

"Communities Protecting Local Waterways"

ANNUAL REPORT 2019





program.















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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 2019, with surveys and planning for the schools and organisations eager to participate during the year. The IYLP&E grant provides three years of secured funding, due for completion in 2020, and is managed by Central Coast Council. The aim of the grant is for Clean4Shore to improving the waterways, parks and reserves within the Robertson Federal Electorate.

Central Coast Council provides the management, guidance and compliance for this grant, with Clean4Shore providing field trip coordination, reporting and financial planning. Regular consultation between Central Coast Council's Senior Estuary Management Officer, Warren Brown and stakeholder Greater Sydney Local Land Services (GSLLS), NSW Maritime & Fisheries plus National Parks ensures successful transition for Clean4shore to coordinate planned field trips by schools and organisations 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. Clean4Shore also received a Federal Government Grant through the local members for Dobell, Emma McBride, for field trip funding and equipment required to operate the program.

Greater Sydney Local Land Services and Hornsby Shire Council's field trip grant from 2018, continued through 2019 for Hornsby Shire based schools to attend field trips on the Hawkesbury River. Stakeholders from GSLLS and Hornsby Shire Council, attend each field trip providing valuable education outcomes on marine litter and catchment management 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 Clean4Shore program through their social media outlets.

The Environment Protection Authority continues to support Clean4Shore's application for "Charity Status" at Woy Woy and Buttonderry Landfill. Central Coast Council also supports this application which greatly reduces our disposal fees to \$36 per tonne and \$16.39 minimum fee. Central Coast 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, Tuggerah, Lower Lake Macquarie & Hunter) plus Rob Moxham's Hawkesbury River team (Mitchell, Lee and Brett) providing valuable mentoring, local and maritime education, coupled with the important role of removal, storage and unloading of the 59 tonnes of rubbish collected during 2019. Their guidance and recognition of risk management procedures is vital to Clean4Shore's operations as is their positive interaction with all the attending groups.



Clean4Shore field trip Ready To Go..



Clean4shore acknowledges the Department of Education, for providing the vision and approvals to allow student participation during 2019. The program can successfully adapt to include students in support units, behaviour management, environment, geography, mainstream and work experience. The supervision provided by the attending staff was at all times proactive, educational and enjoyable in often an uncomfortable environment.

The Floating Landcare program, promoted and supported by National Parks and Local Land Services engaged student participation on Bushcare programs on Pelican and Riley's Island. Clean4shore assisted in financing this program to provide further educational outcomes on weed management whilst under the supervision of Bouddi Bushcare volunteers. Many thanks to Deb Holliman, Vicki Elliot and the entire Bouddi Bushcare volunteers for their positive assistance with the students attending this program.

Clean4shore completed a presentation at the State Litter Convention in a highly engaging and challenging forum which was well received. Attendance at the State Landcare and NSW Coastal Conference and Coastal Management Awards had Clean4shore figure prominently in major awards. Many thanks to NSW Landcare for recognition and support of litter management issues.

"In Kind" support is essential for all organisations including Clean4shore and this is often requested at very short notice. JD's Family Auto provides the car trailer required to remove and transport many of our larger items. The Seacoast Seafood team provided flat top trucks to pick up and remove concrete pontoons, with the MacMasters Beach Surf Club and Avoca Aqua-muse providing canoes for our coastal lagoon operation. Many thanks to all those organisations.

"Cheeki" donated stainless steel water bottles to Clean4shore and another local business "Elite Smash Repairs" providing the paint work on the barge, which is very impressive out on the water.

The adult volunteers groups including The Glen, Department of Juvenile Justice, Dimension Data, ING Direct and MacMasters Beach Surf Club assist in tackling the "tough" tasks that often occurred during field trips. This attendance may be generated through the Corporate Landcare program, corporate "environment incentive day", work experience or community integration which is greatly appreciated.

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. In kind support from young James Crowther who updates our Instagram photos.

Clean4shore must also acknowledge our small administration team of Jan Sillato, Sallie-Ann Macklin and Helen Hayden for their in kind contribution towards the management of the Clean4shore program. The biggest "thank you" of all must go to all of the students and volunteers that enable this unique program to be successful.



Financial Support

Australian Federal Government

Central Coast Council

Greater Sydney Local Land Services

Hornsby Shire Council

Corporate Landcare

Landcare Australia

LOGISTICAL SUPPORT

Simon Funnell (barge operator)

Rob Moxham (barge operations)

Tangaroa Blue (statistics/data)

Brisbane Waters National Park

Clean4shores Admin: Sallie-Ann Macklin,

Helen Hayden, Jan Sillato, James

Crowther

Aqua-muse Avoca Beach

Local & ABC Radio

NSW Maritime & Fisheries

Kuringah & Lane Cove Parks & Wildlife

Floating Landcare

Intrepid Landcare

Take 3

Hunter Local Land Services

Ash Island Landcare

Irukandji Shark & Ray Encounters

Volunteer Contribution

Brisbane Waters Secondary College

Terrigal High School

Kincumber High School

St Joseph's College East Gosford

Volunteer Contribution Continued

St Edwards Christian Brothers College

Erina High School

Narara Valley High School

Green Point Community College

Central Coast Grammar College

The Steiner School Tuggerah

St Peters Catholic College Tuggerah

The Entrance High School

Chris O'Riley's Youth off the Streets

Budgewoi High School

Cherrybrook Technology High School

Rouse Hill Anglican College

Loretto Girls College

Asquith Boys High

Asquith Girls High

The Glen Aboriginal Men's Health Clinic

Department of Justice Frank Baxter Centre

MacMasters Beach Surf Club

Gosford Girl Guides

Bouddi Bushcare

Dimension Data

ING Direct

Intrepid Landcare

Wamberal RFS, Community & Bushcare

Take 3

Ash Island Community Volunteers

Cempedak Island Staff & Guests

Tillgerry Bushcare & Supporters



Executive Summary

The Federal Government's IYLP&E Grant provides flexibility to address larger tasks within our grant boundaries. National Parks and Fisheries identified old oyster infrastructure and tar covered trays in Berowra Creek on the Hawkesbury River and Cockle Bay in Brisbane Waters. Clean4shore removed this bulk oyster product early in the year together with the further removal of concrete covered polystyrene pontoons and derelict or sunken vessels. Many more of these pontoons and vessels still remain, especially in the Hawkesbury and Brisbane Waters .

The school interest again expanded with St Joseph's Girls College, Steiner School Tuggerah, Budgewoi High, Loretto Girls High, St Peters Tuggerah, The Entrance High, and Green Point Christian College joining the program for the first time. Successful student participation continued from Support Units and Behaviour Management Units all on Clean4shore "can do" field trips.

Statistics suggest that the volume of litter collected has decreased, especially the products that are now covered by the "Return and Earn Scheme" established by the State Government as an anti-littering strategy. Soft and hard plastics items are still being recovered from the foreshores in alarming numbers which contributes to the increase in micro plastic within our waterways. Litter filtration of our storm water drains, especially on Brisbane Waters and Tuggerah Lakes needs be addressed by Central Coast Council to prevent these plastic from entering local waterways.



Students compiling statistics – Avoca.



Emma McBride and local girl guides

The Federal Election generated interest from political parties seeking support from not for profit organisations such as Clean4shore. Our proven community engagement record and documentation procedures together with our State and National Landcare Awards had both sides of Government lobbying to assist with continued funding proposals. Local Federal Member for Robertson, Lucy Wicks lobbied the Government successfully to continue the funding of the Clean4shore program past 2020. In an election year the three Federal Members of Parliament covering Clean4shores boundaries supported small grant applications from the Stronger Communities Program. Many thanks to Julian Leeser, Lucy Wicks and Emma McBride.

Clean4shore purchased the barge from partnering subcontractor Simon Funnell due to compliance and trailer issues. National Maritime requirement now included floatation in all commercial craft. Aluminium foam filled bench seating was installed in the barge, plus a new aluminium dual axel trailer to transport the barge to our many field trip sites. Elite Smash Repairs donated the bright paintwork with Clean4shore providing lettering on both sides of the barge improving the visual



appearance whilst advertising our program both on and off the water. Federal Member for Dobell Emma McBride assisted with this purchase and modifications though a small equipment grant.

Landcare Australia contacted Clean4shore with a grant enquiry to expand and establish the litter collection program to other similar waterway. Clean4shore completed the grant application and began seeking expressions of interests for a possible commencement in 2020. The interest generated by Clean4shore had sound inquiries from Lane Cove, Hunter River, Parramatta Rivers and Port Stephens with Clean4shore following up this interest through surveys and field trips.

Landcare group, Friends of the Schoolmasters House Inc on the Hunter River received a funding grant and engaged Clean4shore on two litter collection field trips. This wetland region close to Newcastle is very "user friendly" for volunteer participation with very large volumes of litter collected. Local stakeholders are encouraged to seek continued funding for more field trips and promotional forums due to the large volume of litter still present. Lane Cove River is currently self-managed however Port Stephens has the litter issues and personnel to commence a Clean4shore style program pending funding.

Central Coast Council expanded the program outside of the designated Robertson Grant boundaries and engaged Clean4shore to survey Crown and National Parks land and foreshores close to Gwandalan. National Parks Rangers accompanied Clean4shore revealing extensive illegal dumping in the reserve and "squatter' style campsites on the picturesque foreshores of the adjoining Crangan Bay. Volunteers from "The Glen" assisted Council and Parks staff to remove two large truck loads of rubbish, yet much more is still present. The Crangan Bay foreshore clean-up was completed by local high schools plus The Glen and was well received by Gwandalan residents as demonstrated by positive social media posts.

The IYLP&E grant required monitoring and litter removal from the Central Coastal Lagoons situated at Wamberal, Terrigal, Avoca and MacMasters Beach. The clean-up engaged local schools and organisation, using canoes to transport volunteers and remove litter. The Eastern foreshores of Wamberal Lagoon was most concerning with storm water runoff from a larger residential and road area - contributing to the volume. Local residents are monitoring these lagoons to preserve native habitat.

The absence of major storms and flooding rain during 2019 allowed Clean4Shore to greatly reduce the visible and unseen litter in the foreshore and mangroves. The State drought during 2019 presented issues with school attendance during extreme bushfire danger periods, with Simon's skills and knowledge on this

topic implemented on smokey days.

An overall pleasing result during 2019 with funding and our volunteer base secured. Stakeholder compliance and support is strong with the program now well established and ready for the challenges that 2020 will present!



Edwina and Ellen – Happy Result!



Background

Clean4shore is a small not for profit community based organization located at MacMasters Beach on the Central Coast of NSW. The program utilises schools, youth, disability, community and corporate groups to clean litter and general rubbish along the foreshores of the Hawkesbury River, Brisbane Waters, Tuggerah Lakes System and more recently Lower Lake Macquarie and the Hunter River.

The clean-ups commenced during a MacMasters Beach Surf Club Duke of Edinburgh's Award kayaking expedition of the Hawkesbury River in 2010. Large volumes of litter were collected on this trip with the Surf Club returning as a social activity for members to address the litter issue. This program quickly expanded to engage school and community organisations, moving into the adjoining waterways of Brisbane Waters and Tuggerah Lakes.

The program utilised surf rescue vessels (IRB's) from the MacMasters Beach Club to transport volunteers and collected rubbish. Great fun and excitement for the young volunteers but hardly the craft for litter collection especially oyster product! Large oyster barges replaced the IRB's in 2014 allowing greater volumes of litter to be collected and improved risk management procedures and guidelines.

The program is reliant on grant funding to engage our community groups, employ subcontracting vessels and transport and dispose of all collected litter. 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 the estuarine and the marine environment. The volunteers receive an educational challenge and adventure whilst contributing to the global issue of litter in our waterways.







IRB's and Oysters Brisbane Waters 2013



Awards and Recognition

Clean4shore is about "getting the job done" and it is important to recognise our grant provider's contribution through attendance at conferences and award presentations. Recognition and awards provides support for future grant applications together with the opportunity of networking other organisations.

Clean4shore travelled to Broken Hill in the peak of the drought attending the NSW Landcare Conference and Awards being nominated as a finalist and 'runner up' to eventual winner and litter crusader, Take 3 also based on the Central Coast. Other local organisation involved with Clean4shore including Bouddi Bushcare and Floating Landcare received recognition at the Landcare Awards. (photo right with Amanda Marechal Take 3).



Left Photo: Warren Brown, Jono and Amy McIntosh



Right Photo: 'Jono' with Amanda Marechal of Take 3

Central Coast Council hosted the NSW Coast Care Conference and Coastal Management Awards staged at Terrigal Crown Plaza. The Clean4shore program figured prominently winning the State Coast Care Award and Clean4shore winning the "Local Hero" Award.

Supporters - Cheeki

Keeping our volunteers hydrated whilst on the water is important to meet our risk management with the old plastic water bottles, not quite up to standard. "Cheeki" came on board donating Clean4Shore stainless steel water bottles, a much more appropriate and healthy option. Thanks Cheeki.



Bill and his family at Cottage Point



Supporters – JD's Family Auto

The heavier loads often get to the tip on the large car trailer supplied "in kind" by JD's Family Auto at MacMasters Beach. Rob Moxhams crane assists with the loading on the Hawkesbury yet this can be much more difficult elsewhere where craft and heavier items are floated or push onto the trailer often submerged in salt water. The unloading is also tricky as winching, acceleration and gravity generally succeeds. Many thanks James.

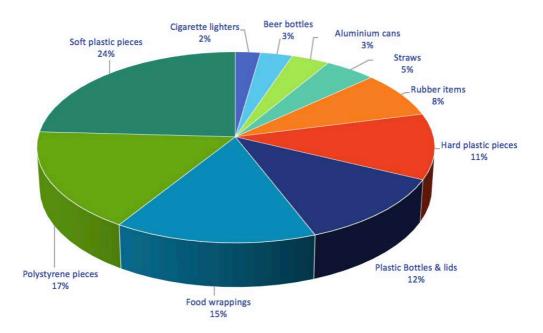


How much can you get on the JD trailer!

Statistics

Clean4Shore statistics are generated at the end of each field trip from average sampled bags. All larger items are carefully documented. The weight of collected litter is from individual weighbridge receipt generated from Woy Woy Landfill. All statistics are forwarded to Tangaroa Blue and the Australia Marine Data Institute. A full summary of litter statistics is included at the end of this report document. Below is a summary of the "Top Ten".

Items Top Ten Items Collected 2019					
Soft plastic pieces	21,114	Rubber items (balls, thongs, pieces)	6,872		
Polystyrene pieces	14,764	Straws	4,009		
Food wrappings	12,998	Aluminium cans	2,998		
Plastic Bottles & lids	10,461	Beer bottles	2,528		
Hard plastic pieces	9,747	Cigarette lighters	1,969		
Total					





Case Study Tascott Straight (Brisbane Waters)

Tascott Straight is the Western foreshore of Brisbane Waters and has a narrow storm water drain between Brisbane Waters Drive and the main rail line. This drain collects storm water and litter from the neighbouring residential houses plus storm and tidal water from Brisbane Waters. Large drains flow underneath the rail line and road delivering this storm water unfiltered into Brisbane waters. Wind, tides and storms also push floating litter back through this drain from Brisbane Waters where the mangroves filter and retain the litter. The roadway (Brisbane Waters Drive) consistently contains high volumes of traffic with illegal littering occurring from passing traffic. Evidence of motor vehicles accident exists as car parts especially plastic bumper bars were found in the drain. Cigarette butts also present closer to the roadway.

Collection of this litter was difficult, due to the narrow often steep terrain of the drain, but mainly the safety aspect involved with collecting litter close to and carrying full bags across the busy road. Clean4shore completed three field trips utilising small experienced volunteers removing sixty two bags of litter from the 600 metre section of this drain. The vast volume of litter contained in this drain especially plastic and polystyrene was staggering, indeed resembling those shown of Indonesian photos further in this report. Unlike Indonesia this litter is preventable, especially from entering Brisbane Waters, with filtration required on the large pipes that transfer the storm water into the larger waterway. Anti-littering signage and compliance will reduce the volume thrown from vehicles, with the "return and earn" initiative from the State Government also assisting. Central Coast Councils management of the one metre grass section bordering the road is well maintained with planned mowing, however this mowing cuts up the litter especially plastics and polystyrene into smaller pieces. An alternative method is needed.

The mangroves within this drain naturally filter the litter, however without the removal of the plastics on a regular basis this drain will become a major source for the production of tonnes of micro plastic that will enter our waterway. It is unacceptable that 11,350 items (plus) of litter should be contained in stormwater mangroves only 600 metres long. The table below highlights the top seven items of litter collected shown in the data statistics provided from the three field trips.

Field	Full	Weight	Soft	Hard	Plastic	Food	Polystyrene	Aluminium	Beer
Trips	Bags	Kilos	Plastic	Plastic	Bottles	Wrapping	Pieces	Cans	Bottles
1	32	320	1384	386	1495	840	1623	341	43
2	7	60	426	112	45	348	327	29	12
3	23	160	1495	148	322	476	736	184	138
Total	62	540	3,305	646	1862	1664	2686	454	193
Tascott Straight Total Items Collected					11,350				



Case Study Tascott Straight



Polystyrene pieces on the higher tidal marks



Thinking "Where to start" Ryan's



Jim & Ryan with 23 bags collected



Dave in the tidal water of Tascott drain



Graeme "more bags coming"



32 bags on board the trailer ready for the tip



Clean4Shore Project Summary 2019

Field Trip Location	Completed Field Trips	Collected Items	Total Weight	Volunteer Numbers	Volunteer Hours
Brisbane Waters	51	90,418	27.036	280	850
Hawkesbury River	35	15,809	30.420	250	810
Lower Lake Macquarie	6	Statistics in	Statistics included in		94
Tuggerah Lakes	11	Brisbane W	aters	43	189
Coastal Lagoons	5			56	203
Hunter River / Ash Island	3	5,080	1.580	10	27
Nelsons Bay	3	0 0		37	60
Lane Cove River	2		.10	2	6
Total	116	111,307	59.066	710	2,239

Comparison from Project Summary 2018

Field Trip Location	Completed Field Trips	Collected Items	Total Weight	Volunteer Numbers	Volunteer Hours
Brisbane Waters	77	107,336	27.900	414	1460
Hawkesbury River	31	26,292	33.900	180	617
Tuggerah lakes	6	3,658	.800	6	24
Total	114	137,286	62.600	600	2,101

Comparison from Project Summary 2017

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Field Trip Location	Completed	Collected	Total	Volunteer	Volunteer
	Field Trips	Items	Weight	Numbers	Hours
Brisbane Waters	36	86,065	13.265	239	883
Hawkesbury River	4	20,568	43.640	185	720
Total	76	106,636	56,905	424	1,603

Clean4Shore Total Summary from 2014-2019

Clean4shore Statistics Year	Completed Field Trips	Collected Items	Total Weight	Volunteer Numbers	Volunteer Hours
2014	81	131,631	71.4	691	2847
2015	39	193,243	34.9	465	1774
2016	67	182,636	52.2	554	2160
2017	76	106,636	56.9	424	1,603
2018	114	137,286	62.6	600	2,101
2019	116	111,307	59.0	710	2,239
Total	493	862,739	337.0	3,444	12,724

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BRISBANE WATERS SUMMARY



An immediate start to the Brisbane Waters program was possible as Clean4shore entered the second year of the Federal Governments IYLPE Grant, and with the schools on holidays, surveys again commenced to enable planning for the year. Pontoons and derelict marine craft were removed from the foreshores of the Great Aussie Bush Camp on Kincumber Broadwater.

Compliance issues at the old oyster depot at Empire Bay bordering Cockle Bay were finally resolved with Simon and Clean4shore assisting National Parks to remove old oyster trays and infrastructure. A total of 4.740 tonne was removed from this site with National Parks removing the old cottage providing an improved visual appearance for the local community.



	Brisbane Wa	aters Field Trips	s 2019		
Date	Group	Site	Weight	Volunteers	Total
	эгэлр		Tonne		hours
11/01/19	Clean4shore	Great Aussie Bush Camp	.160	1	1
14/01/19	Clean4shore	Great Aussie Bush Camp	.840	2	3
15/01/19	Clean4shore	Davistown Channel	.240	2	3
14/02/19	Clean4shore / Simon	Cockle Bay	2.580	Nil	Nil
18/02/19	Clean4shore	Cockle Bay	1.920	Nil	Nil
19/02/19	Clean4shore	Cockle Bay	.840	Nil	Nil
20/02/19	Clean4shore	Cockle Bay	.280	Nil	Nil
21/01/19	Clean4shore / Simon	Lynton Channel Boat	.900	0	0
05/03/16	Narara Valley High	Narara Creek	.400	15	62
08/03/19	BWSC / Support Unit	Cockle Bay	.540	6	26
09/03/19	Intrepid Landcare	Kariong / Woy Road	.240	26	78
15/03/19	BWSC / Bushcraft	Rileys/Pelican	.400	13	39
18/03/19	Clean4shore / Wicks/BWSC	Narara Tent Site	.60	1	3
26/03/19	Terrigal High	Erina Creek	.180	8	34
27/03/19	Floating Landcare BWSC	Riley' Island	.180	4	16
08/04/19	Narara Valley High	Fagan's Bay	.520	8	24
16/04/19	Narara Valley High	Fagan's Bay	.120	8	24
23/04/19	Clean4shore Survey	Woy Woy Bay	.60	0	0
24/04/19	Clean4shore Survey	Erina Creek	.120	0	0
09/05/19	St Edwards College	Yattalunga Green Point	.300	12	36
10/05/19	Clean4shore Survey	Tascott			
13/05/19	St Joseph's College	Erina Creek	.320	12	36
15/05/19	BWSC Work Experience	Tascott Straight	.160	2	6
23/05/19	Clean4shore Survey	Avoca Lake			
29/05/19	Clean4shore Survey	Tascott Straight	.20		
30/05/19	Clean4shore	Tascott Straight	.20		
01/06/19	Community	Tascott Straight	.320	2	6
01/06/19	Community Illegal Dump	Maitland Bay Drive	.500	1	3
13/06/19	Kincumber High	Kincumber Broadwater	.340	8	32
18/06/19	Narara Valley High	Fagan's Bay	.520	15	60
19/06/19	Floating Landcare	Bensville Mangrove	.280	1	4
04/07/19	Clean4shore	Rileys Bay Fagans Bay		1	4
07/08/19	Clean4shore Council Survey	Erina Wetlands	.240		
26/08/19	Terrigal High School	Pelican Island	.240	10	
12/09/19	Clean4shore Community	Empire Bay Survey	Nil	Nil	
13/09/19	Clean4shore / Simon	Pelican Island Boat	.560	Nil	Nil
23/09/19	Clean4shore Survey	Erina Creek & Erina Bay			
11/09/19	Clean4shore Council Survey	Kincumber Empire Bay			
16/10/19	Erina High School	Erina Bay	.380	12	36
17/10/19	Clean4shore Survey	Avoca Lake			
18/10/19	Clean4shore Council	Avoca Lake Inspection			
31/10/19	St Edwards College	Caroline Bay Erina Bay	.120	12	36
4/11/19	St Josephs College	Erina Creek Erina Bay	.320	12	36
06/11/19	Floating Landcare	Rileys Island Weeds		12	



52 Fie	ld Trips Complet	19.896	280	850	
30/12/19	30/12/19 MacMasters Surf Club Kincumber Broadwater		1.420	4	12
24/12/19	Macmasters Surf Club	Woy Woy Bay Boat	1.460	2	6
16/12/19	Kincumber High	Kincumber Broadwater	.500	15	45
12/12/19	BWSC Support	Rileys Pelican Island	.200	8	24
28/11/19	Green Point Christian School	Kincumber Empire Bay	.200	7	25
26/11/19	Narara Valley High	Narara Creek	.360	13	52
22/11/19	Kincumber High	Kincumber Broadwater	.600	15	45
08/11/19	BWSC Support Unit	Pelican Island	.320	11	33

Clean4shore attended an Intrepid Landcare forum, targeting youth leadership through Landcare Australia, assuring the group of support for local field trips combining revegetation and litter removal. The forum participants then completed a short litter removal task from the Kariong to Woy Woy Road, revealing alarming volumes of roadside litter. Intrepid Landcare is a key focus group for Clean4shore in 2020.

The school program commenced early in term one with local students and teacher's eager to get back into the clean-up task on their local waterways. Support Unit students from Narara Valley, Kincumber and Brisbane Waters High schools successfully adapted to the challenge and 'can do' approach that Clean4shore promotes. Removing litter is the primary task however skills in leadership, communications, eco and estuary knowledge, problem solving, community pride and team building is successfully generated on these field trips. Quietly observing Simon mentoring students on simple 'life skills' is inspiring and a highly valuable part of the program. Many thanks to St Joseph's and Green Point Christian College for joining the program during 2019.

The Brisbane Waters estuaries of Narara Creek, and adjoining Fagan's Bay together with Erina and Kincumber Creek generate bulk small and industrial litter mainly plastics and polystyrene. Poor litter storage at industrial sites plus roadside litter that flows through the many open drains into these Creeks contributes to this alarming volume of litter. Council intervention and improved Catchment Management Policies are required to prevent the mangroves within these Creeks becoming a haven for the production of bulk micro plastics.

Oyster product is always a constant issue in Brisbane Waters with derelict and abandoned leases having plastic trays and baskets washed off the lease's and onto the foreshores and mangroves. Rarely do trips on Brisbane Waters return without oyster product. Report photos of students carrying oyster product from the foreshores and mangroves in Brisbane Waters draws a large community response, positive for the students and negative towards the local oyster industry. Crab traps are illegal in Brisbane Waters, and are collected on a regular basis especially in Narara and Erina Creek with compliance continually advised on the location and removal numbers of these traps.

Car tyres illegally dumped in the water pose an issue, they are heavy and mostly covered in mud and oyster shells. Central Coast Council Landfill allows our car dirty tyres to be shredded, prior to recycling with truck tyres transported to St Marys 'for shredding in accordance with EPA regulations. Council Landfill are also compliant and accept the derelict vessels that we haul out of Brisbane Waters. Soft and hard plastics plus food wrapping now dominate most field trips with statistics suggesting that with no



compliance or filtration on our drains these figures will remain. Roadside illegal dumping on is also addressed by Clean4shore when requested by Central Coast Council or National Parks.

The Floating Landcare program was again partially subsidized by Clean4shore in Brisbane Waters with students from Brisbane Waters Secondary College joining the local Boudi Bushcare group on this venture on Pelican and Riley's Island.

Clean4shore successfully received a Stronger Communities Grant, supported by our local Federal Member Lucy Wicks, which encourages our students to commence small scale bush regeneration projects under the guidance of stakeholders and local Bushcare volunteers on Brisbane Waters. Central Coast Grammar College undertook the first planned Bushcare event on Avoca Lake, addressing the asparagus fern on the small Island within Avoca Lake. This field trip was diverted to foreshore litter due to the dangerous bushfire conditions that closed Crown land. Another positive program for 2020. The volume and weight of litter collected from Brisbane Waters has greatly reduced, more noticeably was the absence of "fresh" bar coded bottles and cans a direct result of the State Government's successful "return and earn" scheme.

The effects of the drought and absence of major flooding and storms has Brisbane Waters presenting in a "manageable" position, thanks mainly to the hard work of our volunteers and improved community awareness towards marine and general litter. Many thanks must also be passed on to our barge coordinator Simon Funnell for his maritime and mentoring skill, compliance and WH&S knowledge and application, and the positive dynamics that he brings to each participating group.



Smokey Days

Kincumber High School



St Edward's College



Groups



Narara Valley High



St Joseph's Girls College



St Edwards College



Kincumber High School



St Joseph's Girls College



Brisbane Waters Secondary College





Erina High School



Green Point Christian College



BWSC Bushcraft



Terrigal High School



Floating Landcare and BWSC students



Cool Shots





Cool Shots



















Issues of Concern

Oyster Product: Clean4shore removed 2,782 pieces of oyster equipment from Brisbane Waters in 2019. This is a consistent figure over the past eight years of our operations in Brisbane Waters and reflects poorly on the local industry and governing Stakeholders. Intervention is limited due to the scale and funding required to repair and or dismantle old leases and the uncertain future of this industry.

NSW Fisheries provided contractors with grant funding for the removal of old leases in Lynton Channel and Pelican Island, a pleasing result for a consistent source of foreshore litter. The sudden emergence of bulk trays in Kincumber Broadwater towards the end of 2019 is a concerning issue.











Big Loads











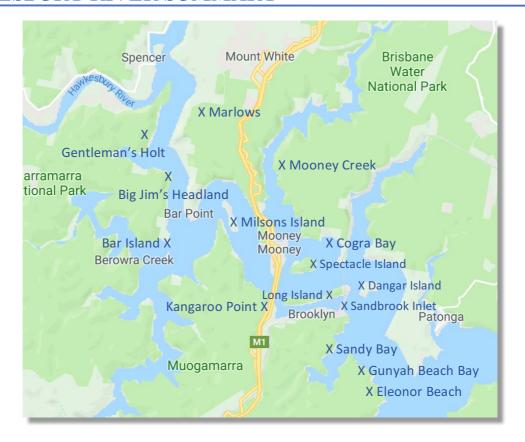








HAWKESBURY RIVER SUMMARY



The efforts of the previous year's volunteer based field trips has this river and its tributaries presenting in excellent condition to start the year. The Federal Governments IYLP&E grant enabled Clean4shore to immediately commence the task of removing larger items from the foreshores including the floating pontoons and derelict vessels previously surveyed. Many thanks to Bill and a small crew from MacMasters Beach Surf Club for assistance on some of these difficult tasks.

A total of nine pontoons weighing 18.4 tonne of floating concrete, filled with partially exposed polystyrene was removed from the water. Many more still remain in poor condition and attract very little compliance concerns from Governing Stakeholders.

The practice of simply dumping an old or abandoned vessel into the mangroves is still a common practice on the Hawkesbury River, again with little compliance action. Nine vessels were removed by clean4shore.

High traffic waterways especially Sandbrook Inlet consistently have large amounts of boating parts and boating accessories washed onto the foreshores of Long Island within Sandbrook Inlet. The level of boating material washed onto this foreshore has not decreased in the past nine years of Clean4shore operations suggesting a need for compliance action within Sandbrook Inlet.

Greater Sydney Local Land Services and Hornsby Shire Council also provided grant support for the Hawkesbury River program. These stakeholders provided content expert staff who attended individual field trips together with the delivery of educational outcomes to the participating students on catchment management policy and landcare management. Many thanks to David Bolton, Ana Rubio and Rebecca Mooy for their positive input into the clean4shore school based field trips.



Corporate group Dimension Data again provided volunteers on the Hawkesbury addressing some of larger items previously identified and venturing further upstream and contributing financially toward Clean4shore's expenditure.

The local Girl Guides reported a large dumping site in Berowra Creek, and backed up this report by attending a field trip to remove boating parts, household items and general rubbish. Protocols were established within the Guide and Scout management to approve further Clean4shore field trips. Priding themselves on "challenge and adventure" these young ladies thrived on the Clean4shore experience. Many thanks to Janice for supporting our program with the prospect of further expansion in 2020.

Low tidal mud in the Hawkesbury River can be a huge challenge for the volunteers and our PPE gear. Rain late in the year had many of our groups returning to Rocky Ponds (Tanks) for a cool swim and a chance to clean up. Great spot. The Frank Baxter Justice Centre and The Glen again utilised Clean4shore as a community service and integration program. Tough tasks were generally assigned to these volunteers who generated team and communication skills on difficult task. Hawkesbury River field trips also allowed for "reflection time" on cultural awareness and poor lifestyle choices whilst in the pristine environment that this river enhances.

The Hawkesbury River project relies on Rob Moxham's team and equipment based at Mooney Mooney. Barge transport for volunteers, crane removal of litter and heavier items plus tip truck delivery to Woy Woy tip is vital for our operations. The safe transport and operation of our program is constantly under scrutiny as we comply to strict risk management policies, especially for the students. Mentoring, local knowledge, marine navigation and a dynamic proactive working environment ensures our often difficult task is completed with plenty of fun, smiling faces in an educational environment. Thanks Rob, Mitchell, Lee and Brett for your assistance, and how good are the lunches.

The effects of the drought, community awareness plus Hornsby Shire's litter filtration commitment and our efforts has contributed to the Hawkesbury River presenting with a greater reduced volume of small litter items as statistical figures show 15, 655 items removed (26,292 in 2018)

The State Governments "Return and Earn" scheme dramatically reduced the amount of fresh bottles and cans entering the waterway from roadside littering. The bushfires later in the year reduced our field trip location capacity and the pontoons and derelict vessels are still an issue, yet overall a very pleasing result achieved in the Hawkesbury River in 2019.



Many thanks Joe for your efforts . in promoting the Clean4Shore program



Date	Group	Site	Weight Tonne	Volunteers	Total hours
04/01/19	Clean4shore/Macs SLSC	Bar Island / Milson Passage	.180	4	12
07/01/19	Clean4shore/Macs SLSC	Bar Island / Mangroves	4.140	4	12
06/03/19	The Glen	Berowra/oyster Tray	1.200	10	35
11/03/19	Clean4shore Survey	Lion Island		2	17
12/03/19	St Peters College	Bar Point / Milsons Island	440	14	35
19/03/19	Kincumber High	Mooney Creek	40	8	32
01/04/19	Cherrybrook High	Sandbrook Inlet	480	9	27
06/04/19	Youth off the Streets	Cowan Little Wobby	NIL	6	24
09/04/19	Clean4shore	Spectacle House Boat	300	0	0
13/04/16	Clean4shore	Spectacle House Boat	1.440	4	8
26/04/19	Gosford Girl Guides & Macs	Berowra Waters	320	14	56
16/05/19	Cherrybrook High	Berowra Creek	340	14	54
03/06/19	Macmasters Beach C4S	Berowra Creek Boat	480	1	4
01/07/19	Clean4shore Macs SLSC	Cowan Creek	80	4	12
18/07/19	Frank Baxter Juvenile Justice	Hawkesbury Cogra bay	380	3	12
14/08/19	Asquith Girls	Sandbrook Channel	260	12	36
19/08/19	Clean4shore Survey	Fishermans Point	Nil	Nil	Nil
22/08/19	The Glen	Fishermans Point	9.860	10	30
03/09/19	Dimension Data	Hawkesbury	220	12	36
04/09/19	Dimension Data	Hawkesbury	280	11	33
05/09/19	Dimension Data	Hawkesbury	480	10	30
14/09/19	Clean4shore Survey	Sandbrook Inet	Nil	Nil	
01/10/19	Clean4shore / Moxhams	Sandbrook Triamaran	980	0	
09/10/19	Gosford Girl Guides	Little Wobby	760	10	40
22/10/19	Lorreto College	Long Island	380	13	52
25/10/19	Cherrybrook High	Long Island Spectacle	440	14	52
26/10/19	Clean4shore Community	Hawkesbury Mooney	780	1	4
28/10/19	Clean4shore / Moxham	Cogra Bay Pontoon	2.200		
02/11/19	Clean4shore / Moxham	Dangar / Cogra boats	640		
03/11/19	Clean4shore	Cogra Pontoons	2.380		
07/11/19	Asquith Boys	Milsons Passage	160	12	36
16/11/19	Clean4shore / Moxham	Mooney Boat	1.780	1	3
02/12/19	Rouse Hill Anglican	Hawkesbury	340	11	34
03/12/19	Rouse Hill Anglican	Hawkesbury	640	11	34
04/12/19	Clean4shore Disposal	Hawkesbury The Glen		25	50
5 Total F	ield Trips		30.42	250	810



The Groups



Cherrybrook High



Girl Guides in Berowra Creek



Data Dimension – Up For A Challenge; Group 1



Data Dimension – Up For A Challenge; Group 2



Data Dimension – Up For A Challenge; Group 3



Asquith Boys High



The Groups



Cherrybrook High



Kincumber High



Kincumber High



Juvenile Justice Staff, another boat



Rouse Hill Anglican College



Asquith Girls High



Big Loads (Boats, Pontoon's and more boats!)









Issues of Concern

Derelict vessels continue to "turn up" in the Hawkesbury River, or slowly sink, as this trimaran did in Sandbrook Inlet where many vessel are anchored in very poor condition. Clean4shore's task is not to remove these, however it is very frustrating when students cleaning the foreshore are consistently removing boating marine parts and debris from these vessels.

A larger compliance grant is required for a complete removal of abandoned or derelict craft.







Cool Shots



















Coastal Lagoon Summary

Central C	Central Coast Coastal Lagoons Field trips 2019					
Date	Group	Site	Weight Tonne	Volunteers	Total Hours	
23/05/19	Clean4shore Survey	Wamberal Lagoon				
23/05/19	Clean4shore Survey	Avoca Lake				
15/06/19	Wamberal Community	Wamberal Lagoon	.480	20	60	
17/08/19	Wamberal Community	Wamberal Lake	.240	6	18	
17/10/19	Clean4shore Survey	Avoca Lake				
18/10/19	Clean4shore Council	Avoca Lake Inspection				
10/12/19	Central Coast Grammar	Avoca Lake	.600	30	125	
7 Field Ti	7 Field Trips Coastal Lagoons			56	203	

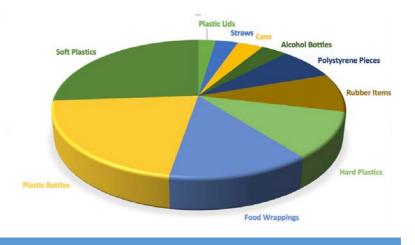
Surveys were completed in Wamberal, Avoca and Cockrone Lagoons on the Central Coast, in accordance with the IYLP&E grant, showing alarming amounts of litter on the Eastern foreshore of Wamberal Lagoon requiring urgent attention.

The low levels of water in this lagoon presented immediate issues with access as the first of our local volunteer groups, mainly the Rural Fire Service struggled through mud to reach the foreshores. Canoes were utilised to transport local volunteers and rubbish back to base with a second trip more successful on higher tidal water. A total of 36 very full bags and plenty of larger items were collected in the two field trips on Wamberal Lagoon. Clean4shore will coordinate further field trips into Wamberal Lagoon engaging bushcare, schools and community groups in 2020.

The Avoca Lagoon survey also revealed litter, however local intervention has greatly reduced the volume of plastics in this waterway. A more concerning issue was the vast amounts of invasive weeds on the small Island within Avoca Lagoon. Central Coast Council together with bushcare volunteers inspected the site and approved intervention by supervised students on the invasive weed issue. Central Coast Grammar attended the first field trip, however extreme bushfire alerts prevented access to the Island. The school completed a foreshore litter clean up removing small litter items plus a large concrete covered pontoon that had floated down from the Hawkesbury River. Further monitoring and bushcare work will commence in 2020. Cochrane Lagoon was free of litter and is self-managed by local residents.

Wamberal Lagoon Top Ten Items (Two field trips)

Plastic Lids	86
Straws	110
Cans	126
Alcohol Bottles	130
Polystyrene Pieces	279
Rubber Items	337
Hard Plastics	399
Food Wrappings	491
Plastic Bottles	789
Soft Plastics	971







Loads of bags removed from the Eastern Foreshore of Wamberal Lagoon.





Wamberal RFS plus locals Wamberal Lagoon



What's a pontoon doing in Avoca Lake?



Central Coast Grammar – Litter collection on Avoca Lagoon



Wamberal Lagoon Tidal mud. (Tough Task for the RFS).



Tuggerah Lakes Summary

Tuggerah Lakes Field Trips 2019									
Date	Group	Site	Weight	Volunteers	Total				
			Tonne		Hours				
28/03/19	Clean4shore Community	Colongra Reserve	.80	2	2				
01/05/19	Clean4shore	Gwandalan & Wallarah	.140	0	0				
03/05/19	Clean4shore Survey	Wallarah							
04/05/19	Girl Guides	Chittaway	.300	2	21				
21/05/19	ING Direct	Chittaway Point	.380	20	80				
22/05/19	Clean4shore Tyres	Chittaway Point	.140						
31/05/19	Clean4shore / Survey	Wallarah Creek							
11/06/19	St Peters Tuggerah	Terilbah Island	.100	8	32				
06/08/19	Clean4shore / Survey	Elizabeth Bay	.220	1	4				
15/11/19	Take 3/Community	Terilbah island	Weights/Stats with Take 3						
20/11/19	The Entrance High	Long Jetty Pelican Is.	.180	10	30				
11 Total Field Trips Tuggerah Lakes			1.540	43	189				

Federal Member for Dobell Emma McBride provided Clean4shore with a small grant that enabled a commencement of the Tuggerah program and the financing of plant and equipment.

Local high schools completed foreshore clean up at the "hot spots" of Pelican and Terilbah Islands at The Entrance. Clean4shore assisted fellow litter crusaders and State Landcare Award Winner "Take 3" in highlighting the litter issue and completing a clean up with local corporate delegates on Terilbah Island. This was a highly successful initiative by Take 3 and delivered successful outcomes for all those attending.

Clean4shore responded to illegal dumping reports in Wallarah Creek, finding bulk shopping trollies under the Pacific Hwy bridge. Clothing and personal goods consistent to homelessness were also found with all collected. Car bodies found further upstream in Wallarah Creek were reported to Central Coast Council for compliance action.

Lake Munmorah foreshore at Elizabeth Bay was surveyed in the little "tinny" with plenty of small litter items visible on the Eastern foreshore to the caravan park. Two discarded campsites were dismantled and stacked in and beside the tinny for a slow removal.

Chittaway Point was inspected by the local Federal Member for Dobell, Emma McBride, as tides and wind deposit floating litter on either side of the peninsular. ING Direct joined Clean4shore through the Corporate Landcare program with the large team of volunteers battling mud and mozzies to remove a barge full of rubbish from Chittaway Point. This area requires consistent monitoring.

Local High schools, community groups and corporates will engage in further litter clean ups within the Tuggerah Lakes system in 2020 following successful Federal Government Grants from joint local Federal Members of Parliament Lucy Wicks and Emma McBride.





St Peters Catholic College at Terilbah island



The Entrance High school on Pelican Island



Huge load by ING Direct, Chittaway Point



Take 3 corporate day at Terilbah Reserve



ING Direct's big load



Cool Shot



Lower Lake Macquarie Summary

Lower Lake Macquarie Field Trips									
Date	Group	Site	Weight	Volunteers	Total				
			Tonne		hours				
12/06/19	The Glen	Gwandalan Dump Site	.520	8	16				
16/06/19	Community Clean4shore	Gwandalan Dump site	.340	1	4				
25/06/19	Narara Work Experience	Gwandalan Dump Site	.640	1	3				
15/08/19	Steiner School Tuggerah	Crangan Bay	1.500	10	35				
29/08/19	Munmorah High	Crangan Bay	.680	8	24				
29/10/19	The Glen	Gwandalan Crangan	.620	4	12				
		Bay							
6 Field Trips Lower Lake Macquarie			4.300	32	94				

Lake Munmorah National Parks staff and Central Coast Council advised Clean4shore of potential illegal dumping and "squatter campsites" on the foreshores of Crangan Bay on the far Southern end of Lake Macquarie.

A successful grant application provided by local Federal Member of Parliament, Emma McBride enabled Clean4shore to commence work at this site. A land based survey of the reserve approaching Gwandalan, confirmed multiple illegal dumping sites and extensive abandoned campsites along the Crangan Bay foreshore.

National Parks, Central Coast Council engaged with The Glen and Clean4shore to remove two large truck loads of illegally dumped materials including white good, building materials, bulk car tyres, car bodies and household items. These items were not included in the Clean4shore statistics.

Clean4shore engaged school students on "work experience" to source the dump sites on the many four wheel drive tracks in this reserve, locating and removing a two full trailer loads of rubbish. This task was suspended when asbestos was found in one of the bulk rubbish piles with Council restricting access pending further compliance action.

Crangan Bay's initial trip by the Steiner School revealed further abandoned camping sites with a huge load on the barge including camping equipment, clothes, car body parts and food items. Car tyres were also removed in high numbers as Munmorah High and The Glen also contributed in this water based clean up close to Gwandalan. The emphasis on personal protection gear especially hard sole booties was required in Crangan Bay due to the "plague" proportions of large "razor shells", unsighted in our other waterways.

Community acceptance of our program was highly evident following the huge response from the locals on the Clean4shore facebook page. This area will be monitored and repeated in 2020.





The Steiner School from Tuggerah. Huge load out of Crangan Bay



Lake Munmorah High at Crangan Bay





Gwandalan Reserve major illegal dumping issues



Ilegal dumping site, lower Lake Macquarie



Indonesian Visit

Clean4shore's annual venture to Indonesia for CPR and First Aid Training on two remote Islands has revealed the extent of litter within many third world countries. Management on these Islands actively engage staff to daily remove floating litter that drifts onto the foreshores. Clean4shore highlighted a rocky headland with staff and guests combining in difficult conditions to remove thirty four bags of litter, mostly polystyrene, plastic bottles and plastic pieces washed ashore.

A visit to a neighbouring Island to demonstrate CPR revealed staggering levels of litter on the foreshores. This level of litter could be consistent for thousands of kilometres of foreshore within Indonesia.

The depressive vision of the litter content and the local village population living in these conditions was well overshadowed by the smiling faces of the children who received recyclable water bottles as a gift from the Resort Island. Great experience, confronting yes, but so was Narara Creek at Gosford when 10,000 plastic bottles were collected in 2016 and Tascott Straight on the Central Coast in 2019.



Proud staff and guests combining on a litter removal program in Indonesia during July 2019



How cool is this, kids in Indonesia





This litter could stretch for thousands of kilometres in Indonesia (left hand photo), looks a bit like Narrara Creek in Gosford 2016 (right hand photograph).



Lane Cove River

Lane Cove River Field Trips 2019					
Date	Group	Site	Weight	Volunteers	Total hours
			Tonne		
08/08/19	Clean4shore Survey Andrew	Lane Cove River	.05	1	3
13/08/19	Clean4shore Survey Andrew	Lane Cove River	.05	1	3
Field Trips/Surveys Lane Cove River		.10	2	6	

National Parks approved a survey of the Lane Cove River from the Epping Road bridge to Kissing Point. Local resident Andrew Dixon accompanied Clean4shore on two separate surveys. Local kayakers and National Park staff monitor this waterway completing clean up's each second month.

Clean4shores first survey from the weir at the National Parks office upstream revealed native vegetation on the foreshore resembling Christmas trees, as small pieces of plastic appear to decorate the branches. The source of this plastic comes from flooding with low lying branches filtering and trapping the plastic. Strange site and a difficult item to remove, cut the branches or not? Removal is also difficult from the unstable sea kayaks with larger craft required for this task. Plenty of small litter was visible, some collected in the sea kayaks.

The lower section of the river is tidal, much wider and as with the upper section, a magnificent urban wilderness to paddle or walk on the foreshore trails. Sighted litter was very minimal and well maintained and monitored by local organisations.

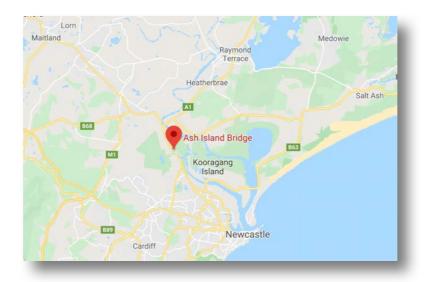




Clean4shore and Andrew Dixon on Lane Cove River, masses of plastic in the trees on the foreshore



Hunter River Newcastle



Hunter River Ash Island Field Trips						
Date	Group	Site	Weight	Volunteers	Total	
			Tonne		hours	
30/10/19	Hunter Local land	Ash Island	survey	1	1	
	Services/Community					
05/11/19	Hunter Local land	Ash Island	.780	5	14	
	Services/Community					
21/11/19	Hunter Local land	Ash Island	.800	4	12	
	Services/Community					
3 Field Tri	ips Hunter River/As	h Island	1.580	10	27	

Landcare group, Friends of the Schoolmaster House Inc contacted Clean4shore offering financial support for three coordinated litter clean ups of the wetlands in and around the "Headmasters Cottage" on Ash Island near Hexham on the Hunter River.

Julia Brougham from the local association together with Alissa Roger, a volunteer coordinator with Local Land Services, accompanied Clean4shore on a survey of the small Island with deep flat mangroves on the banks of the Hunter River.

A volunteer based "walk in" approach was agreed and although advertising was generated on the clean up event only a few dedicated volunteers attended finding masses of small litter items on the tidal marks. Deeper into the mangroves the heavier items, mainly beer bottles were in large numbers together with car and truck tyres. Exhausted volunteers carried the heavy bags out for collection, then into a large skip bin, which quickly filled. The absence of plastic bottles and polystyrene suggests these items have transferred to another site.



For the second field trip Clean4shore transported the barge to Hexham, equipping the volunteers for some mud and more hard work. The foreshores along Maitland Road adjacent to the Hunter River revealed masses of plastic bottles, polystyrene and bulk food packaging mostly consistent from the two large food outlets on the opposite side of the road.

Car body parts were also in large number, from numerous motor vehicle accidents, where dislodged parts are simply discarded into the mangroves. The barge was quickly filled with 22 full bags from the roadside mangroves with only 150 metres cleaned.

Across the river more car tyres and litter saw our volunteers tired from mud and mozzies retreating to fill another large skip bin.

A total of 64 large bags including 28 tyres and many other larger items was removed by a few volunteers during these two field trips, an outstanding effort, but more concerning is the location of the floating items.

Newcastle Council and Hunter Local Land Services are highly recommended to seek further funding to continue this task on Ash Island and further into the Hunter River wetlands. The volunteers that completed these two clean-ups must be commended for their efforts.

Thanks Julia and Alissa for coordinating the field trips with Clean4shore keen to return in 2020











Ash Island - Hunter River Newcastle





Hardy volunteers on the first Ash Island clean-up. The barge was utilised prior to a skip bin off load





34 bags loaded into the barge on the second trip with a full barge bought back to Ash Island



Two large skip bins filled from Ash Island



Clean4shore 'Jono' and Alissa Rogers



Port Stephens Summary

Clean4shore responded to an inquiry from the Tilligerry Bushcare group on vast volumes of litter on the foreshores of Port Stephens, and illegal dumping in the Lemon Tree Passage region. A survey with local bushcare crusader Fran Corner highlighted many sites requiring intervention. Contact was also made with local oyster growers plus Ryan and Lia Pereira from Irukangi Shark and Ray Encounters with the aim of coordinating a group clean up. Ryan and Lia currently conduct litter removal under the Tangaroa Blue program and self-fund their litter program. A second water based survey highlighted visible litter on Bull Island, Big Swan Bay, Tilligerry Creek and Tanilbah Point. Grant funding would need to be secured to enable school, youth and community based volunteer involvement in this project.

Clean4shore completed two forums at local youth organisations to promote the clean up and agreed to fund a trial field trip utilising the current interested parties. The Clean4shore barge was towed to Lemon Tree Passage, however extreme dangerous wind and boating conditions cancelled any form of water or land based litter removal. Following a group meeting a strategy plan included Irukandji to submit a Stronger Communities Grant for planned activities in 2020. Clean4shore met with the Kaye Washington, the local State Member of Parliament and also the Shadow Minister for the Environment, to seek a grant for a local Clean4shore program to commence. This program is currently ongoing.



Illegal litter close to Lemon Tree Passage



Fran Corner at Tilligerry Creek



Port Stephens working group



Suggested survey sites within Port Stephens



Illegal Dumping

The sight of illegal dumping is very disturbing and a poor reflection on the positive steps that the community undertakes in the removal of general household and industrial rubbish. Central Coast Council provide sufficient free household rubbish removal that should prevent these illegal deposits appearing in our National Parks and isolated roads.

Clean4shore has responded to Central Coast Council requests to remove several of these illegal dumping sites, yet have not generally moved on sighted illegal dump sites as it is not within our grant guidelines. Community supporters have forwarded photos of illegal dumping, which Clean4shore then forwards to Central Coast Council for action.

The scope of dumping can be huge and totally out of control, as shown at Gwandalan Reserve and the homeless campsites closer to Gosford. Items found on the foreshores are often dumped as was the case of a whole cool room removed by the Girl Guides on Narara Creek and the 169 tyres removed from the water this year.

Clean4shore will continue to monitor illegal dumping and follow Central Coast Council's recommendations on removal. For our supporters and "spotters", keep sending the photos in.



Empire Bay Illegal Dump Site



Lachlan on work experience



The Glen at Gwandalan Dump Site



Further dumping near Gwandalan Reserve



	Hawkesbury	Brisbane	Hunter	Total
	River	Waters	River	
Collected Items		Tuggerah		
Plastic Items		ruggerun		
72,596				
Cigarette butts & filters	0	330	0	330
Cigarette lighters	331	1,601	37	1,969
Plastic pens, markers & other plastic stationary	168	801	18	987
Plastic straws, cups, plates & cutlery	67`	3,262	76	4,009
Plastic Toothbrushes, combs, hair ties	36	101	2	149
Plastic toys, party poppers, ribbons, clips	459	2,286	82	2,827
Plastic bleach & cleaner bottles	98	339	27	464
Plastic lids & tops, pump spray	541	2,271	106	2,918
Personal care & pharmaceutical packaging	22	128	4	154
Plastic bags supermarket, garbage, complete	37	280	10	327
Plastic containers (oil, sealant, chemical)	10	357	25	490
Plastic drink bottles (water, juice, milk, soft drink)	1,665	86	720	10,461
Plastic packaging food (wrap, packets,)	2,818	11,658	179	12,988
Plastic wrap non food (bubble wrap etc)	64	453	23	538
Strapping band scraps	42	245	25	312
Strapping band whole (record as single item)	7	51	14	72
Plastic bait & tackle bags & packaging	186	726	55	967
Plastic bait containers & lids, bait savers	180	569	28	747
Commercial fishing remnants	0	4	0	4
Cylume glow sticks	0	6	0	6
Fishing line in metres (recreational)	92	262	6	360
Recreational fishing items (lures, floats, rods,)	93	227	18	338
Rope & net scraps less than 1 metre	119	251	16	386
Rope (estimated length in metres)	48	86	8	142
Plastic bits & pieces hard & solid	849	2,736	554	6,349
Plastic soft bits of plastic bag & wrap	2,359	17,557	1198	21,114
Remnants burnt plastic	486	2,774	138	3,398
Polystyrene Items				14,837
Foam Bouys	25	46	0	73
Foam cups , food package & trays	261	1098	63	1,422
Polystyrene insulation/packaging/pieces	1,511	11,496	335	13,342
Other Materials				324
Oil globules and tar balls	0	2	0	2
Sanitary (nappies ect)	3	100	8	111
Shoes leather and fabric	25	155	21	211
Glass & Ceramic Items				6,372
Flurorescent light tubes and bulbs	0	0	0	0
Glass beer bottles	602	1,351	575	2,528
Glass jars	27	26	10	63
Glass or ceramic broken	1,501	1,454	124	3079



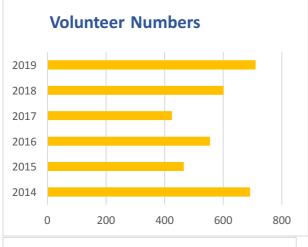
Glass wine spirit bottles	158	514	64	742			
Cloth Items	130	514	04	929			
Binding , string & cord normal	59	208	28	295			
Cloth, clothing, hats towel	97	504	33	634			
Metal Items	31	304	33	3,783			
Aerosol Cans	69	2 011	7	287			
Aluminium cans	255	2,011 2,249	214	2,998			
	20	152	11	183			
Foil wrapping , bladders & alfoil Metal bottle caps	4	24	0	28			
·	33	67	0				
Metal fishing items				100			
Tins (under 4 litres)	23	153	11	187			
Paper Items		0.00		1,314			
Newspaper, magazines & brochures	33	368	15	416			
Paper and cardboard packaging	79	678	15	772			
Telstra packs and drink cartons	6	106	14	126			
Rubber Items				6,872			
Rubber balloons, balls and toys	430	3,433	61	3,924			
Rubber footwear and thongs	167	696	43	905			
Rubber remnants	331	1,624	87	2,043			
Wood Items				318			
Brooms, brushes and paint brushes	23	56	0	79			
Processed timber, pallets and wood	93	145	0	238			
Wood confectionary sticks, pencils, matches	1	0	0	1			
Total Smaller Items	15,226	86,735	5,031	106,992			
Plus Additional Larger & Commercial Items Collected							
Plus Additional Larger & Commercial Items (Collected		,	200,002			
Plus Additional Larger & Commercial Items (Collected Item	Collected Hawkesbury	Brisbane	Hunter	Total			
	Hawkesbury	Brisbane Waters	Hunter				
Collected Item	Hawkesbury	Brisbane Waters Tuggerah	Hunter				
Collected Item Pontoons (concrete covered polystyrene)	Hawkesbury River	Brisbane Waters Tuggerah	Hunter	Total			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets)	Hawkesbury River	Brisbane Waters Tuggerah 3	Hunter	Total 15 1001			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces	Hawkesbury River	Brisbane Waters Tuggerah 3 830 576	Hunter	15 1001 576			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles	Hawkesbury River	Brisbane Waters Tuggerah 3 830 576 912	Hunter	15 1001 576 912			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber	Hawkesbury River	Brisbane Waters Tuggerah 3 830 576 912 264	Hunter	15 1001 576 912 264			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins	Hawkesbury River 12 171	Brisbane Waters Tuggerah 3 830 576 912 264 11	Hunter River	15 1001 576 912 264 15			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres	Hawkesbury River 12 171 4 23	Brisbane Waters Tuggerah 3 830 576 912 264 11 124	Hunter	15 1001 576 912 264 15 175			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres Boats complete fibreglass	Hawkesbury River 12 171	Brisbane Waters Tuggerah 3 830 576 912 264 11 124 11	Hunter River	15 1001 576 912 264 15 175			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres Boats complete fibreglass Boat inflatable rubber	Hawkesbury River 12 171 4 23 7	Brisbane Waters Tuggerah 3 830 576 912 264 11 124 11 2	Hunter River	15 1001 576 912 264 15 175 18			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres Boats complete fibreglass Boat inflatable rubber Boating Parts (marine ply)	12 171 4 23 7 43	Brisbane Waters Tuggerah 3 830 576 912 264 11 124 11 2 26	Hunter River	15 1001 576 912 264 15 175 18 2			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres Boats complete fibreglass Boat inflatable rubber Boating Parts (marine ply) Boating Parts (alloy, fglass, foam seating, glass)	12 171 4 23 7 43 34	Brisbane Waters Tuggerah 3 830 576 912 264 11 124 11 2 266 12	Hunter River	Total 15 1001 576 912 264 15 175 18 2 69 48			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres Boats complete fibreglass Boat inflatable rubber Boating Parts (marine ply) Boating Parts (alloy, fglass, foam seating, glass) Boating Fibreglass (surfboards, canoes, parts)	Hawkesbury River 12 171 4 23 7 43 34 8	Brisbane Waters Tuggerah 3 830 576 912 264 11 124 11 2 266 12 10	Hunter River	15 1001 576 912 264 15 175 18 2 69 48 18			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres Boats complete fibreglass Boat inflatable rubber Boating Parts (marine ply) Boating Parts (alloy, fglass, foam seating, glass) Boating Fibreglass (surfboards, canoes, parts) Boating foam boogie boards, seating, eski	Hawkesbury River 12 171 4 23 7 43 34 8 12	Brisbane Waters Tuggerah 3 830 576 912 264 11 124 11 2 266 12 10 4	Hunter River	15 1001 576 912 264 15 175 18 2 69 48 18			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres Boats complete fibreglass Boat inflatable rubber Boating Parts (marine ply) Boating Parts (alloy, fglass, foam seating, glass) Boating Fibreglass (surfboards, canoes, parts) Boating foam boogie boards, seating, eski Boating "Tinny"	Hawkesbury River 12 171 4 23 7 43 34 8 12 3	Brisbane Waters Tuggerah 3 830 576 912 264 11 124 11 2 266 12 10 4 1	Hunter River	15 1001 576 912 264 15 175 18 2 69 48 18 16 4			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres Boats complete fibreglass Boat inflatable rubber Boating Parts (marine ply) Boating Parts (alloy, fglass, foam seating, glass) Boating Fibreglass (surfboards, canoes, parts) Boating foam boogie boards, seating, eski Boating "Tinny" Metal parts, steel pieces, roofing, trolley, car	Hawkesbury River 12 171 4 23 7 43 34 8 12 3 86	Brisbane Waters Tuggerah 3 830 576 912 264 11 124 11 2 266 12 10 4 1 216	Hunter River	15 1001 576 912 264 15 175 18 2 69 48 18 16 4 310			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres Boats complete fibreglass Boat inflatable rubber Boating Parts (marine ply) Boating Parts (alloy, fglass, foam seating, glass) Boating Fibreglass (surfboards, canoes, parts) Boating foam boogie boards, seating, eski Boating "Tinny" Metal parts, steel pieces, roofing, trolley, car Boating tarpaulin	Hawkesbury River 12 171 4 23 7 43 34 8 12 3 86 2	Brisbane Waters Tuggerah 3 830 576 912 264 11 124 11 2 26 10 4 1 216 7	Hunter River	15 1001 576 912 264 15 175 18 2 69 48 18 16 4 310			
Collected Item Pontoons (concrete covered polystyrene) Oyster product (trays, baskets) Oyster plastic mesh pieces Oyster tar covered hardwood poles Oyster floatation rubber Nylon oyster shade cloth and tarpaulins Car / Truck Tyres Boats complete fibreglass Boat inflatable rubber Boating Parts (marine ply) Boating Parts (alloy, fglass, foam seating, glass) Boating Fibreglass (surfboards, canoes, parts) Boating foam boogie boards, seating, eski Boating "Tinny" Metal parts, steel pieces, roofing, trolley, car	Hawkesbury River 12 171 4 23 7 43 34 8 12 3 86	Brisbane Waters Tuggerah 3 830 576 912 264 11 124 11 2 266 12 10 4 1 216	Hunter River	Total 15 1001 576 912 264 15 175 18 2 69 48 18 16 4 310			

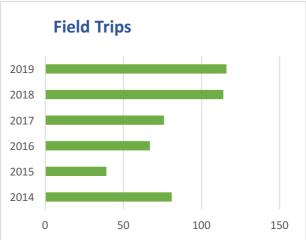
Metal maritime signage (large)

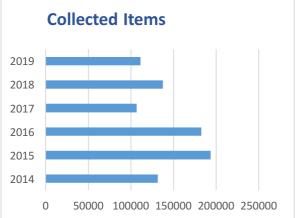
Metal Crab traps

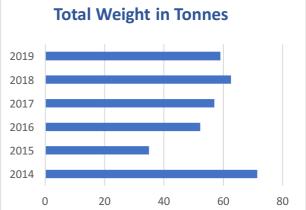


Metal nuts and bolts (Cockle Bay)		343		343
Plastic buckets, pipe, drums, milk crates, chairs	26	229	4	259
Plastic sheeting	6	5	1	12
Plastic sailing marine craft	3	7		10
Foam mattress, lounges, chairs, cushions	8	27		35
Polystyrene large food boxes	12	14		26
Outdoor furniture timber	10	15		25
Marine batteries	2			2
Asbestos pieces (separated compliance)	65			65
Timber signage/ building material	4	24		28
Timber vessel complete		1		1
Outdoor camping	3	20		23
Power tools	3			3
Aluminium parts cladding, boat mast	6	1		7
Video	11			11
Carpet pieces		13		13
Larger Items Total	583	3,683	49	4315
Plus Smaller Items Collected	15,226	86,735	5,031	106,992
	15,809	90,418	5,080	111,307
Total Items Collected in 2019				











Moving Forward 2020

Many achievable issues still confront Clean4shore requiring more direct action from governing stakeholders. These include the large concrete polystyrene pontoons that are still appearing in the Hawkesbury River and oyster product in Brisbane Waters which is collected by our students on most field trips. The derelict vessels continue to fall apart or sink with Clean4shore and our volunteers removing the rubbish from these craft or direct action to remove the entire vessel. These three items, pontoons, old oyster product and derelict vessels require a substantial separate grant or a massive change in stakeholder intervention in order to clear our waterways of these products.

Statistics show a major reduction in the volume of collected litter mainly accredited to the "Return and Earn" scheme introduced in July 2018. Community awareness programs and the drought have also slowed the spread of marine litter. Shopping bags have partially replaced the "one use" plastic bags which we are not recovering from the water. Soft and hard plastic now need to be targeted as these items have increased in our drains and waterways. Council intervention is required to install litter filtration storm water traps, following Hornsby Shire's lead on drains leading into waterways.

The current IYLP&E grant concludes in mid 2020 and the Federal Government announcement to continue our funding to the end of 2020 is most pleasing. Clean4shore is truly in a secure position to continue our work on the Central Coast and the posibility of expanding our program to similar waterways. Local Federal Members of Parliament have secured smaller grants allowing participation slightly outside our prior current boundaries which will further expand our school volunteer base.

The expansion that occurred during 2019 requires further promotion through school and community forums to address marine debris especially in the Hunter River, Lake Macquarie and Port Stephens regions. Clean4shore's barge and trailer are very mobile, and able to assist with marine transport for volunteers and collection of litter. Support through small grants endorsed by local Federal Members is essential for these programs to succeed.

Field trips involving students in small scale bushcare and weed management programs will be promoted during 2020. The work experience program with our local bushcare volunteers introduces Landcare to schools and is within the scope and guidelines of Clean4shores current grants.

As all Clean4shore photos indicate our task is more often in very difficult terrain with a heavy reliance on personal protection equipment for our volunteers. Wetsuits, fluro shirts, socks, booties and gloves are washed after each field trip with worn PPE quickly replaced. Our grants allow for this replacement plus the burden on washing and drying machinery.

Pleasing aspect of the 2019 program was the proactive attendance by governing stakeholders on field trip providing valuable educational outcomes for the volunteers together with gathering and viewing compliance issues. It is also a good learning tool for staff entering estuary or marine management. Further involvement with student completing University or TAFE studies is an option well worth pursuing by Clean4shore during 2020.

Clean4shore plant and equipment assets continue to expand. The barge and trailer was a significant investment with ongoing expenditure for service and maintenance now covered in our new grant. The little 'tinny" and mighty 5HP motor does the job for surveys in the narrow creeks, yet needs to be improved for compliance purposes.



The towing of the barge, removal of litter to the tip, survey work that utilises the coordinators private vehicle, places this vehicle under extreme pressure. The massive loads that are transported to the tip in all conditions, plus the volume of wet dirty participant PPE transported back for cleaning see this vehicle subject to salt water damage and major "wear and tear". Clean4shores 2020 grant has allowed for an allowance for Clean4shore to either purchase or lease a vehicle for program usage, a positive move.

Schools and community organisation continue to expand into our program especially following commencement on a new waterway, as was the case with Lower Lake Macquarie when Budgewoi High and the Steiner School became involved. Further school promotion will be needed if grants progress the Hunter River and Port Stephens projects.

Overall 2020 will commence as per the previous year, grant funds available, tasks to be completed and eager students, teachers and community volunteers keen for another challenge to improve our environment and waterways through direct action in the Clean4shore program.

Graham Johnston (Jono)





I was pleased to help secure a Federal Government Grant to support the work of Clean4Shore.

The best part about Clean4Shore's work around Tuggerah Lakes is it's partnerships with schools, sports clubs and volunteers like the Girl Guides.

Not only does Jono and his teams keep our waterways and foreshores pristine, they share their knowledge with local children.

Emma McBride





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





f facebook.com/LucyWicksMP @ lucywicks.com.au