



Caring For Our Bays

Bellarine Catchment Network

Port Phillip Bay Fund / Litter and Waste Reduction Partnerships

Caring For Our Bays: Litter Hotspot Report

Nov 2017– June 2020





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There are hundreds of individual reports associated with the CFOB program, as we send these out to our stakeholders post most activities or event to ensure there is a record and summary of activities and outcomes shared with all. A full CFOB report and a selection of photos associated with this litter summary report can be accessed upon request.





1. Project Management



1.1 Bellarine Catchment Network

The Bellarine Catchment Network (BCN) is a not-for-profit organisation that comprises representatives from key catchment and coastal organisations (both government and non-government) with an integrated catchment management focus. This includes environment groups, 'Friends Of', Land Managers, Landcare and Coastcare. The BCN Committee of Management employs seven officers to implement the network projects throughout the Geelong and Bellarine region. A designated representative from each stakeholder group is appointed to the Committee of Management as an advisory panel, along with an Executive Committee.

Vision

The Bellarine Catchment Network region will work towards healthy, well connected and resilient wetlands, waterways and native vegetation ecosystems; sustainable agricultural and land management practices; and a community which is engaged and involved in protecting and managing the natural environment.

1.2 Project Management

Matthew Crawley – Program Manager

Angeline Poole – Coastal Program Leader

Angie was appointed in August 2018 to manage the Caring For Our Bays (CFOB) program. Since then her role and responsibilities have expanded to Coastal Program Leader and making up part of the BCN management team. Her role focuses on working with government, business and community organisations to work towards a healthier catchment, coastal and marine environment.

1.3 Caring For Our Bays Program

The Caring for our Bays program is supported by the state government through the Port Phillip Bay Fund and also land managers across the Geelong and Bellarine region. CFOB aims to address the increasing threat of plastics and pollution in our oceans, through lifting the profile and appreciation of Corio Bay and Port Phillip Bay through a collaborative focus on preventing litter at its source. CFOB improves infrastructure and signage, engages community and business, delivers litter education and cleanup events and develops educational material. CFOB has successfully developed strong partnerships with land-managers and community groups and is now concentrating on connecting with the local business sector in order for the program to become a vehicle that can drive community and businesses alike towards healthier bays.

A project video was commissioned in 2019 to create a visual tool to capture the essence of CFOB in a short project overview. The video can be seen at the following link:

<https://www.youtube.com/watch?v=1PbfpJzLIAg>

1.4 Traditional Owner Acknowledgement

Bellarine Catchment Network acknowledges the Wadawurrung; Traditional Custodians of the land on which we work and live, and recognise their continuing connection to land, water and community.

1.5 Contact Information

Angeline Poole
Coastal Program Leader
Email: angie@bcn.org.au
Phone: 0478 777 306

Matt Crawley
Program Manager
Email: matt@bcn.org.au
Phone: 0417 231 853



2. Litter Hotspot Sites



2.1 Litter Hotspots Map



2.2 Volunteers

We would like to acknowledge the commitment and passion of our Litter Champion volunteers who dedicate their time to undertaking this important citizen science program. With their data, litter mitigation measures can be identified and put into place to ensure that the work they do has a significant impact. In addition, the robust collection of data since 2017 has helped to shape the new state LitterWatch portal which now provides a central point for data storage and interpretation for all to observe and use. This information informs government and assists in providing the evidence for change. It is due to their unwavering commitment in undertaking litter audits (as regularly as monthly) that this Litter Hotspots Caring For Our Bays program has been able to realise such success and outcomes.





3. Summary Analysis



Summary of Results

NOV 2017 – JUNE 2020

3556
Volunteer hours

50%
of litter was
cigarette
butts

15
Hotspot
sites

Decrease in
litter at **87%**
of hotspot sites

30
Audit
subsites

59
CFOB clean ups
+100's
Site cleans

546
Litter audits



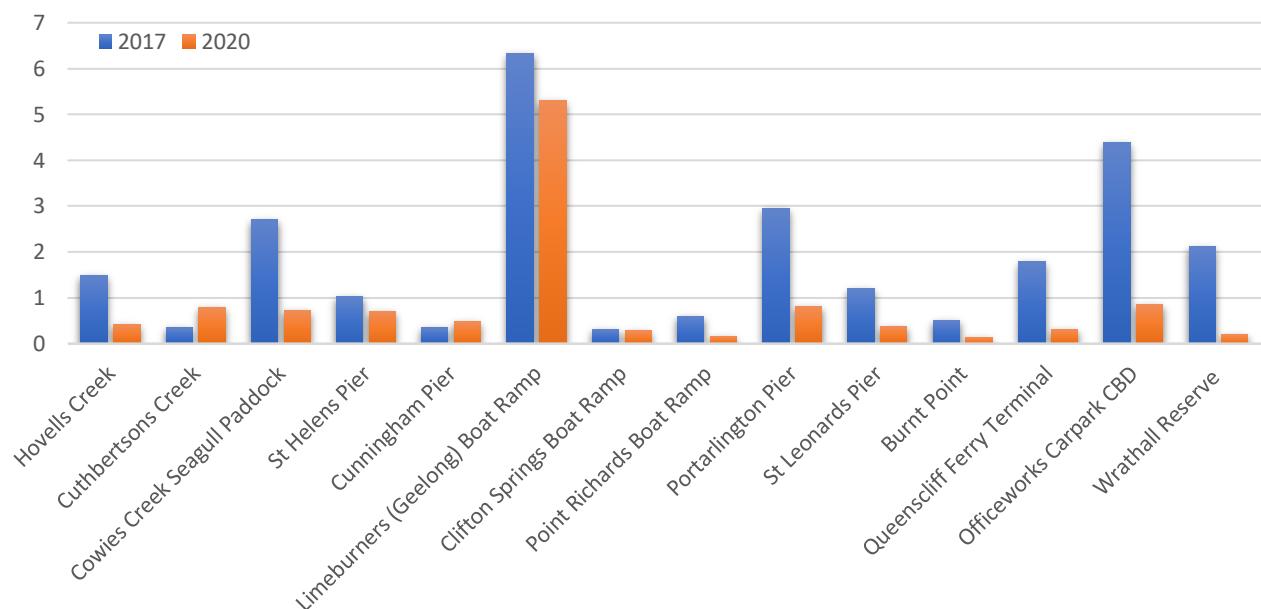


Summary Analysis

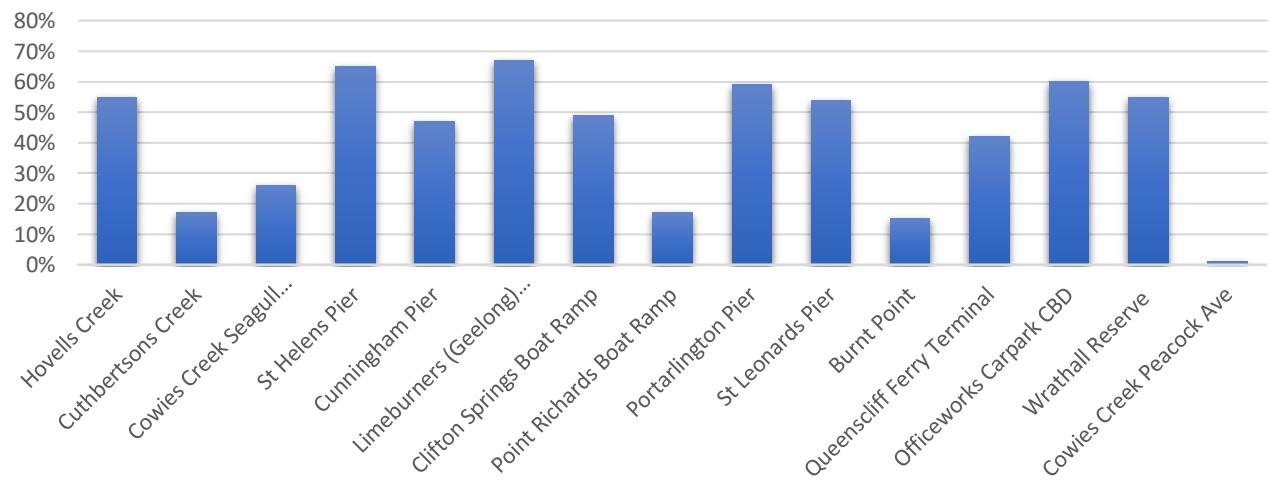


Limeburners (Geelong) Boat Ramp remains the hotspot with the highest litter abundance at 5.3 pieces of litter/m². All sites except some at Cuthbertsons Creek and Cunningham Pier have decreased in litter abundance since 2017. Six of the fifteen hotspots sites still have litter abundance above 0.5 pieces/m² which will continue to be monitored on a quarterly basis. All other sites have consistently low litter abundance, with some spikes in litter over the Summer holiday period. These sites will be monitored at the end of this Summer period and Winter for comparison and ensure low litter levels are sustained.

Comparative Abundance of Litter/m² at Hotspot Sites 2017-2020



Cigarette Butts as a Percentage of Total Litter at each Hotspot Site





3.1. Hovells Creek Corio, Geelong



Totals

Litter Audits: 33

Clean Ups: 6

Audit Items: 1167

Vol Hours: 325

Hovells Creek is situated in Northern Geelong and is connected to Corio Bay which is adjacent to Geelong city. The area is a significant Ramsar site with seagrass and saltmarsh habitat, attracting abundant bird life. The monitoring sites consists of 3 subsites; a carpark, a walking track and the rotunda at the start of the walk/bike trail. BCN has increased its presence in North Geelong over the past few years increasing CFOB signage, environmental education days for surrounding schools and Summer By the Sea holiday activities. The site is cleaned each month by the Department of Justice Community Service teams on behalf of the City of Greater Geelong.

Litter auditors: BCN staff and Department of Justice

Clean ups: BCN, Community, Department of Justice

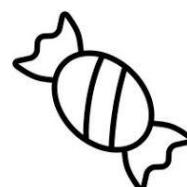
Observed causes of litter: People parking in carpark to eat fast food takeaway whilst overlooking the creek. People seating in adjacent rotunda area smoking and eating takeaway.



Cigarette Butts
55%



Small Plastic Items
9%



Food Wrappers
6%



Plastic Fragments
6%



Bottle Tops
4%



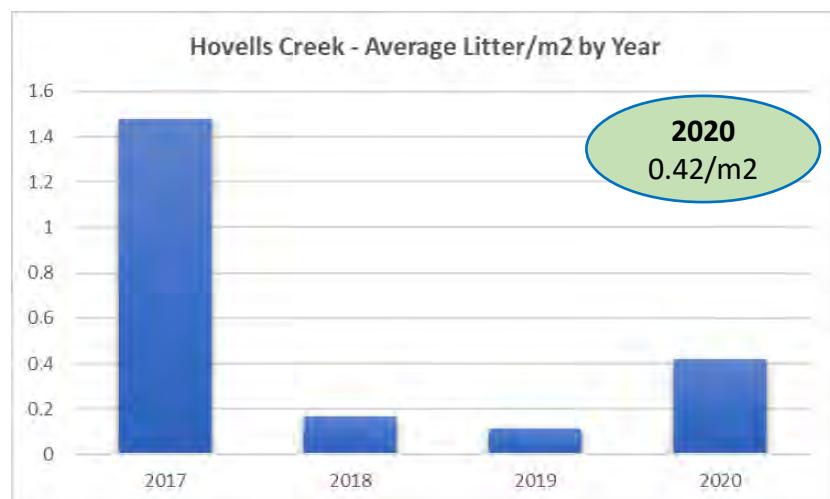
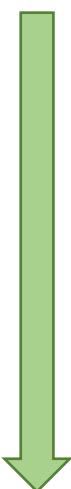
Hovells Creek Corio, Geelong



Large decrease by 72% average litter abundance from 2017 to 2020. Decrease in all 3 subsites:

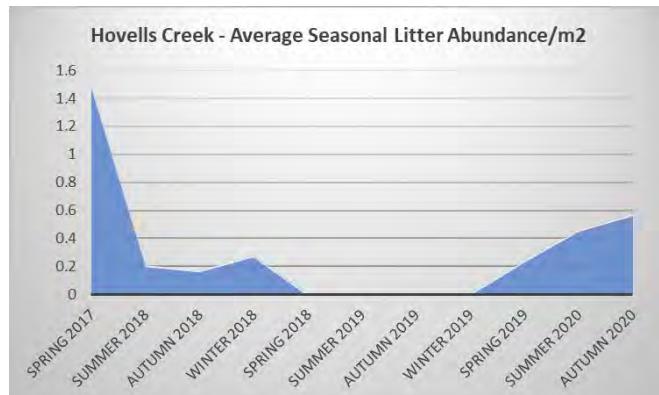
- Carpark
- Rotunda
- Walking Track

Spike in litter abundance was seen post Covid19 lockdown which may be explained by higher usage of natural areas and eating takeaway in cars as an alternative to dining in.

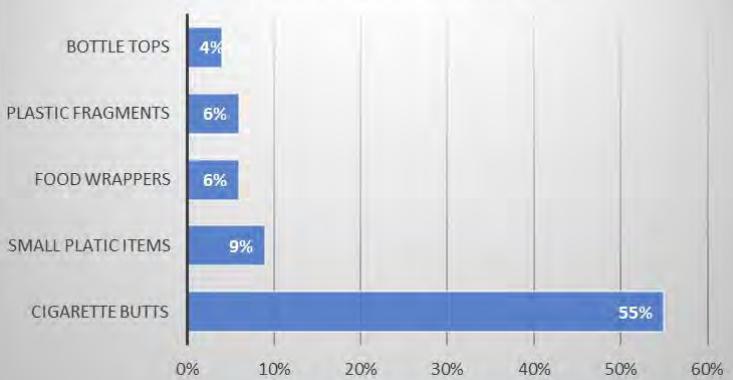


Recommendations:

- Summer/Winter monitoring
- Install butt bin at rotunda seating area
- Continue to conduct education and activities on site and in Northern Geelong.



Hovells Creek - Top 5 Litter Items (%)





3.2 Cuthbertsons Creek Corio, Geelong



Totals

Litter Audits: 24

Clean Ups: Many

Audit Items: 1016

Vol Hours: 199

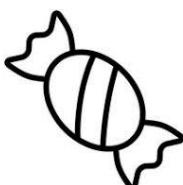
The Cuthbertsons Creek litter hotspot site is adjacent to a KFC and McDonald's outlet, a skate park as well as the City of Greater Geelong fOrT youth centre. Both KFC and the fOrT have partnered with CFOB to implement actions to reduce litter in this area. CFOB signage has been installed the KFC drive thru to remind people to 'do the right thing' and link litter impacts to the waterway and bay. KFC have installed an additional bin and staff do daily clean ups in the carpark around the store. The fOrT start their afternoon with a clean up to ensure students using the site are responsible for keeping the grassed area in front of the building clean. Installation of the new skatepark has seen a marked increase in litter adjacent to that site.

Litter auditors: BCN staff and Department of Justice

Clean ups: BCN, Department of Justice +Daily KFC and The fOrT

Observed causes of litter: People eating take away food from adjacent takeaway outlets.

Littering cigarette butts into garden as approaching drive through. Skatepark users.



Food Wrappers
20%



Cigarette Butts
17%



Small Plastic Items
17%



Takeaway Containers
10%



Plastic Bottles
9%



Cuthbertsons Creek

Corio, Geelong



Increase in total average litter abundance from 2017 to 2020.

Increase in two subsites:

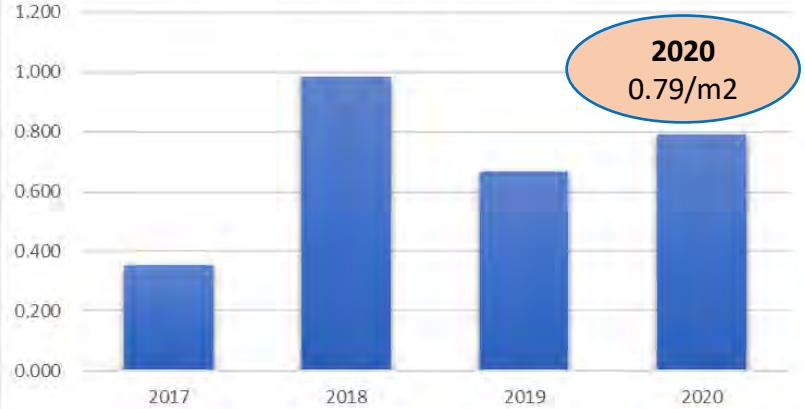
- Vegetation
- Skatepark

Decrease at 1 subsite:

- Creek

Decrease seen from 2018 to 2019 post Drivethru signage and partnership with KFC and the fOrT. Increase in 2020 may be skewed due to lack of monitoring during Covid19 lockdown. Increase at 2 subsites:

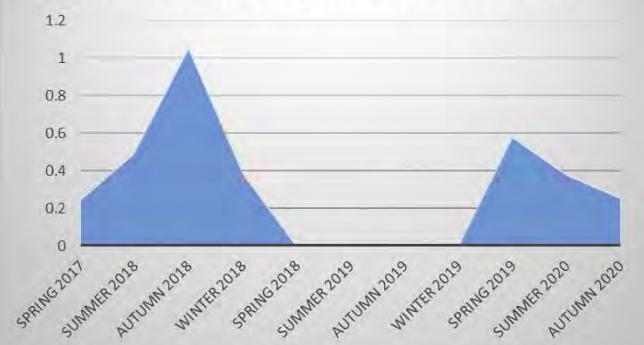
Cuthbertsons Creek - Average Litter/m² by Year



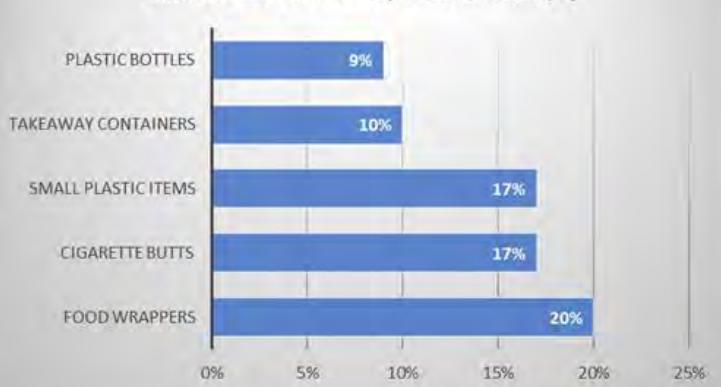
Recommendations:

- Quarterly monitoring
- Continue partnership with KFC and the fOrT and approach McDonalds again
- Continue to conduct education and activities on site and in Northern Geelong
- CFOB signage installation at skatepark
- Litter trap at entrance to channel
- Revegetate riparian areas in association with community, students and fast food staff to increase connection to waterway and increase natural look and appreciation

Cuthbertsons Creek - Average Seasonal Litter Abundance/m²



Cuthbertsons Creek - Top 5 Litter Items (%)





3.3 Cowies Creek Seagull Paddock North Geelong



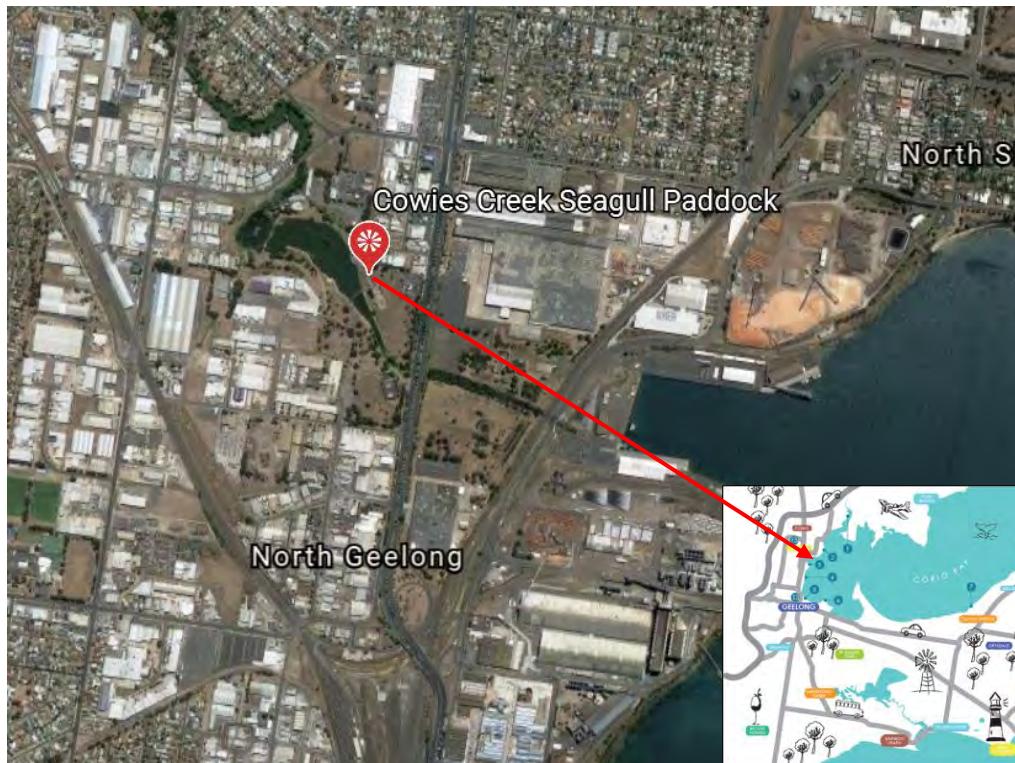
Totals

Litter Audits: 24

Clean Ups: 4

Audit Items: 1248

Vol Hours: 185



Cowies Creek Seagull Paddock is situated in North Geelong surrounded by housing and industry. This site has some high-quality riparian vegetation as well as being home to a population of Growling Grass Frog. Seagull Paddock is an area used for recreation and picnicking and is also adjacent to a many fast food outlets. During 2019 CFOB signage was installed in this second KFC drive through to showcase the impacts of litter on our waterways and bays and to remind people to put their rubbish in the bin. The Department of Justice also undertake monthly clean ups at this site on behalf of the City of Greater Geelong. A new Friends of Cowies Creek is being formalised with the support of BCN.

Litter auditors: Department of Justice and BCN staff

Clean ups: Department of Justice

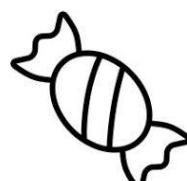
Observed causes of litter: People parking in carpark to eat fast food takeaway whilst overlooking the creek. People seating in adjacent grassed area smoking and eating takeaway.



Cigarette Butts
26%



Small Plastic Items
20%



Food Wrappers
16%



Plastic Fragments
8%



Plastic Bottles
5%



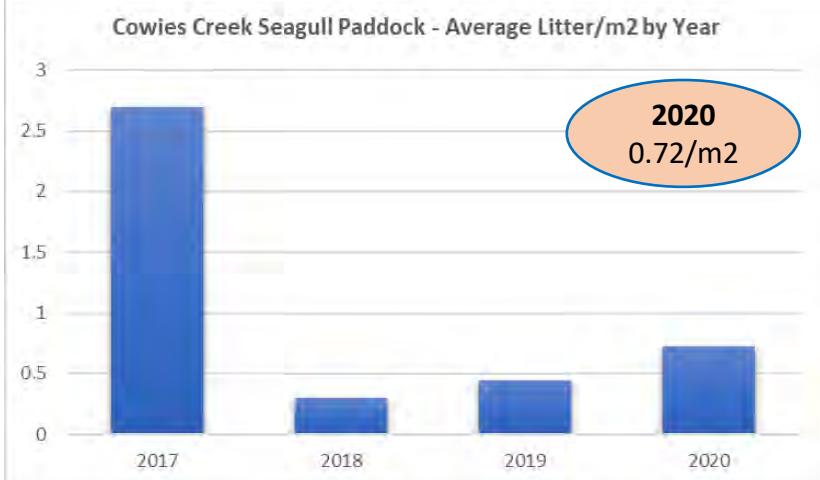
Cowies Creek Seagull Paddock North Geelong



Large decrease by 73% in average litter abundance from 2017 to 2020. Decrease in both sub-sites:

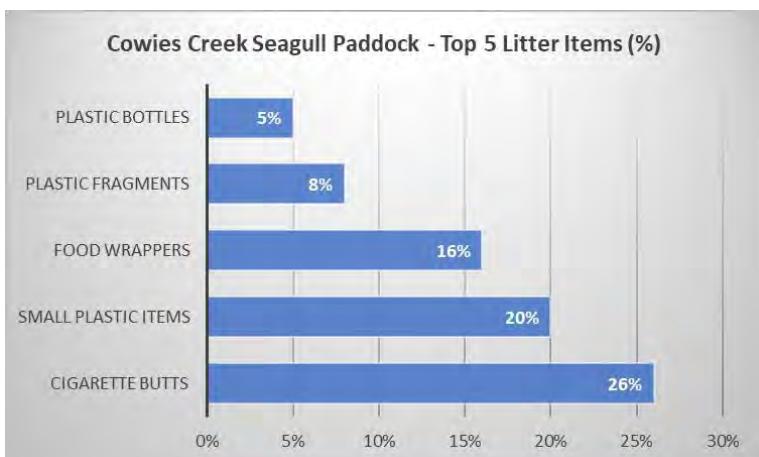
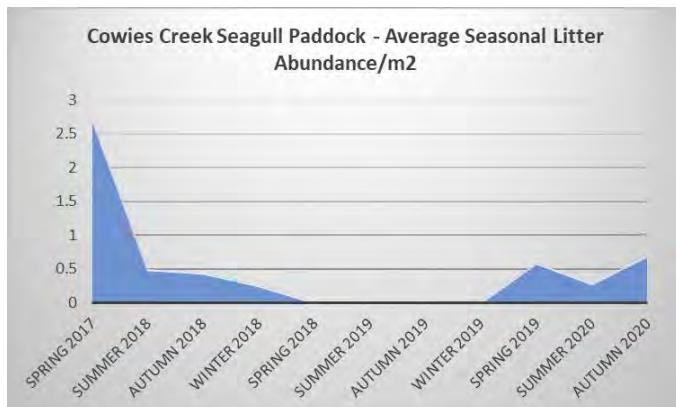
- Carpark rock wall
- Grass seating area

Some spikes in litter abundance were seen during Summer and post Covid19 lockdown period which may be explained by more people accessing takeaway and social distancing eating in their car.



Recommendations:

- Quarterly monitoring
- Install butt bin near seating area
- Continue to work with adjacent takeaway outlets to increase awareness and staff clean up days
- CFOB Hero mural installation on toilet block next to carpark

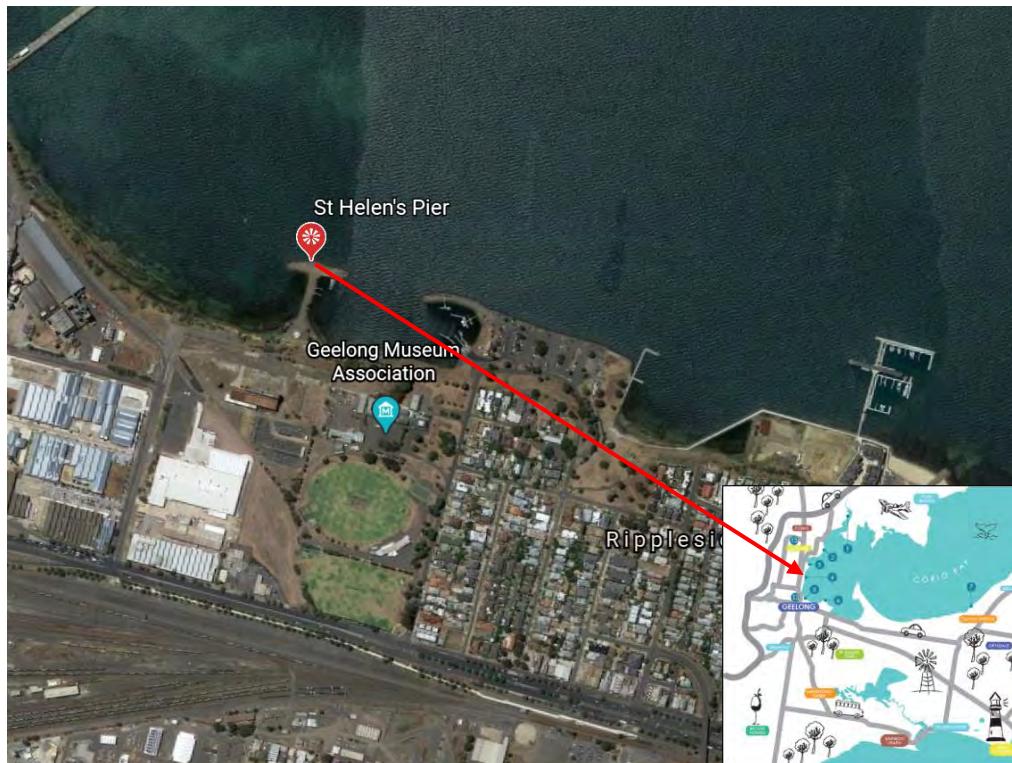




3.4 St Helen's Pier Rippleside, Geelong



Totals



Litter Audits: 46

Clean Ups: Many

Audit Items: 807

Vol Hours: 263



St Helens Pier is located adjacent to the industrial area in Rippleside, Geelong and consists of a fishing platform on a rock wall for easy fishing access. The site has had a fishing line bin installed in the past but it is now broken and missing a bottom so there is no bin close to the platform, with the closest one in the carpark. There are two subsites: the platform and the carpark at the start of the walking track. This site used to be cleaned monthly by the Department of Justice Community Service teams, however a small group of local fisherman using this site on a regular basis, have started to do at least weekly clean ups. This has resulted in very low counts of large litter items being recorded during audits.

Litter auditors: BCN staff, Department of Justice

Clean ups: Volunteers, Department of Justice

Observed causes of litter: This site is a popular fishing location, with that main items of litter associated with this user group of smoking and fishing items.



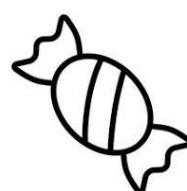
Cigarette Butts
65%



Fishing Items
18%



Plastic Fragments
5%



Food Wrappers
2%



Glass Bottles
2%



St Helen's Pier

Rippleside, Geelong

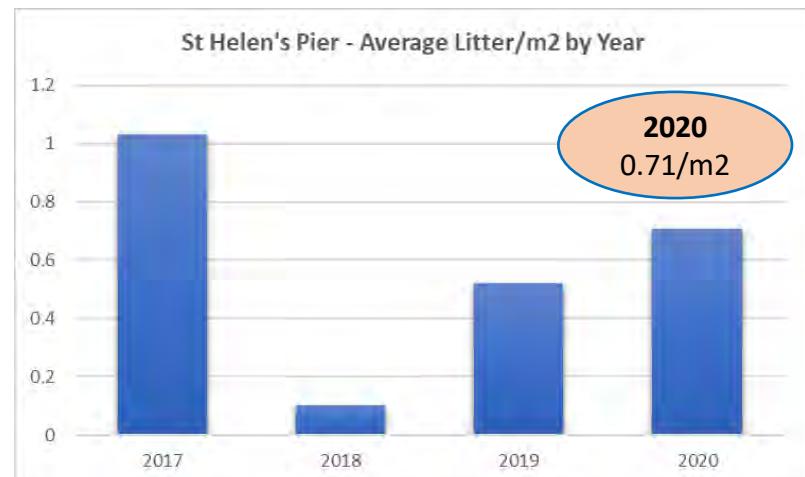


Decrease by 31% in litter abundance from 2017 to 2020. However litter is on an upward trend and post Covid19 which may have been skewed as monitoring was not conducted during lockdown.

Decrease in both subsites:

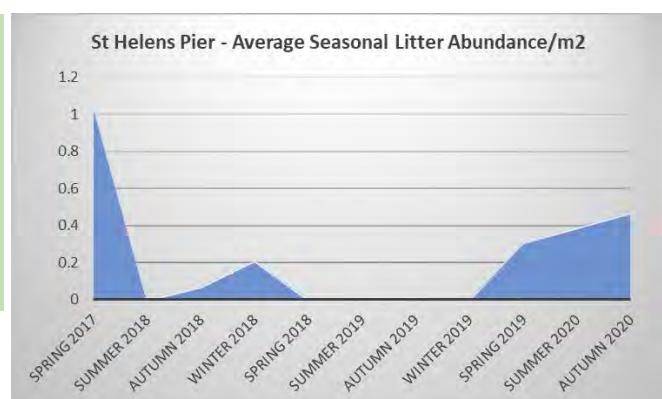
- Fishing Platform
- Walking track

A spike in litter was seen during the warmer months due to increased use.



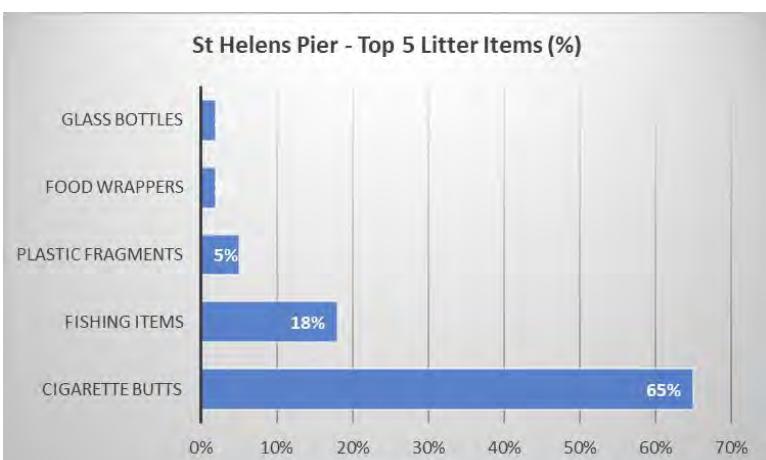
Recommendations:

- Summer/Winter monitoring
- Install butt bin at fishing platform
- Work to engage with fishing users to encourage litter reduction. 'I pledge to take my rubbish with me - don't destroy what you came to enjoy! decal on tackle box.



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3.5 Cunningham Pier Geelong



Totals

Litter Audits: 12

Clean Ups: 0

Audit Items: 285

Vol Hours: 60



Cunningham Pier is privately owned by Costa Property Group and is located adjacent to the Geelong CBD region and hosts 100,000's of visitors each year. It has the potential to be a litter hotspot due to its location and high use platform to restaurants and also a local fishing spot. CoGG land adjacent hosts the foreshore reserve with recreational walks, grassed picnic area and playgrounds. This is the prominent centrepiece of Geelong and is cleaned on a regular basis by the City of Greater Geelong/ contractors. There are low levels of small litter, mostly cigarette butts, that are missed during clean ups on the grassed subsite. Cunningham Pier was monitored by volunteers, then a home school family and now BCN staff due to the consistently low litter levels. A butt bin was installed at the first shelter shed on the pier which has seen a marked decrease in cigarette butts on site.

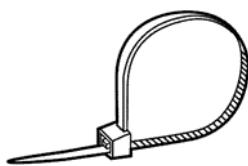
Litter auditors: Volunteers, BCN staff

Clean ups: CoGG staff/contractors

Observed causes of litter: This site is a popular fishing and recreational location, with that main items of litter associated with this user group of smoking and fishing items.



Cigarette Butts
47%



Hard Plastics
11%



Plastic Fragments
10%



Fishing Items
9%



Glass Bottles
7%



Cunningham Pier Geelong



Slight increase in litter abundance from 2017 to 2020. However litter records have been consistently low at this site except during 2018. Litter may be impacted due to Covid19 which may have been skewed as monitoring was not conducted during lockdown.

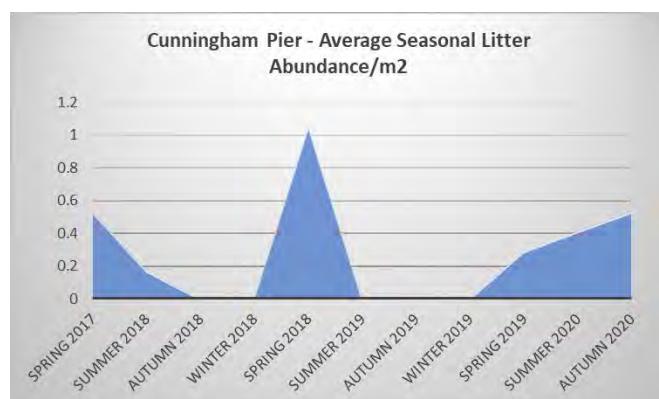
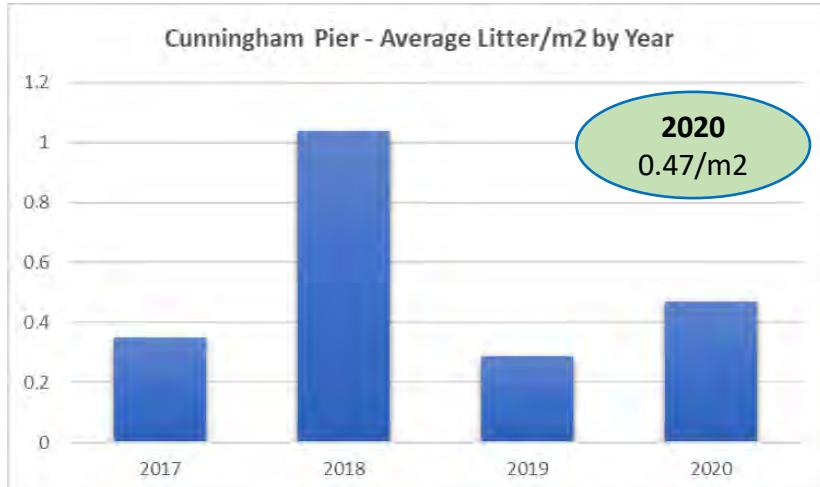
Increase in both subsites:

- Pier
- Grass

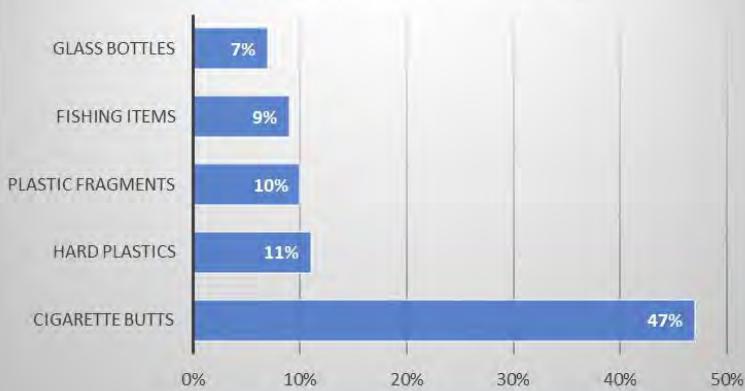
A spike in litter was seen during the warmer months due to increased use. A reduction in cigarette butts has not been observed since the installation of the butt bin. This may be due to lack of will for fisherman to leave fishing spots to dispose of butts.

Recommendations:

- Summer/Winter monitoring
- Work to engage with fishing users to encourage litter reduction. 'I pledge to take my rubbish with me - don't destroy what you came to enjoy! decal on tackle box.



Cunningham Pier - Top 5 Litter Items (%)

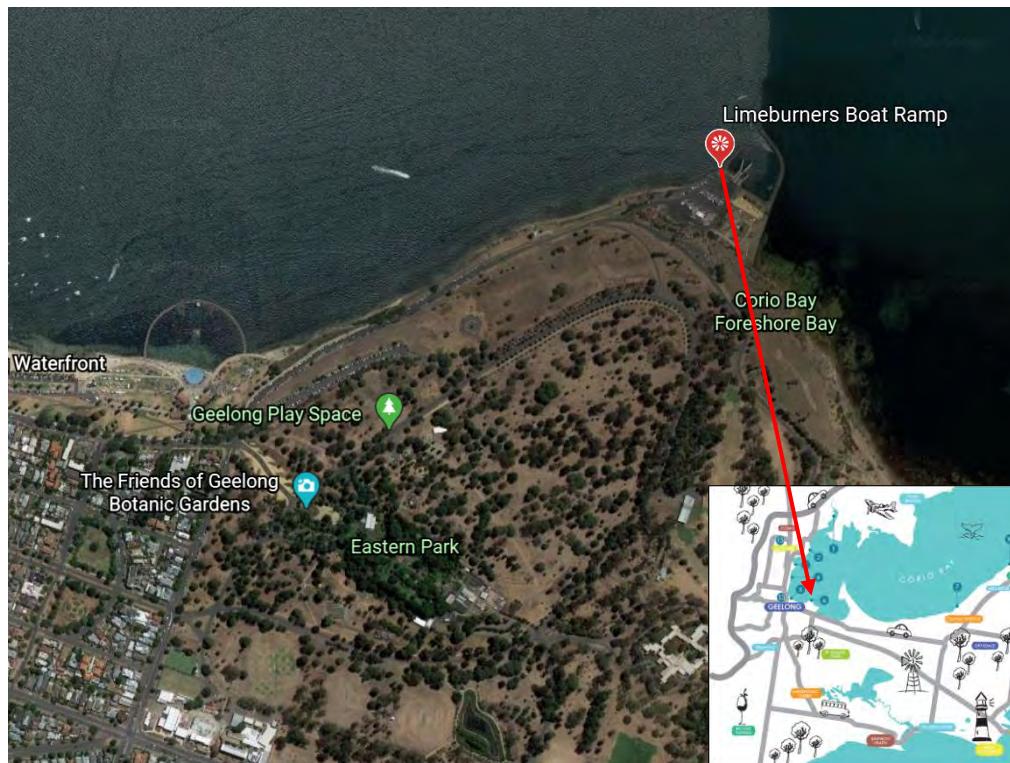




3.6 Limeburners Boat Ramp Geelong



Totals



Litter Audits: 29

Clean Ups: 2

Audit Items: 12853

Vol Hours: 294

Limeburners Boat Ramp (Geelong Boat Ramp) is located adjacent to Eastern Beach in the centre of Geelong. It is a highly used space for boat access, and lookout parking location due to the relative isolation and view. It experiences high levels of 'hoon' behaviour as seen in circle work tyre marks and large amounts of fragmented rubber for tyres. The most abundant litter item is cigarette butts with high densities found in gutters and areas adjacent to the carpark. This site remains the worst litter hotspot site in our region with an average of 8 pieces of litter per square metre. Conservation Volunteers Australia clean this site each month on behalf of City of Greater Geelong.

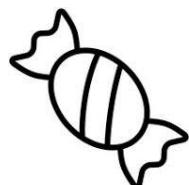
Litter auditors: Volunteers, CVA, BCN staff

Clean ups: Volunteers, Businesses CFOB, BCN Staff

Observed causes of litter: This site is a popular fishing access location and parking area, with that main items of litter associated with this user group of smoking and food litter.



Cigarette Butts
67%



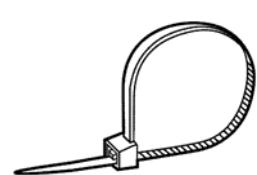
Food Wrappers
18%



Plastic Fragments
5%



Glass Bottles
2%



Hard Plastics
2%



Limeburners Boat Ramp Geelong

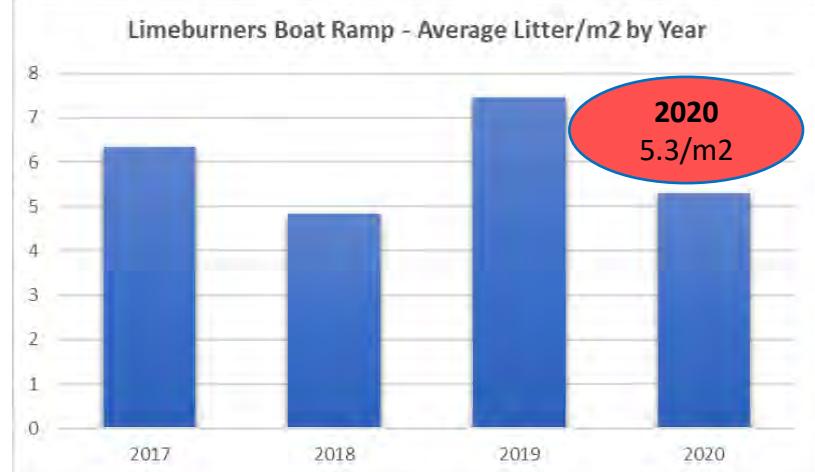


Decrease by 16% in litter abundance from 2017 to 2020. However litter at this site is always high. Covid19 may have impacted data during the 2020 lockdown.

Decrease in both subsites:

- Carpark Rockwall
- Carpark Rail

A spike in litter was seen during the warmer months due to increased use.

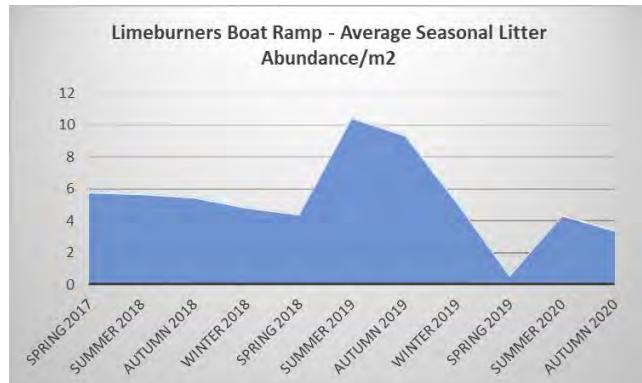


Recommendations:

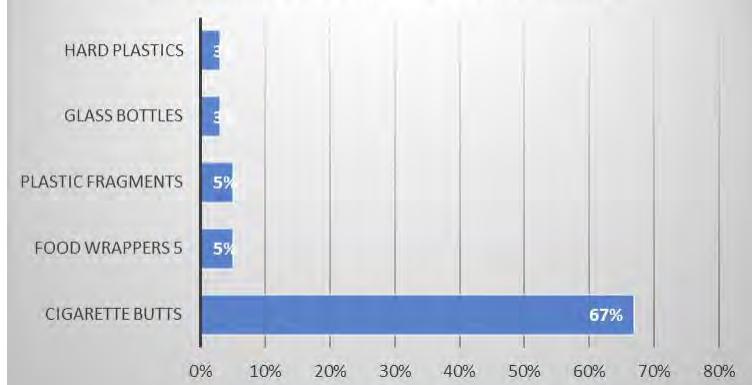
- Quarterly monitoring
- Install butt bins near fish cleaning table and next to carpark rock wall path
- Install speed hump to reduce hoon use and associated litter items
- Increase lighting to deter parking
- Work to engage with fishing users to encourage litter reduction. 'I pledge to take my rubbish with me - don't destroy what you came to enjoy! decal on tackle box.

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Limeburners Boat Ramp - Top 5 Litter Items (%)





3.7 Clifton Springs Boat Ramp Clifton Springs, Geelong



Totals

Litter Audits: 99

Clean Ups: 3

Audit Items: 3000

Vol Hours: 335



Clifton Springs Foreshore Reserve is a popular recreational usage site and has a large boat ramp. A large Hero mural was installed on the toilet block in 2018 in collaboration with CoGG with the Drysdale Clifton Springs Curlewis Association. There are significant environmental values in this location and a new community group has now formalised with the assistance of BCN to form the Clifton Spring Curlewis Coastcare Group. In addition, school environment days and community planting days have increased the awareness of the values of this region. Not unlike other litter hotspots, cigarette butts comprised the highest litter type. Recreational usage and fishing related litter including food wrappers and plastic items make up the majority of the other litter found at this site.

Litter auditors: Volunteers

Clean ups: Clifton Springs Curlewis Coastcare Volunteers, Clifton Springs PS

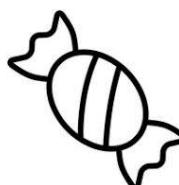
Observed causes of litter: This site is a popular recreational use and fishing location, with the main items of litter associated with these user groups of smoking, food and fishing.



Cigarette Butts
49%



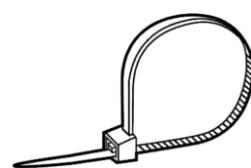
Small Plastic Items
12%



Food Wrappers
10%



Fishing Items
7%



Hard Plastics
5%



Clifton Springs Boat Ramp

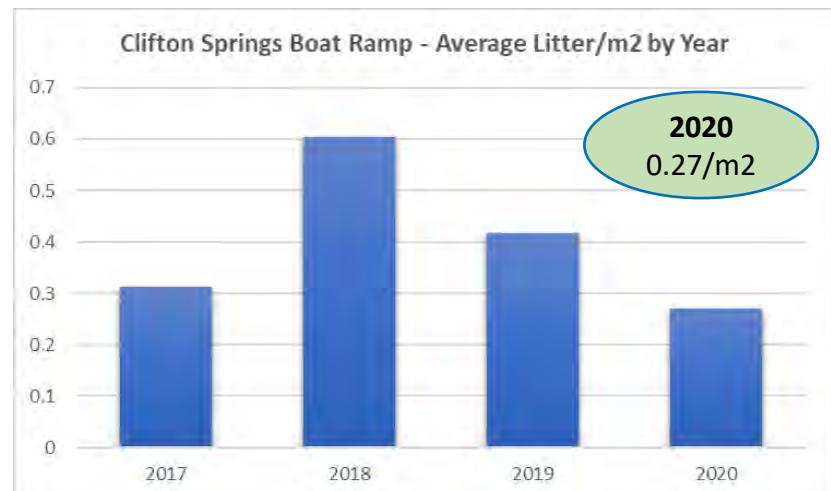
Clifton Springs, Geelong



Decrease of 13% in average litter abundance from 2017 to 2020 with a overall low litter abundance seen throughout the year. Peak litter occurs during Summer and Easter holiday periods. Clear downward trend in litter since 2018.

Decrease in all 4 subsites

- Beach
- Boat Ramp
- Sitting Area
- Pier

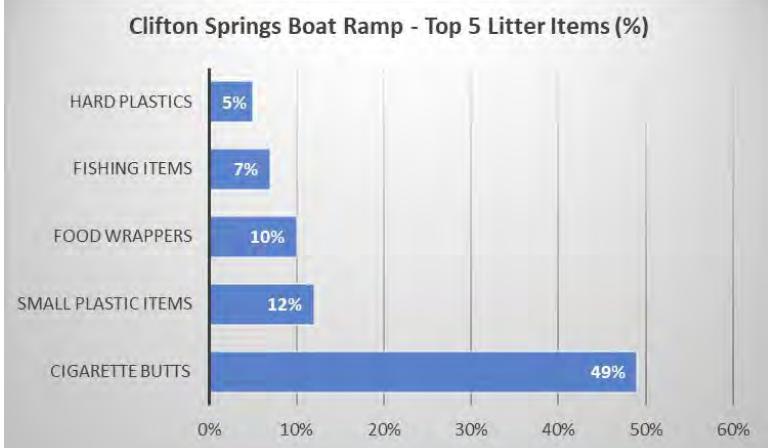
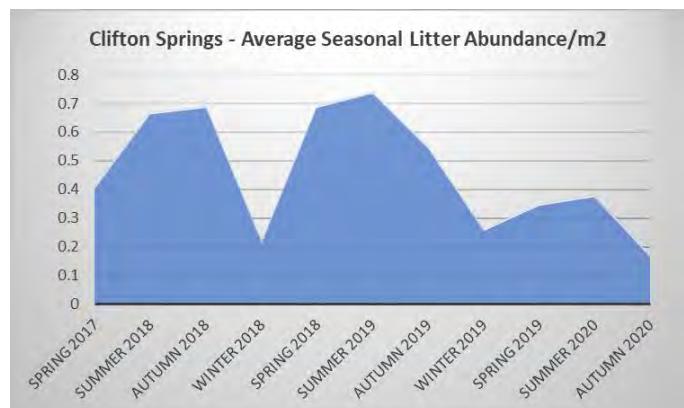


Recommendations:

- Summer/Winter monitoring
- Install LOTE signage
- Continued support for City of Greater Geelong and Coastcare group to conduct education activities and on-ground action with schools and community.

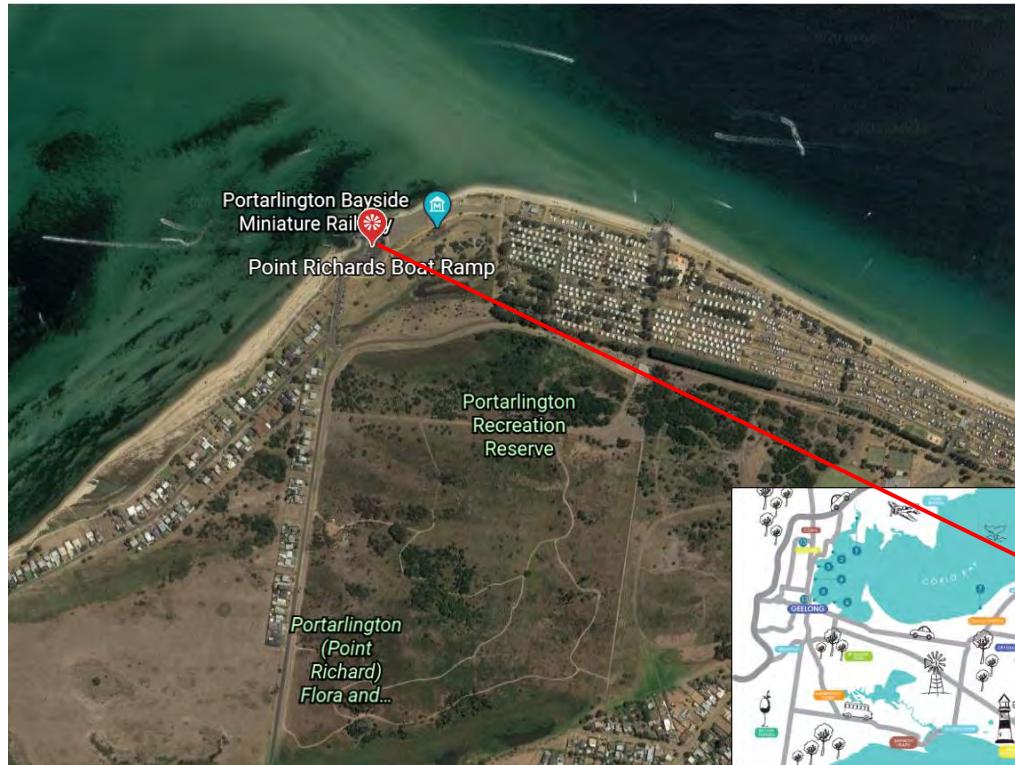


Clifton Springs Curlewis Coastcare





3.8 Point Richards Boat Ramp Portarlington



Totals

Litter Audits: 59

Clean Ups: -

Audit Items: 2670

Vol Hours: 266



Point Richards Reserve is a coastal foreshore area comprised of a boat ramp, picnic tables, miniature railway and sailing club; so is a hub of activity, especially in the warmer months. With high numbers using the site over the summer months and Easter holiday break an increase in litter is recorded during these times. The site has been upgraded and is managed and maintained by the Bellarine Bayside Foreshore Committee of Management with CFOB signage along the entire foreshore in this region. The litter at this site is influenced by visitor usage as well as marine litter collecting on the beach areas. Several subsites have ceased throughout the duration of the litter hotspot program due to consistently low litter levels being recorded and one site for safety concerns. In lieu of this new subsites have been established and monitored.

Litter auditors: Volunteers

Clean ups: Volunteers, Friends of Point Richards, Bellarine Bayside staff

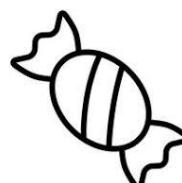
Observed causes of litter: This site is a popular recreational use and fishing location, with the main items of litter associated with these user groups of smoking, food and fishing.



Cigarette Butts
49%



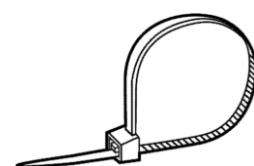
Small Plastic Items
12%



Food Wrappers
10%



Fishing Items
7%



Hard Plastics
5%



Point Richards Boat Ramp Portarlington



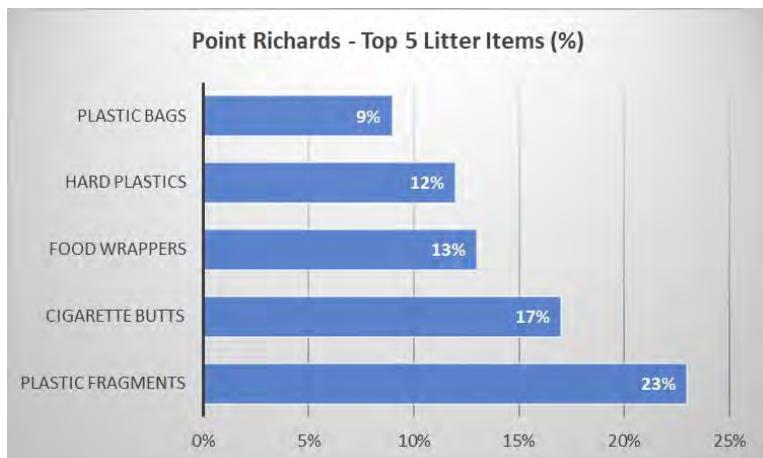
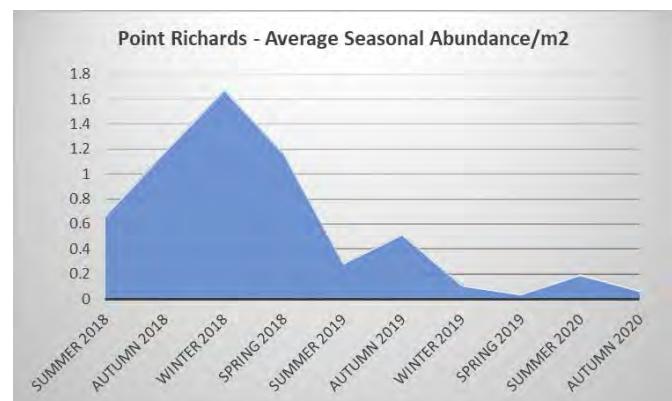
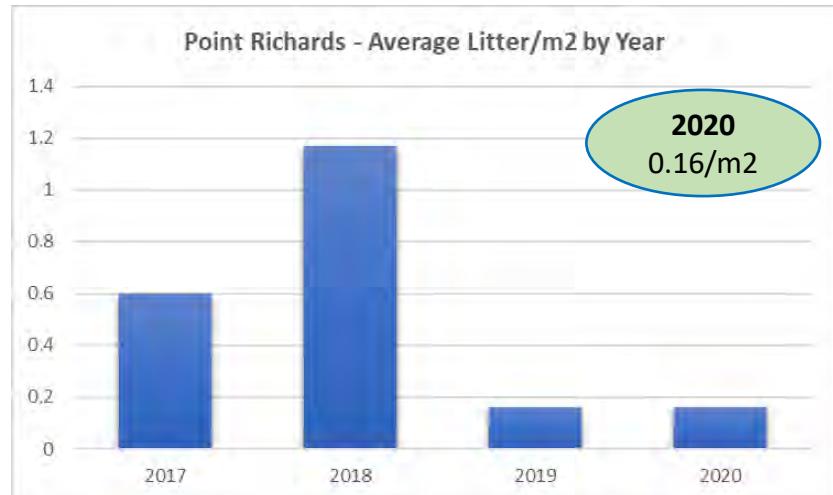
Decrease of 73% in average litter abundance from 2017 to 2020 Jetty 1 and the Boat Ramp sites were deemed unsafe for volunteers to continue to monitor post 2018 due to change in inundation levels and build-up of seagrass. This has impacted the results from 2018 through to 2020. Peaks in winter 2018 can be explained by storms bringing litter to shore. All current sites showing very low litter abundance. Seagrass at the Boat Ramp is excavated on a regular basis with litter amongst also extracted.

Decrease in all 3 subsites

- Picnic area
- Jetty 2
- Sailing Club

Recommendations:

- Summer/Winter monitoring
- Continued support for Bellarine Bayside to conduct education activities and on-ground action with schools and community.





3.9 Portarlington Pier Portarlington



Totals

Litter Audits: 17

Clean Ups: 10

Audit Items: 2626

Vol Hours: 105



Bellarine Bayside Foreshore Committee of Management manage this foreshore area, however the pier is managed by Parks Victoria. It is a high use commercial pier with Port Phillip Ferries docking alongside commercial mussel boats and recreational vessels. CFOB has also conducted clean ups and audits along this foreshore area with the BBFCoM Nature Cadets, Destination Conservation group and for the National Celtic Festival. These activities resulted in 100's of litter items being removed from the vicinity. BCN also delivers environmental education days to locals schools in conjunction with BBFCoM and in partnership with Port Phillip Ferries to deliver the 'Bay Edventure' program. Summer holiday events, Mussel Festival and National Celtic Festival are supported by BCN; increasing environmental knowledge and awareness. A butt bin was installed as part of the CFOB program at the pier in May 2019 in order to address this main litter source which has seen a reduction by 16%.

Litter auditors: Volunteers, BCN staff

Clean ups: Volunteers, Nature Cadets, Destination Conservation, BCN staff

Observed causes of litter: This site is a popular tourist and fishing destination with the main items of litter associated with these user groups of smoking and food related items.



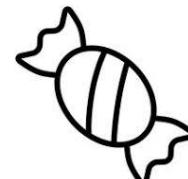
Cigarette Butts
59%



Plastic Fragments
17%



Paper/Cardboard
4%



Food Wrappers
4%



Other Metal
2%



Portarlington Pier

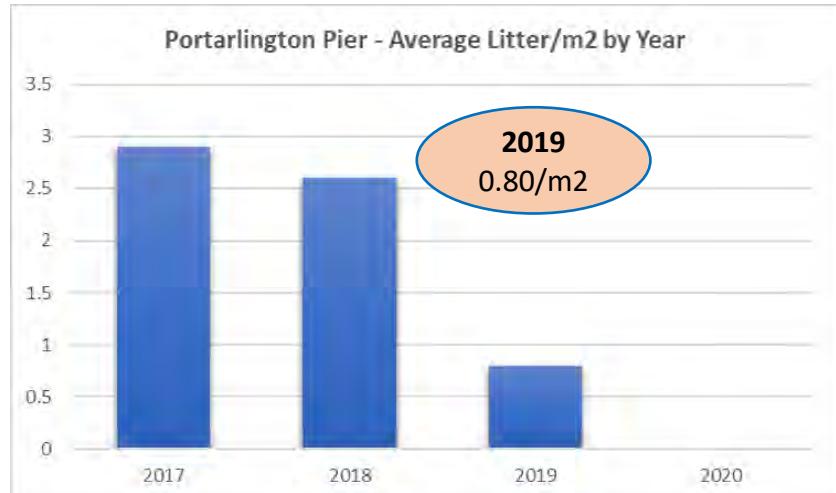
Portarlington



Decrease of 72% in average litter abundance from 2017 to the end of 2019 with medium litter abundance. There were no audits in 2020 due to covid impacts on volunteers. Peak litter occurs during Summer and Easter holiday periods. Clear downwards trend from 2017.

Decrease in both subsites

- Carpark
- Rockwall



Recommendations:

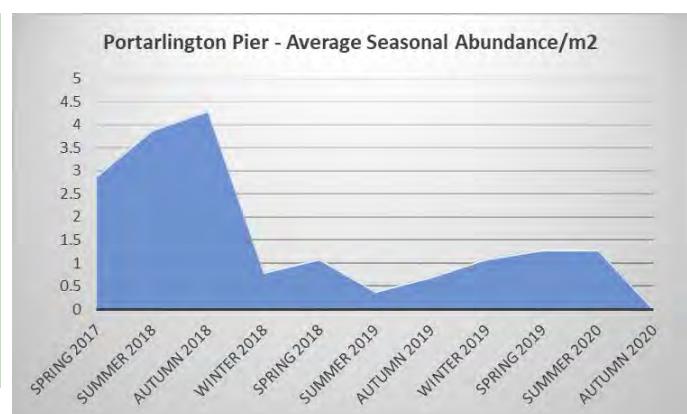
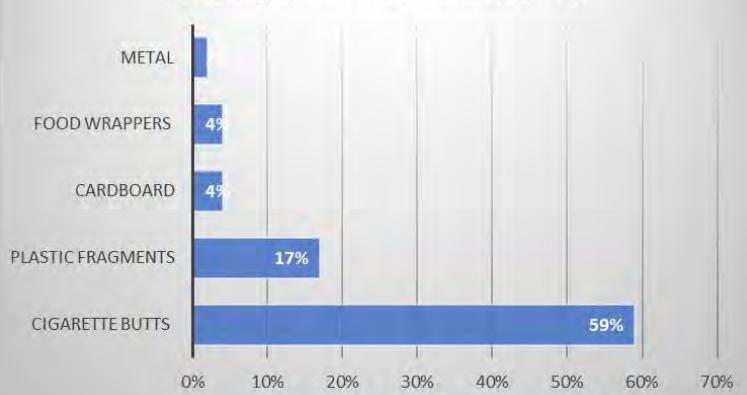
- Quarterly monitoring
- Install CFOB LOTE signage
- Work with Parks to incorporate signage in new pier structure
- Continue to work with schools and community in the region to increase environmental awareness and impacts of litter.



**Bellarine
Bayside**
Coastal Management



Portarlington Pier - Top 5 Litter Items(%)





3.10 St Leonards Pier

St Leonards



Totals

Litter Audits: 54

Clean Ups: 3

Audit Items: 1965

Vol Hours: 188



The St Leonards litter hotspot is comprised of 3 subsites; carpark, beach and Harvey Park. This area is managed by Bellarine Bayside Foreshore Committee of Management and City of Greater Geelong, with the pier managed by Parks Victoria. These subsites cover areas with different visitor usage. St Leonards Primary School is an active group in this location, with the Pier and the animals living under it making up their school culture. BCN conducts at least one school environment day with St Leonards PS in conjunction with BBFCoM. The carpark/picnic table subsite has shown the most litter, of mainly cigarette butts. The CFOB program installed a butt bin in this location to try and mitigate this issue, which has seen a reduction by 58%. A clean up of the beach and pier was conducted by CFOB staff and two clean up dives have taken place at this site with the support of CoGG skips.

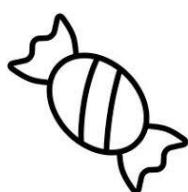
Litter auditors: Volunteers, BCN staff

Clean ups: Volunteers, BCN staff

Observed causes of litter: This site is a secluded fishing location, with the main items of litter associated with these user groups of smoking, food and fishing.



Cigarette Butts
54%



Food Wrappers
10%



Small Plastic Items
6%



Paper/Cardboard
5%



Plastic Fragments
4%



St Leonards Pier

St Leonards



Decrease of 67% in average litter abundance from 2017 to the end of 2019 with an overall low litter abundance. There were no audits in 2020 due to covid impacts on volunteers. Peak litter occurs during Summer and Easter holiday periods. Clear downwards trend from 2017.

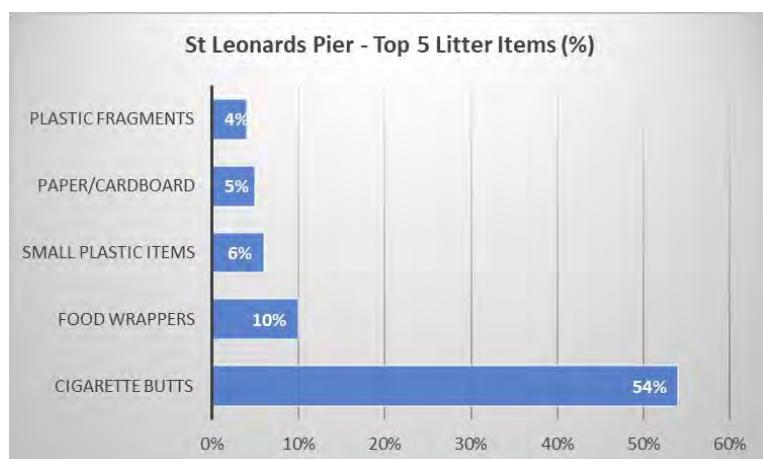
Decrease in all 3 subsites

- Beach
- Carpark
- Harvey Park Seat



Recommendations:

- Summer/Winter monitoring
- Install CFOB LOTE signage
- Work to engage with fishing users on pier to encourage litter reduction. 'I pledge to take my rubbish with me - don't destroy what you came to enjoy!' decal on tackle box.





3.11 Burnt Point Swan Bay, Queenscliff



Totals

Litter Audits: 45

Clean Ups: 22

Audit Items: 865

Vol Hours: 236



Burnt Point is an isolated stretch of salt marsh and beach found in Queenscliff on the shores of Swan Bay, a Ramsar site. The beach site is managed by Parks Victoria and the point in the municipality of the Borough of Queenscliffe. The beach subsite had a higher proportion of litter present, with the path having very low recorded litter. This site is used by local fisherman and small piles of rubbish associated with fisherman use appear to be the main source of litter. There are no bins or facilities near the beach, which is a few hundred metres walk in so litter and human waste is left behind. In addition, some litter seems to come in with the tide, such as bait bags and bottles. This site is monitored by a home school family who also undertake regular clean ups. Bellarine Secondary College have also adopted this site and do an annual environment day and clean up at the beach.

Litter auditors: Volunteers

Clean ups: Volunteers, Students, BCN staff

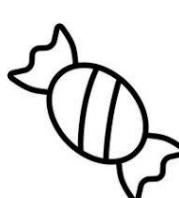
Observed causes of litter: This site is a secluded fishing location, with the main items of litter associated with these user groups of smoking, food and fishing.



Cigarette Butts
15%



Plastic Fragments
15%



Food Wrappers
9%



Glass Bottles
7%



Aluminium Cans
7%



Burnt Point

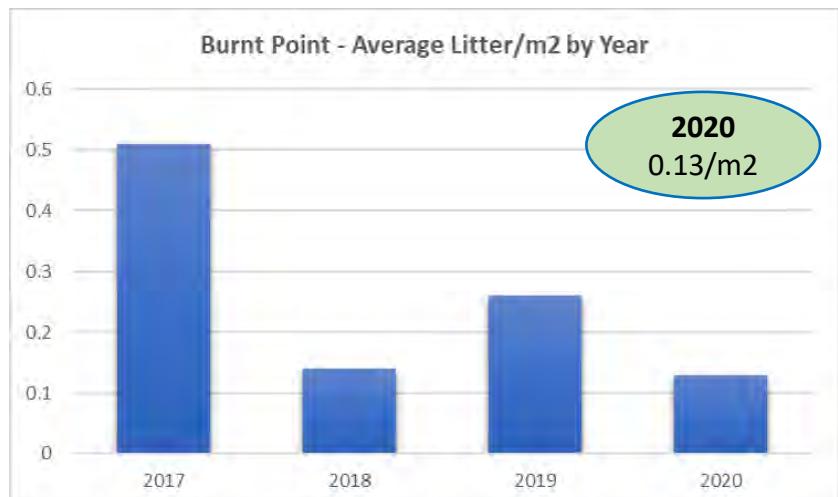
Swan Bay, Queenscliff



Decrease of 75% in average litter abundance from 2017 to 2020 with an overall low litter abundance. Peak litter occurs during Summer and Easter holiday periods. Downwards trend from 2017 with a spike in Summer 2019. Reduction may be attributed to the clean = clean philosophy with site being cleaned on a monthly basis.

Decrease in both subsites

- Beach
- Path

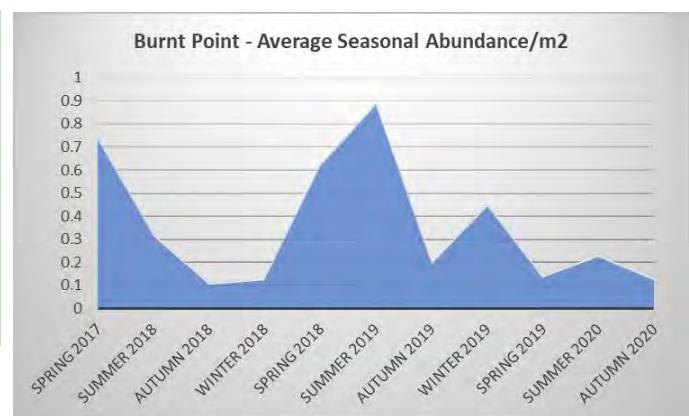


Recommendations:

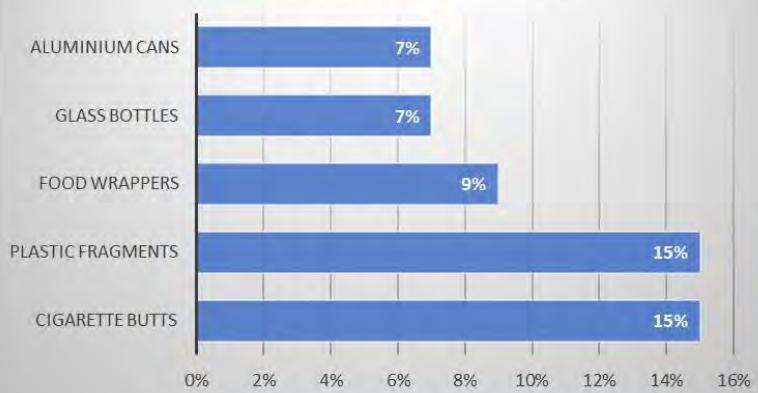
- Quarterly monitoring
- Install Ramsar CFOB signage
- Work to engage with fishing users to encourage litter reduction. 'I pledge to take my rubbish with me - don't destroy what you came to enjoy!' decal on tackle box.



**Borough
of Queenscliffe**



Burnt Point - Top 5 Litter Items (%)





3.12 Queenscliff Ferry Terminal Queenscliff



Totals

Litter Audits: 37

Clean Ups: 0

Audit Items: 2339

Vol Hours: 385



The Queenscliff Ferry terminal is located in the Borough of Queenscliffe; experiencing high amounts of foot and car traffic. The three subsites established, however due to the reconstruction of this site the Lomandra garden was the only subsite able to be continuously monitored through to 2020. The other two sites no longer exist. New sites are to be established now that the terminal renovations are complete. This site is now monitored by local volunteers each month with wind blown litter playing a role. The ticket office staff now also undertake regular clean ups around the office and their carpark as a result of the CFOB hotspot program, as well as a local hero who frequently undertakes clean ups. BCN provides environment education days to local schools and attends events such as the Queenscliff Music Festival to raise awareness within the community.

Litter auditors: Volunteers, CVA, BCN staff

Clean ups: Volunteers, Sorrento Ferry staff

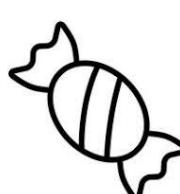
Observed causes of litter: This site has high impacts from foot and traffic use with tourists and locals alike using this popular location. Cigarette butts make up the majority of the litter



Cigarette Butts
42%



Paper/Cardboard
13%



Food Wrappers
12%



Plastic Fragments
8%



Small Plastic Items
3%



Queenscliff Ferry Terminal

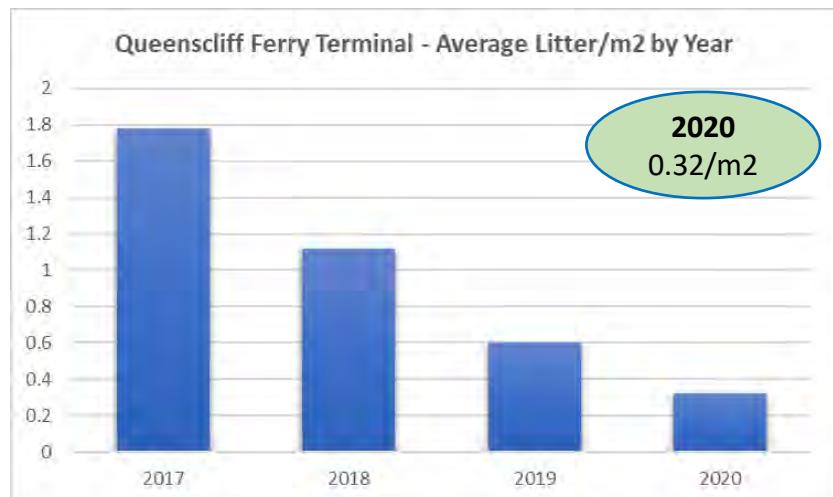
Queenscliff



Decrease of 82% in average litter abundance from 2017 to 2020 with strong downwards trend. Reduction may be attributed to the clean = clean philosophy with site being cleaned on regular basis by a local 'hero' and ferry staff as well as the new renovations to this location.

Decrease in all 3 subsites

- Lomandra garden
- Ticketing office
- Staff carpark



Recommendations:

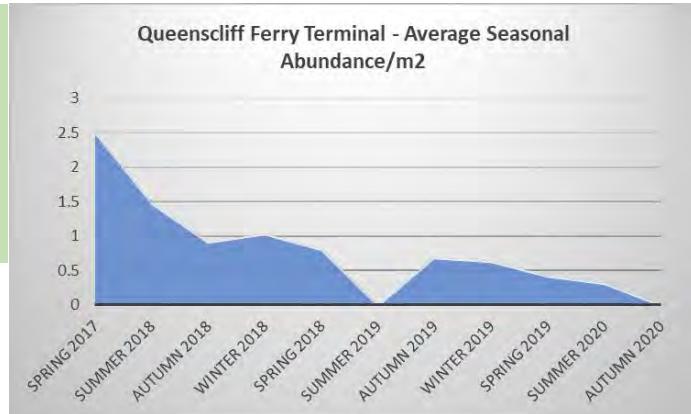
- Summer/Winter monitoring
- Install CFOB LOTE signage
- Work to Sorrento Ferry and harbour businesses to engage visitors and local community using this services.



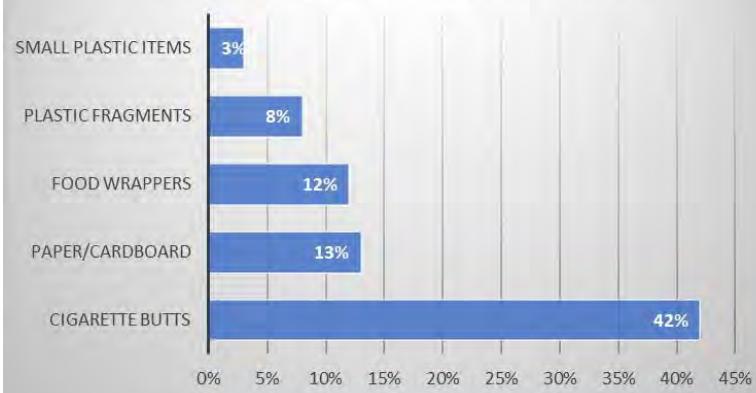
**Borough
of Queenscliffe**



SEAROAD FERRIES
QUEENSCLIFF - SORRENTO



Queenscliff Ferry Terminal - Top 5 Litter Items(%)





3.13 Officeworks CBD Geelong



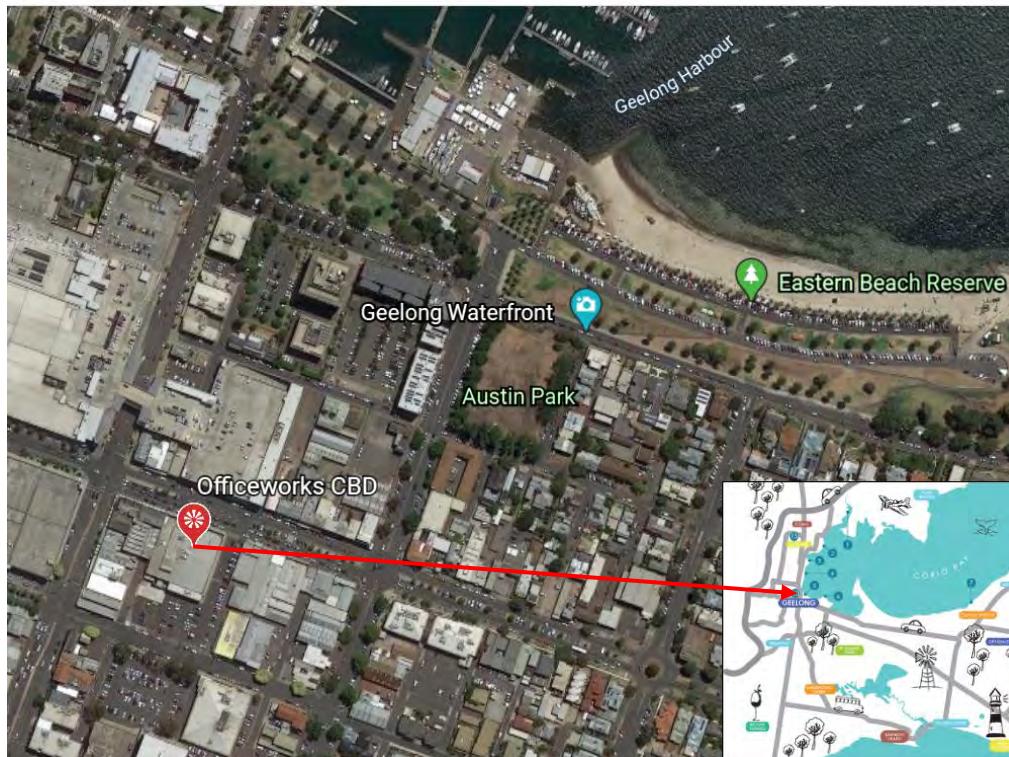
Totals

Litter Audits: 17

Clean Ups: 0

Audit Items: 3075

Vol Hours: 135



The Officeworks site consists of a gutter and walkway adjacent to the Officeworks carpark in Geelong CBD. Officeworks have partnered with CFOB to raise awareness of litter and impacts on the bay and also to raise funds for the program. They support BCN by printing their annual report and are an endorsed Businesses CFOB.

The site has two storm water drains with CFOB drain decals reminding people that what goes down the drain ends up in the bay. Initiatives to address source have been installation of a ticket bin which has seen a 90% decrease in parking ticket litter. Two butt bins were also installed by CFOB in May 2019 to address customer and staff butt litter which has resulted in a significant decrease in butts.

Litter auditors: Volunteers, CVA, BCN Staff

Clean ups: Officeworks Staff

Observed causes of litter: This site is a highly used commercial area, with the main items of litter associated with people smoking before they enter the main street.



Cigarette Butts
60%



Plastic Fragments
6%



Small Plastic Items
5%



Broken Glass
5%



Parking Tickets
4%



Officeworks CBD Geelong

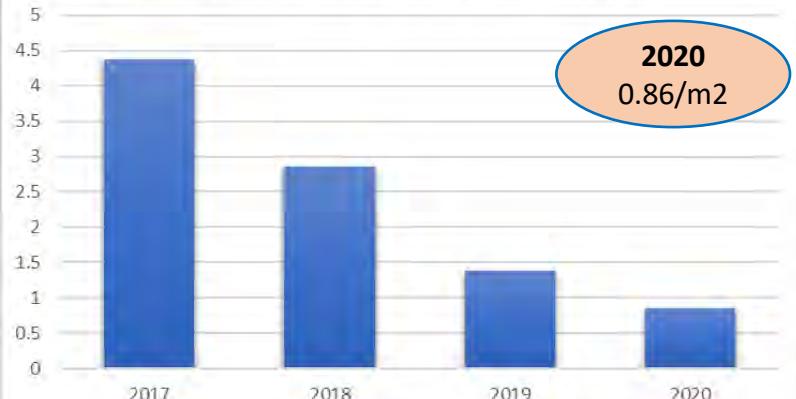


Large decrease by 80% in average litter abundance from 2017 to 2020 with a strong downward trend. Significant decrease in cigarette butts and parking tickets due to the CFOB butt bin infrastructure, ticket bin and increased awareness in store.

Decrease in this subsite

- Officeworks

Officeworks - Average Litter Density/m² by Year

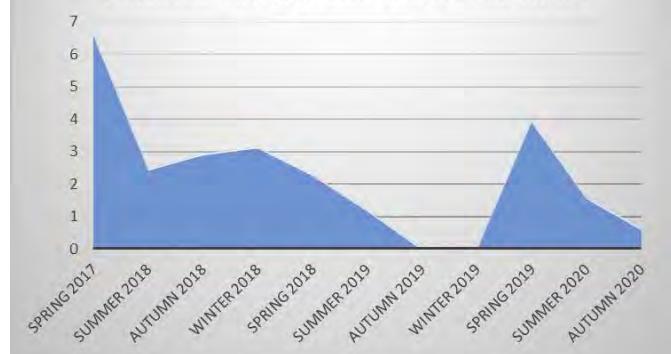


Recommendations:

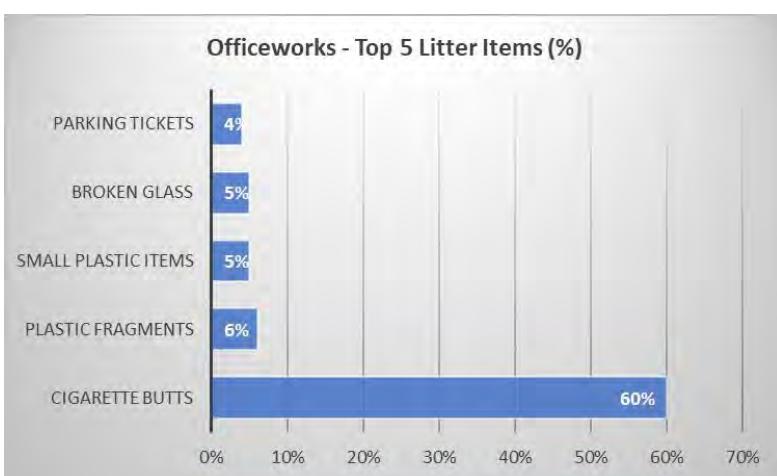
- Quarterly monitoring
- Another in-store CFOB promotion and campaign
- Corporate environmental education day for Officeworks staff



Officeworks - Average Seasonal Litter Abundance/m²



Officeworks - Top 5 Litter Items (%)





Officeworks CBD Geelong

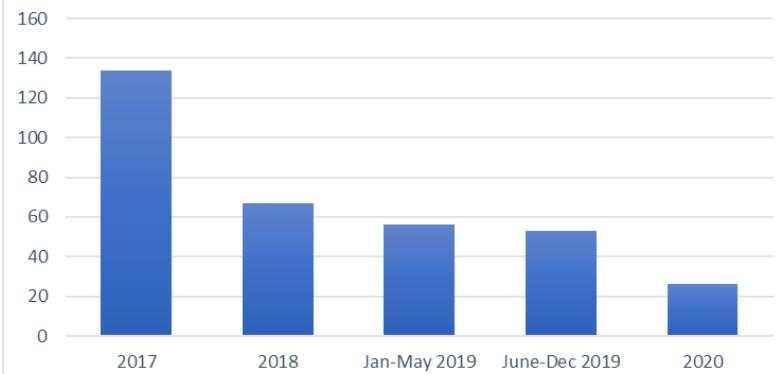


Large decrease in cigarette abundance of 81% from 2017 to June 2020. A 53% reduction in cigarette butts once the butt bins were installed in May 2019.

The Officeworks site shows cigarette butts were by far the most abundant item at 60% of all litter collected. To address this issue, CFOB installed two butt bins in May 2019 at the Officeworks site. One near the back of the building where staff and others congregate to smoke on the stairs and the other mounted before you come out of the carpark path around the corner onto Malop Street. Observations have shown that many people stop and finish their cigarette at this corner before heading out onto Malop Street as it is a sheltered location.

Other items addressed have been parking ticket receipts which people would litter as they came back to the carpark as there are no bins available. A bin was added next to the parking refund machine in the Officeworks entry and CFOB posters and litter information highlighted. This saw a decrease of 90% in parking tickets and receipts being found during audits.

Average Monthly Cigarette Abundance 2017-2020
Before and after butt bin installation



Bin your butt HERE





3.14 Wrathall Reserve Indented Head



Totals

Litter Audits: 47

Clean Ups: 3

Audit Items: 2028

Vol Hours: 160



This site is located at Wrathall Reserve in Indented Head. It is highly visited site during Summer by both locals and people staying in adjacent caravan parks. The land manager is Bellarine Bayside Foreshore Committee of Management who regularly clean and maintain the site.

The majority of litter collected was made up of cigarette butts. Smalls shards of glass lead to high amounts of glass and items associated with audits during 2018. Clean up have been conducted as part of CFOB Summer holiday activities.

Litter auditors: Volunteers

Clean ups: Volunteers, BCN staff

Observed causes of litter: This site sees peak litter during Summer holiday use, with cigarette butts making up the majority of the litter items collected.



Cigarette Butts
55%



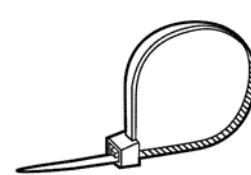
Other Metal
7%



Plastic Fragments
7%



Glass Bottles
6%



Hard Plastics
5%



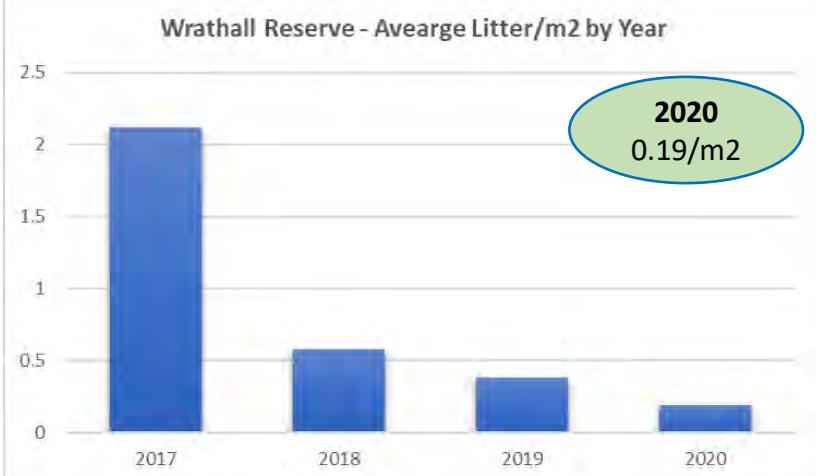
Wrathall Reserve Indented Head



Decrease of 91% in average litter abundance from 2017 to 2020 with an overall low litter abundance. Peak litter occurs during Summer holiday periods. Downwards trend from 2017 with a spike in Summer 2019.

Decrease in all 3 subsites:

- BBQ Shelter
- Boat Ramp
- Toilet Block

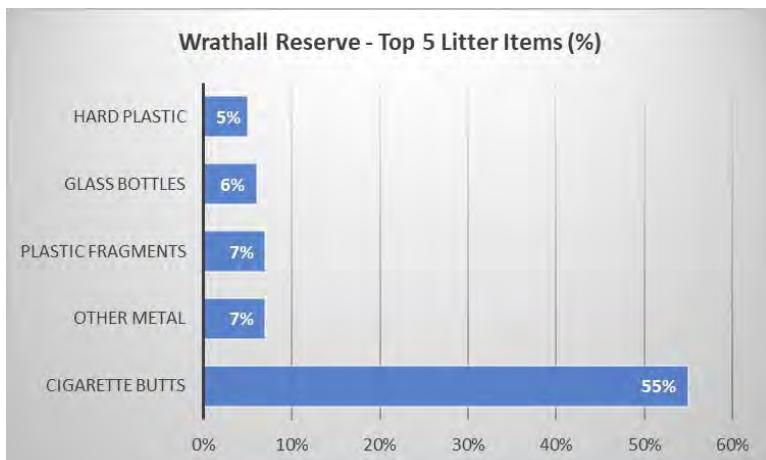
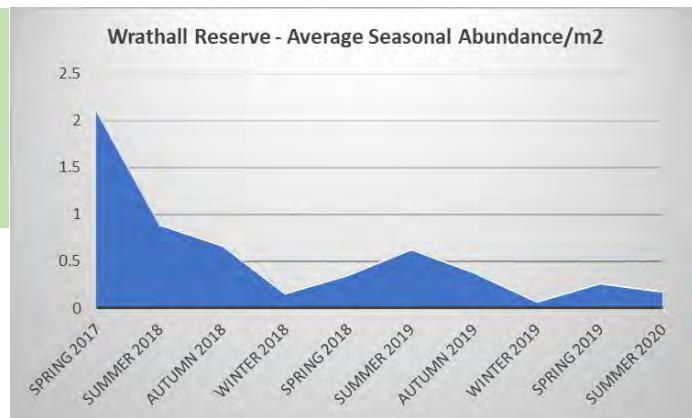


Recommendations:

- Summer/Winter monitoring
- Install CFOB LOTE signage
- Continue to provide school and community environmental education days



**Bellarine
Bayside**
Coastal Management





3.15 Cowies Creek Peacock Ave Norlane, Geelong



Totals

Litter Audits: 3

Clean Ups: 6

Items: ~3 x skip

Vol Hours: 420

Cowies Creek – Peacock Avenue is a newly established hotspot site which is located at the end of Peacock Avenue in Norlane. The street leading to this site hosts Northern Bay College as well as the Norlane West Scout Group Hall. This hotspot site has some high-quality riparian vegetation as well as being home to a population of Growling Grass Frog. The scout group monitoring and clean ups were established in 2019 through CFOB, along with a water quality monitoring through the CCMA River Detectives program. Joeys, Cubs and Scouts audit, clean up and undertake water quality once per term. There is also an informal 'friends of' group which BCN has been assisting to establish along with CoGG staff.

Litter auditors: Norlane West Scout Group and BCN staff

Clean ups: Norlane West Scout Group and Community

Observed causes of litter: Foot traffic passing across the bridge over the creek. Illegal hard rubbish dumping from nearby community and street litter washing down the drain adjacent to the foot bridge.



Aluminium Cans
13%



Plastic Bottles
8%



Soft Plastic
7%



Glass Bottle
7%



Plastic Bags
6%



Cowies Creek Peacock Ave Norlane



Due to the group being made of primary school children, the focus at this site is on litter clean ups and environmental education. Clean ups with groups of up to 60 children at one time mean that the litter is not fully audited and only the large items are recorded. Items such as cans and bottles are recorded, whilst the other rubbish is collected and disposed of. The city has provided skips for some of the these cleans so the large amount of waste collected can be extracted from the site. Most litter comes from the street drain, illegal hard rubbish dumping and student foot traffic.

Recommendations:

- Continue to support Norlane West Scouts
- Quarterly clean up/audit
- Link Northern Bay College to Cowies Creek through an environment day
- Support formalisation of Friends of Cowies Creek group
- Planting to restore riparian vegetation
- Install a frog hop information walk along the creek walking track
- Litter trap on drain

Keep Our Waterways Clean



Growing Grass Frog
(Rana taeniata)

Be a local hero
Put your rubbish in a bin
www.environmentbellarine.org.au

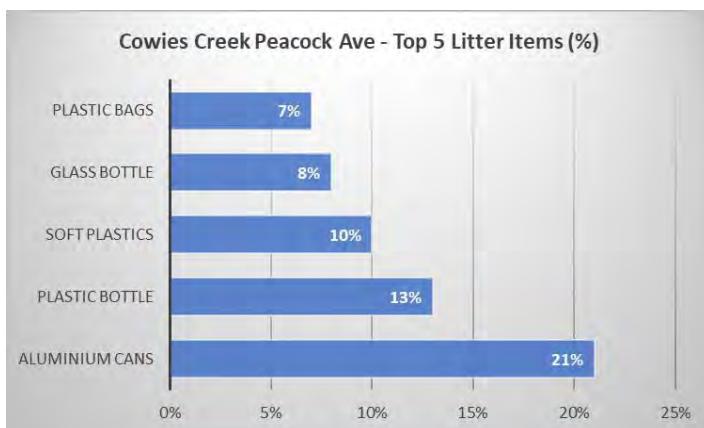
How Can I Help?

- ✓ Take your hard rubbish to the nearest waste recovery centre
- ✓ Put your rubbish in a bin
- ✓ Pick up your dog poo
- ✓ Wash your car on the lawn
- ✓ Join in community planting and clean up days

www.facebook.com/norlanewestscoutgroup [Norlane West Scout Group](#)

GEELONG Australian Government Environment Protection Authority

CITY OF GREATER
GEELONG





Caring For Our Bays

This report and the work outlined within has been made possible due to the following funding partners and supporters:

Port Phillip Bay Fund

Waste Services Partnership



Borough of Queenscliff



We would like to acknowledge all of the BCN network groups, businesses, students and community who dedicate their time and effort to maintaining and improving the environmental values of the Bellarine and Geelong region.