



Eliminating Plastic from the River Mersey

A PLASTIC FREE MERSEY PROGRAMME PRESENTED BY:

MIKE DUDDY – MERSEY RIVERS TRUST

TONI OLSEN – THAMES21

SARAH DENNEY - LYONDELLBASELL





Source to Sea



What we do?



Delivering Projects



Engagement



Citizen Science



Workshops & Conferences

Urban Issues



- Pollution
- Litter
- Sediment
- Flood risk



The Plastic Problem

- A New Modern Form Of Pollution
- Unrecorded until Manchester University Study 2015
- 500,000 micro particles per m²
- Unrecorded amounts of macro plastics
- Unrecorded pathways of contamination



River Guardians



Ongoing monitoring with community Citizen Science volunteers



Regular Community Events across Greater Manchester, Merseyside and Cheshire



Creating A Better Place For People and Nature



As well as the serious business of improving the environment – we make sure our events are fun too



Thames21

Environmental charity that looks after London's waterways, with a focus on engaging local volunteers.



Thames21 connects people with rivers by putting healthy rivers back at the heart of everyday life. We improve and restore rivers, educate and empower the community and campaign for positive change for the good of people and the environment.



Thames River Watch

An example of a Thames21's award winning citizen science programme.



Aims of Plastic Free Mersey Programme

Survey & Remove Plastic

Education & Engagement



Technical Overview

Research topic:

- Macro plastic distribution in rivers with analysis of the linkage to macro particle formation. **NO** micro particles.

University participation

- Professor Jamie Woodward & team (Manchester University)



What is citizen science & why is it important?

- Process of involving volunteers/ general public in the gathering of scientific evidence and data.
- So much more than just the data: simultaneously achieves learning and knowledge making.
- Encourages the fostering of environmental citizenship.
- Benefits all involved: scientists, project managers, volunteers and the wider community.
- Multiple impacts across different themes: environment, society, governance, economy, science & technology.



LyondellBasell is a strong, global company delivering outstanding performance

LEADING⁽¹⁾



Producer of **polyethylene** in Europe
Producer of **polypropylene** in North America and Europe
Producer of **oxyfuels** in North America and Europe
Producer of **polypropylene compounds** globally
Licensor of **polyolefin technologies** globally

DIVERSE



Many of our **materials** go into products that people use every day, such as food packaging, electronics, children's toys and fuels.

GLOBAL



Every day, our **employees** work around the clock to safely **advance solutions** to our world's biggest challenges.

GROWING



Increased U.S. ethylene capacity by **23%** since 2012
Startup in 1Q20 of our **Hyperzone HDPE** plant
Building the world's largest **PO/TBA plant**
Expanding in China with **integrated cracker JV** and **PO/SM JV**

One of the world's largest plastics, chemical and refining companies producing products and materials key to advancing solutions to modern challenges

(1) Source: LyondellBasell and IHS Markit. Note: Product rankings are as of December 31, 2019. The company has signed a definitive agreement with Bora to build an integrated cracker and an MoU with Sinopec to develop a second PO/SM JV, both in China.

Our products are advancing a range of solutions in nearly every geography and sector of the economy



Food safety & access

Food packaging and films that improve freshness, portability and extend shelf-life



Sustainable & modern living

Materials that form components used in solar panels, wind turbines, children's toys, cosmetics, leak- and shatter-proof containers



Cleaner air & fuel efficiency

Stronger, lighter plastics support increased fuel efficiency



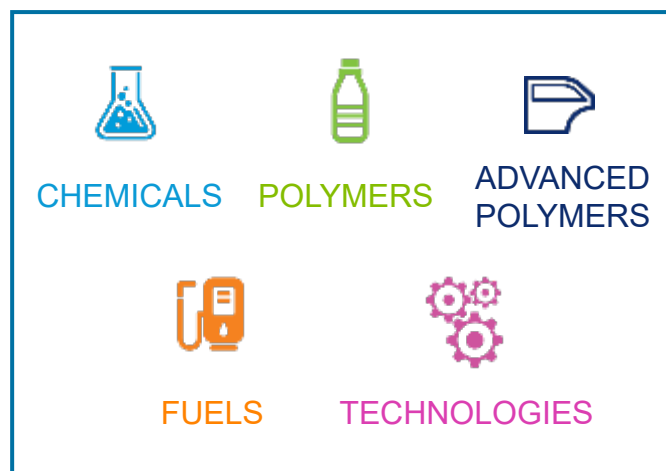
Clean water

Stronger, longer-lasting pipes used in municipal water systems and key elements used in water filtration systems



Quality healthcare

Improved medical supplies such as synthetic latex gloves, hand sanitizers, biohazard bags and pill coatings



Agricultural efficiency

Lighter machinery, crop protection and soil conditioning used to be more efficient in agroprocessing

An increasing challenge for industry: litter and plastic waste



Programme Structure

■ Steering Committee

- Selected major donors plus:



■ Project Supporters



■ Anchor project through the support companies along the supply chain:

- Polymer producers
- Convertors
- Recyclers
- Brand owners
- Infrastructure & service providers

■ Potential to be a pilot project for other rivers & regions

Programme Membership

■ Benefits for member companies:

- Increased profile and engagement within local community
- Supporting scientific research, with potential tailoring to company interests
- Employee (and family) volunteering (at least 2 clean-ups/month)
- Collaboration with other value chain members

■ Information for potential members:

- Programme Introduction
- Membership Framework
- Membership Agreement
- Steering Team Charter
- Communications Protocol



Membership Framework

Title	General Description of involvement (can be tailored as required)	Contribution requested:
Programme Shaper	• Possibility of position in the Project Steering Committee, helping to define, develop and monitor the programme. • Potential to gather organisation-specific information • Training and organisation for staff volunteering opportunities. • Early notification of developing project results and findings. • Priority acknowledgement in media releases, project PR and Report. • Website listing	£20k per year for two years • Quarterly Steering Team attendance • Support for communication/ media events • Employee participation in clean-up events • Focal point designation
Programme Builder	• Potential to gather organisation-specific information • Training and organisation for staff volunteering opportunities. • Early briefings on project progress. • Connection to constructive programme messaging. • Website listing	£10k per year for two years • Support for communication/media events • Employee participation in clean-up events • Focal point designation
Programme Advocate (Entry Level for Large Companies)	• Training and organisation for staff volunteering opportunities. • Early briefings on project progress. • Connection to constructive programme messaging. • Website listing	£5k per year for two years • Support for communication/media events • Employee participation in clean-up events
Programme Member (Entry Level for SMEs)	• Training and organisation for staff volunteering opportunities. • Early briefings on project progress • Connection to constructive programme messaging. • Website listing	£1k per year for two years • Employee participation in clean-up events

Project Timeline

- **Programme envisaged to run over 2 years, with review after one year**
 - Thames21 programme management funded via members

Current activities

- Discussions with potential members
- Finalise Steering Committee membership
- Finalise communications planning

Medium term

- Working group meeting
- Publicly launch project (April/May)
- Train volunteers
- Increase recruitment and membership



Interested?

Contact:

- Chris Coode (Deputy Chief Executive, Thames21): chris.coode@thames21.org.uk
- Andrea Brown (Sustainability Director, LYB): andrea.brown@lyb.com
- Adela Putinelu (Senior Sustainability Issues Executive): aputinelu@bpf.co.uk