

Litter Hotspots Final Report

Organisation Name	Tangaroa Blue Foundation	
Project Title	Operation Clean Sweep – A regional strategy to reduce plastic resin pellet (PRP) pollution in Port Phillip Bay	
Project ID Number	CYBHP24	
Report prepared by	Heidi Taylor – Managing Director / Tangaroa Blue Foundation	
Amount of Hotspots Partnership funding received	\$100,243.60 \$102,875	Received to date 1/5/2017 Total Grant Amount
Organisation own contributions	Cash / In-kind	\$800 (EOFY15) In-kind \$2,320 (EOFY16) In-kind \$800 (EOFY 17) In-kind - TBF 24hrs x \$32.85/hr – engage industry and website updates TOTAL = \$3,920
Other contributions received	Cash / In-kind	\$16,530 (EOFY15) In-kind \$8,728 (EOFY16) In-kind \$5,015 (EOFY17) in-kind - 33hrs x \$30/hr = \$990 PPEC - 15hrs x \$51/hr = \$765 City of Kingston - \$720 = City of Wyndham - \$500 = IPW - \$2,040 = 40hrs x \$51/hr EPA Victoria TOTAL = \$30,273
TOTAL Project Value	\$102,857	\$34,193 In-kind

1. Project Activities

<p>Hotspot project location/s targeted (Include address, description &/or attach map if possible)</p>	<p>The Port Phillip Bay catchment has been targeted for this project.</p>
<p>Describe in point form the key project activities undertaken.</p>	<ul style="list-style-type: none"> - Engagement of plastics and logistics industry members – an additional 21 plastics and logistics industry members have been contacted and introduced to the Operation Clean Sweep program in this reporting period. - Operation Clean Sweep currently has the following signatories (7 companies, 19 factory sites, 1 industry body): <ol style="list-style-type: none"> 1. Dow Chemical (2 factory sites) 2. Qenos (4 factory sites) 3. Co-Ex Films (1 factory site) 4. LyondellBasell (1 factory site) 5. Innovia Films (1 factory site) 6. Visy Plastics (9 factory sites) 7. Australian Packaging Covenant (Industry body) 8. FNQ Plastics (1 factory site) - As of 01/05/2017 the Operation Clean Sweep manual has been downloaded 63 times: <ol style="list-style-type: none"> 1. Local Government (VIC) – 7 times 2. State Government (VIC, QLD, WA) – 9 times 3. NGO – 9 times 4. Other (industry association, students, research bodies) – 12 times 5. Plastics Industry Manufacturers – 22 times 6. Plastics Industry Suppliers – 3 times 7. Plastic Industry Transporters – 1 time - The PRP database was updated during the 2016-2017 year with samples from the Port Phillip Bay catchment being sorted and documented. 241 surveys were completed at 134 sites between August 2016 and April 2017. These included 83 factory sites, 25 beaches, 17 river sites and 9 stormwater drain/road sites. - A strong partnership continues to develop between TBF and the EPA, this will assist in promoting the program through compliance channels. - We provided metal placards and stickers to the Operation Clean Sweep signatories to help promote the program through their workplaces and supply chains. - We are in discussions with Chemistry Australia (formally PACIA) to take on a secretariat role for

	<p>Operation Clean Sweep into the future. They will make a decision on this at their social licence committee meeting to be held in May 2017.</p>
<p>Describe any additional activities undertaken not included in your project plan.</p>	<p>- We created an engagement video with the support of Co-Ex Films, the Western Australian Government's State NRM Program supported by Royalties for Regions. https://youtu.be/r_1ypl9tQZc This video showcased solutions to pellet loss at a Melbourne factory so other companies could see how easy this program could be adopted. The video is now on the www.opcleansweep.org.au website and YouTube and has 273 views.</p>
<p>What have been the highlights?</p>	<ul style="list-style-type: none"> - Receiving pledges to join Operation Clean Sweep industry members. - Having Operation Clean Sweep being promoted in both the Senate Inquiry Report and the draft Threat Abatement Plan for marine debris on vertebrate marine life highlighting the importance of this program at a national level.
<p>Are there any key lessons learnt both positive and negative?</p>	<ul style="list-style-type: none"> - Engagement time taken to reach decision makers in the industry – need to find channels to reach the decision makers. - Lack of compliance action from EPA and local government in regard to businesses that lose plastic resin pellets from their premises, even with sufficient evidence to investigate. - Some industry members have used the Operation Clean Sweep materials, but not signed up to the program, this means that the program has greater reach than we are able to document.

2. Achievement of Objectives

Your reference is Schedule 1: Project Plan Deliverables

Ob. #	Performance result	Key activities	Due	Status <i>Complete In Progress Not Started</i>	Issues / Comments <i>Include actions completed since inception/last report and next steps. Explain issues and steps taken to address them.</i>
1	MILESTONE 6 Submit Progress Report	>Develop Progress Report	15/08/16	Complete	
1	MILESTONE 7 Submit Year 3 Project Plan	>Develop Year 3 Project Plan >Invoice MWRRG 80% of Year 3 funding = \$10,453.60	15/08/16	Complete	
2, 3	Industry roll out of program	> Leverage current industry partners to consult with 20 additional industry members, with a goal to have them adopt OCS	31/12/16	Complete	Consultation with 21 additional companies with a goal of having them join up to OCS. This resulted in 4 companies taking the pledge and implementing OCS in their workplaces. We are still in discussion with another 6 of these companies for possible engagement.
2, 3	Industry roll out of program	> Engagement of third party delivery companies who transport PRPs – research the TWU and the ACTU – companies who are interested in environmental issues and may be able to help to spread the word	31/12/16	Complete	Engagement of two logistics companies. One of the companies provided a tour of their facility and were positive about OCS. To date neither company has signed up to OCS, however we are still communicating with them with the hope that they will sign up in the future. We are also leveraging both companies' customers who have signed up to OCS to encourage these logistics companies to also sign up to OCS.
3	Collection of stakeholder feedback	> Partner councils to conduct 2 site inspections within their boundaries to monitoring changes in PRP loss.	31/12/16	Complete	Local Laws officers from an outer south-western Melbourne council inspected two sites twice and one site received a clean-up notice for pellets on Council land (gutter & nature strip). Local laws officers from a south-eastern council conducted two inspections at a factory, one with the Tangaroa Blue project officer to observe plastic resin pellet loss.
3	Local law officer engagement in program	> To engage with 5 additional councils within the Port Phillip Bay Catchment	31/12/16	Complete	The following councils were introduced to the OCS program through a workshop presentation and received OCS stickers and links to the

		<p>and provide information and training on the plastic resin pellet issue and OCS program.</p> <ul style="list-style-type: none"> > Engage with Law Enforcement Officer Network to provide OCS information and training on the OCS program. > Additional councils to conduct 2 site inspections within their boundaries to identify industries who are losing pellet loss into the environment. 			<p>website: Greater Geelong, Bayside, Hobsons Bay, Port Phillip, Melbourne, Frankston, Bass Coast, Casey, Yarra Ranges and Hume.</p> <p>A list of Information/data of businesses that had been identified as have plastic resin pellets escaping from their premises was provided to the LEON network.</p> <p>We have solidified our relationship with the EPA and provided them with case studies and further evidence of sites that are impacted by pellets. This has resulted in EPA officers working with TBF to identify facilities who are losing pellets into the environment.</p> <p>Site inspections were conducted by Hobsons Bay Council and Parks Victoria.</p>
2, 3	Creation of Supply Chain Resources	<ul style="list-style-type: none"> > Develop collateral and resources that can be utilised by plastic resin pellet producers to promote the OCS program throughout their supply chain. > Send courtesy copy of draft collateral to MWRRG 	31/12/16	Complete	<p>We have produced metal placards for OCS members. The placard states that the company is a OCS partner and the goal of the program is zero pellet loss. This is to create a reminder for staff and a message for visitors that come to the company's premises. We also produced OCS member bumper stickers – these have also been distributed to the OCS members for placement on forklifts and other strategic locations, and also to EPA and council staff to introduce them to the program.</p> <p>Both designs were provided to MWRRG for approval before production.</p>
3, 4	Monitoring of project	<ul style="list-style-type: none"> > Data collected from sites in PPB on PRP pollution. > Analysis of all data collected since Dec 2014 from monitoring sites to measure success in reducing the 	1/02/17		<p>A dedicated PRP Access database was developed to record both site/survey information, but also communications and engagements with all stakeholders. This database will continue to be developed and kept</p>

		amount of PRPs released into Port Phillip Bay.			up to date as the OCS program expands nationally. Analysis was completed and maps developed to show results of monitoring done through this program. These are attached to this report.
	National Package	> Create a template package of the Australian Operation Clean Sweep program and release it Australia-wide to all stakeholders.	31/12/16	Complete	www.opcleansweep.org.au – already successfully engaged companies in QLD and NSW. Resources currently being used by EPA NSW and Department of Environment Regulation in WA.
1	MILESTONE 8 Submit Final Report	>Work with broader project team to develop Final Project Report to submit to MWRRG >Audit >Invoice MWRRG 20% funding = \$2,613.40	1/05/17	Complete	

Please report on any parts of your project not completed.	We see this as an ongoing project that Tangaroa Blue Foundation and Chemistry Australia will continue to develop. We have received a small amount of funding to roll the program out in WA, which will happen over the next 12 months.
Describe any current risks for the project.	N/A
Provide background information on issues or circumstances that could potentially delay future project activities.	N/A

Include evidence (as attachments) to demonstrate that you have completed the activities. (Examples could include publications, media, photos, flyers, agendas or minutes of meetings.)

List of attachments:

- 201704_Flyer/Agenda for City of Kingston Business Breakfast
- 201704_VLAA Member website banner and article
- 201703_Presentation that Steve McNaughton did at the SRP workshop in the City of Kingston
- 201703_Industry Update Magazine
- 201702_Newsletter from Australian Packaging Covenant
- 201702_City of Kingston Business Bulletin
- 201702_Sustainability Matters Magazine
- 201611_Doug Woodring from www.oceanrecov.org presented at the 2016 Plastic and Waste Conference in Melbourne and included a slide promoting Operation Clean Sweep Australia

Pre-program statistics or percentages if taken. (eg. litter rating/volume of litter/recyclables...)	Post program statistics or percentages ie. litter rating/volume of litter/recyclables if a measure taken at beginning of program
PRP Rating 5 = 18% of sites with a rating of 5	PRP Rating 5 = 3% of 240 surveys with a rating of 5 (08/16 – 04/17) PRP Rating 5 = 1% of 134 sites with a rating of 5 (08/16 – 04/17)
PRP Rating 4 = 21%	PRP Rating 4 = 11% of 240 surveys with a rating of 4 (08/16–04/17) PRP Rating 4 = 11% of 134 sites with a rating of 4 (08/16 – 04/17)
PRP Rating 3 = 24%	PRP Rating 3 = 23% of 240 surveys with a rating of 3 (08/16–04/17) PRP Rating 3 = 19% of 134 sites with a rating of 3 (08/16 – 04/17)
PRP Rating 2 = 18%	PRP Rating 2 = 26% of 240 surveys with a rating of 2 (08/16–04/17) PRP Rating 2 = 26% of 134 sites with a rating of 2 (08/16 – 04/17)
PRP Rating 1 = 21%	PRP Rating 1 = 37% of 240 surveys with a rating of 1 (08/16–04/17) PRP Rating 1 = 43% of 134 sites with a rating of 1 (08/16 – 04/17)

3. Project Community Activities and Impacts

Number and/or type of information/resources produced or activities completed (eg. booklets, guides, PowerPoint presentations, CD's, webpages)		Item	Number produced / completed
		Operation Clean Sweep metal placards	40
		Operation Clean Sweep bumper stickers	2000
		PowerPoint slide for presentations	1
		Plastic Resin Pellet Access Database	1
		Operation Clean Sweep engagement video	1
Number of training events held	7	Total number of participants (Estimate)	200
Number of community events held (eg. clean-ups)	1	Total number of participants (Estimate)	10
Number of events, festivals where project had a presence (eg. stall, display, street theatre)	1	Total number of participants (Estimate)	20
List key Project Partners that have contributed /participated in this project		Port Phillip EcoCentre, Werribee River Association, Western Regional Environment Centre, Victorian Litter Action Alliance, City of Kingston, Wyndham City Council, EPA, Chemistry Australia (formerly PACIA), Law Enforcement Officer Network.	

***Please include/attach any sample photos from events held, publications etc.**

4. Hotspot Data

Reporting on data to date will help highlight the need for any modifications to your project delivery. It might also be useful to include a site map or photos to give this information more context.

Total amount of litter removed from all project hotspot site/s: N/A Litres

Hotspot Site / Identifier	Hotshot Rating	Date	Hotshot Rating	Date	Hotshot Rating	Date	Hotshot Rating	Date	Hotshot Rating	Date
Please see attached Excel Sheet										
(Insert rows/columns as needed)										

Note: A chart of the above showing the hotshot rating of sites over time would also be useful.

Use LLMT (or agreed tool) to generate key performance indicator data and or charts to demonstrate outcome performance (as per project plan)

Where possible compare baseline data with measurements taken after project interventions.

We utilised the Plastic Resin Pellets Rating Tool and Data Sheet to monitor plastic resin pellets at sites including factories, roads, stormwater drains, creeks/rivers and coastal locations. This data has been compiled into a dedicated PRP Access Database.

Highlight any key findings or issues worth exploring further. For example, were any of the interventions particularly effective at influencing disposal behaviour? Do you need to modify any project activities in the face of learning so far?

It is vital to have industry champions to engage other industry members, as well as compliance partners (e.g. Local Laws and EPA) to ensure the greatest chance of uptake of voluntary industry programs.

5. Project Impact on Litter activities. (Please tick the appropriate box)

This project helped to:	Not relevant to this project	No difference	Too early to tell	A little eg. limited, short term change	Significant development eg. sustained improvement
Identify and monitor key Litter Hotspot/s to evaluate issues and develop strategic responses			✓	✓	
Undertake litter analysis, ie. audits or assessment of litter/bins and traps					✓
Establish/support Local Litter Prevention Task Force Groups for effective project liaison and implementation	✓				
Engage the community / business / schools in litter prevention / clean- up activities					✓
Develop project partnerships with business or industry					✓
Improve community awareness and participation regarding litter and litter hotspots				✓	
Improve the capacity of key stakeholders through either key messages, project resources or education and training					✓
Provide litter prevention and education officers with training, mentoring and peer support					✓
Improve bin infrastructure or changes in litter collection responses	✓				
Improve amenity of hotspot site	✓				
Reduce litter			✓	✓	

6. Project PR & Marketing

Media coverage and/or other promotional material: How did you promote your project and the sponsorship which you received within local and other media? **Attach** scanned copies of any print media or promotional material and include screen dumps of social media or web pages below.

Date	Publication title	Website / Social Media / Article /Event title	Content description/list of VIP's/No. of attendees/scre en dump
28/2/17	Australian Packaging Covenant Newsletter	Newsletter http://australianpackagingcovenant.cmail19.com/t/ViewEmail/j/2E56811B457364B0/A6243BEDE03502DD0CC2E775D3CF5869	Article announcing that the Australian Packaging Covenant had signed up to Operation Clean Sweep.
Feb 2017	City of Kingston Business Bulletin	Newsletter http://www.kingston.vic.gov.au/files/assets/public/business/bulletin/13803-kingston-business-bulletin-jan-2017_fa_web.pdf	Article on Operation Clean Sweep
16/3/17	Industry Update	Magazine http://www.industryupdate.com.au/article/australian-plastics-industry-signs-reduce-pellet-loss	Article on Operation Clean Sweep
15/2/17	Sustainability Matters	Magazine http://www.sustainabilitymatters.net.au/content/waste/news/operation-clean-sweep-to-properly-manage-our-plastic-pellets-1474272439	Article on Operation Clean Sweep
April 2017	VLAA Website	Banner on VLAA website with link to OCS website and further information	Operation Clean Sweep was promoted on the

			<p>homepage rotating banner with a link to further information during the month of April</p>
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Are there any variances not in line with agreed project budgeting? If yes please outline.

All categories remained the same, however we did find it necessary to move some funding from one category to the next as this project evolved. Grant variations were submitted and approved to roll over funding and extend the project throughout the life of this grant. Please note that the financials for this grant are also currently undergoing an external audit. This paperwork will be provided as soon as we receive it back which is expected at the end of May 2017.

8. Additional information

Please include any other information that can help tell your story. Photos or quotes from people involved in the project or community are especially helpful.

1. Draft Threat Abatement Plan on the impacts of marine debris on vertebrate wildlife submission from Chemistry Australia 2017:
*"The Australian chemistry industry believes that plastics do not belong in the world's oceans and should not be littered. Plastics should be responsibly used, reused, recycled and finally recovered for their energy value.
 Prevention of plastic litter in the marine environment requires a multi-pronged, multi-stakeholder approach including product stewardship, improved waste management, improved recycling and recovery, and education to drive improved behaviours.
 The industry is committed to action that will prevent plastic marine litter, and is a founding partner to:*
 - the **global Marine Litter Solutions** program
 - the **Australian Operation Clean Sweep** initiative, and
 - the **Australian Packaging Covenant**."
2. Co-Ex Films owner Steve McNaughton's comments on Operation Clean Sweep <http://www.opcleansweep.org.au/partners/co-ex-films>
3. Quote from David Mossop, Program Coordinator – Citizen Science – EPA Victoria: *"Tangaroa Blue have successfully engaged with EPA Victoria since March 2015, with the aim of stemming the loss of plastic resin pellets to the environment. Tangaroa Blue have done an exceptional job as national leaders in this space and the implementation of Operation Clean Sweep in the Australian context has been very significant.*

EPA Victoria is currently working on major reform projects following the 2015 'Independent Inquiry into EPA Victoria' (2015) and subsequent Victorian Government response (2017). Of particular relevance is Recommendation 12.1 which involves introducing a general preventative duty as part of an overhaul of the Environment Protection Act 1970. A key aim of this approach is to deliver 'increased clarity and guidance for industry about their environment protection responsibilities'. Best practice guidelines and codes of practice are likely to play an important role. Operation Clean Sweep offers an internationally tested and developed best practice model that Tangaroa Blue have successfully implemented at a number of facilities.

Additionally, Tangaroa Blue are developing a valuable baseline data set for the current plastic resin pellet (PRP) problem which provides important evidence on potential sources and extent PRPs in the Melbourne area. EPA looks forward to continuing to partner with Tangaroa Blue to deliver improved environmental outcomes in the PRP space."

4. Teleconference with the Australian Packaging Covenant: The APC will work on integrating Operation Clean Sweep into their member's annual Action Plans and will be including the program when their new website goes live.