recycled)	4	1	5
Metal outboard motor (recycled)	2	1	3
Metal white goods refridgerators /eski / computers/ TV	28	11	39
Metal ducting/drums/signage / trolleys/ gas bottles	19	53	72
Metal alloy building material / sporting goods / bicycles	12		12
Metal boating stainless parts / fuel tank (recycled)	2	4	6
Metal crab pots	41	3	44
Metal outdoor furniture / building material / tool / crane	16	3	19
Tarpaulins / boat covers	3	6	9
Timber treated pine & pallets pieces & fencing	199		199
Timber hardwood outdoor furniture & pallets & fixtures	12		12
Timber hardwood decking/jetty (recycled)/	29	1	30
Carpet pieces	11	2	13
Office chair & Office safe	3		3
Ceramic toilets & car battery	3		3
Household : Suitcase & Glass Suitcase & gym equipment	4		4
Drug taking syringes	66		66
Camping tent	2	2	4
Asbestos pieces 100 kilos		16	16
Total of Large Items Collected	1843	477	2320

Moving Forward 2019

There were forty three concrete covered polystyrene pontoons, illegally dumped in the Hawkesbury River, some weighing three tonne, that were found and removed by Clean4shore during 2017 & 2018. Compliance assistance on the source and prior ownership of these pontoons was “non existent”. With more sighted in Brisbane Waters, Clean4shore must attempt to have greater involvement and discussion with compliance stakeholders during 2019 on the expenditure involved in pontoon removal. Derelict and deserted vessels continue to “appear” in all waterways, and again improved cooperation with stakeholders is required. Our current grant, although substantial, was not targeted for this task.

The introduction of the State Governments “Return & Earn” scheme in July 2018 had an immediate impact on the “fresh” plastic bottles and cans collected during the second half of that year. The presence of additional food wrappings and pieces of plastic are now more common, and our volunteers are filling “less bags with more smaller litter”. Consumers are now more conscious of the product that they are purchasing, with plenty of advertising and media focussing on “less plastic”. Supermarkets responded to the “ban the bag” campaign, removing the “grey plastic” bags, and it is a pleasing sight as consumers “bring in” their own bags to supermarkets.

Clean4shore’s efforts in winning the National Landcare “Peoples Choice” Award, certainly gave the program a “boost” with increased promotion and interest in the program’s outcomes. Clean4shore is surely winning the litter battle on the Central Coast, in respect to small litter items. The expansion of the program to Sydney, Newcastle and Mid North Coast waterways is indeed possible, pending ongoing financial support.

Clean4shore’s current funding through the Federal Government IYLP&E Grant, Greater Sydney Local Land Services, Hornsby Shire Council and Central Coast Council increased school and community interest in organised field trips will ensure progress of the program. Looking forward, expansion plans will require larger grants to be sourced and secured.

The introduction of Clean4shore students working with Landcare volunteers through programs such as “Floating Landcare” requires expansion. Young people do have an interest in preserving our environment, with Bushcare and Landcare groups needing to “get into” the school system, to improve participation and education with our younger volunteers. Clean4shore is committed to working with Landcare on this program during 2019 and Clean4shore extends its thanks to Vicki, Deb and the Bouddi Bushcare volunteers.

Tuggerah Lakes litter field trips will increase during 2019, as logistics and barge transport issues are overcome. Clean4shore will re-establish contact with National Parks to survey additional sites in lower Lake Macquarie and Lake Munmorah. Strong interest from schools and youth organisations, in this area has been received. Disposal options with “charity status” will need to be secured at the local land fill.

Surveys utilising “work experience” students, a success in 2018, will be continued, especially in the smaller creeks where the “tinny” excels. The mentoring that our barge operators provide to the students is also “priceless” and a credit to their skills, knowledge and communication skills, especially with ‘troubled’ youth.

Oyster product, from derelict or inactive oyster leases, continues to be a major “issue” for Clean4shore, as oyster trays and baskets continually wash off these leases. Clean4shore was briefed by Fisheries on the legal options currently underway.

Our secure grants have allowed for sufficient PPE for our volunteers. Clean4shore’s healthy lunches, on completion of each trip, enables group discussions and education outcomes for the students to be discussed and is always a pleasant way to finish a field trip. The attendance of stakeholder “delegates” on field trips during 2018 is also rewarding to the volunteers and attending stakeholders. Many thanks to Ana, David, Rebecca and Warren for engaging so successfully with our volunteers.

The Clean4shore Facebook and Instagram page, plus our regular media commitments, field trips and media reports provides data and information to all supporters and stakeholders. Improvements are needed to implement and manage our “web site”. Clean4shore will continue to promote the program through school and community forums.

Clean4shore partners Greater Sydney Local Land Services, Hornsby Shire and Central Coast Councils, Tangaroa Blue plus Brisbane Water National Parks will continue to provide essential support and guidance to the program. This guidance and compliance is essential to protect the program and our volunteers.

Continued support from school and organisational management is very positive. Viewing students trudging through mud and mangroves, is certainly “out of the normal” as an approved activity. The positive attendance by school executives on our field trips, engaging with the students on a difficult task is indeed encouraging, with feedback keeping Clean4shore “on track” in moving forward.

The momentum, education, safety and enthusiasm that Clean4shore generates on individual field trips reflects directly on the “army” of schools, youth, corporate and community organisations involved. The smiling faces of volunteers, during and on completion of a difficult task, keeps our barge operators and myself motivated to keep the program functioning.

Clean4shores efforts are definitely making the difference.

Graham Johnston
Clean4Shore
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Lucy Wicks and Jono at the Narara Creek Homeless Campsite

The Coalition Government delivered funding for Clean4Shore's important work as part of our \$2.2 million Local Environment Plan for the Central Coast. This was an 2016 election commitment to help improve the region's local parks and community facilities and develop more accessible green spaces.

Clean4Shore is a fantastic organisation that partners with local schools, youth and social services as well as commercial businesses to assist with clean-up activities. The project also funds educational events with local schools to improve student understanding about the impact of litter and debris on local waterways and natural ecosystems across the Central Coast.

Jono and his team do extraordinary work removing rubbish – often illegally dumped – in our pristine foreshores, mangroves and estuaries. I'm pleased that Federal Funding has helped Clean4Shore continue their amazing work for our community and our environment



LUCY WICKS MP
Federal Member for Robertson

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