



Dacorum Environmental Forum  
Full Meeting Thursday 15/09/2022

MINUTES

Attendance (Z= via Zoom)

Name	Organisation
Gruff Edwards	Chair DEF
Steve Wilson	Vice Chair DEF
Adrian Whyte	Plastics Europe
William Wyatt-Lowe	DEF
Cllr Ron Tindall	DBC and HCC
Cllr Brian Patterson	Tring Town Council
Cllr. ColetteWyatt-Lowe(Z)	DBC (Strategic Planning and Environment O&S Ctte.), HCC
Paul Harris	DEF

Meeting started at 7:30pm

1. **Apologies etc.**

Robin Bromham, Hemel Resident

Paul De Hoest, Berkhamsted TC

Mike Ridley, DEF and Friends of Halsey Field

Chris Ridley, DEF and Friends of Halsey Field

Katie Tyssen, DEF and Friends of Halsey Field

Sherief Hassan, Hemel Resident

Cllr Graham Barrett, DBC Portfolio Holder for Neighbourhood Services (now includes Environmental Services.)

**GE** suggested that on DEF's behalf he place a message of condolence on the royal.uk website with an acknowledgement of the new King's history of championing environmental causes while Prince of Wales and the hope that this will be carried forward by the successor to that title. This was approved by those present.

2. **Minutes of DEF May 12th meeting and matters arising**

*Updates on Halsey Field, LA3 Master Plan and Hemel Garden Communities/New Local Plan had been included in the text of the agenda E-mail or attached to the reminder E-mail.*

## **New Local Plan and Hemel Garden Communities**

Comments were made regarding the presentation by DBC Assistant Director for Planning Alex Robinson, on strategies to protect the Chiltern Beechwoods Special Area of Conservation (Ashridge) from the effects of the large increase in population envisaged under the draft New Local Plan, in particular the projects minuted as "SANG - Suitable Alternative Natural Greenspace" and "Gateway Solution" (move current attractions off site.)

**WW-L** contrasted the objective of making Ashridge less of a draw with the aspirations of the Hemel Place Board that he attends on behalf of DEF, which included "branding" Dacorum, with its attractive surrounding countryside as a main selling point. He had held discussions with David Kirk, Chairman of the Box Moor Trust, who had recently joined the Hemel Place Board and who remained keen for the Trust to take over more sites for appropriate management in the interests of wildlife and the community.

**PH** referred to reports last year that The Chilterns Area of Outstanding Natural Beauty (AONB) could be given National Park status as part of a Government review of national parks in England.

**SW** referred to last year's announcement by Natural England that the Chilterns AONB was to be considered for boundary expansion, one possible extension being southwards from Water End along the Gade Valley towards the existing boundary of Hemel Hempstead.

### **3. Plastics and the low-carbon Circular Economy**

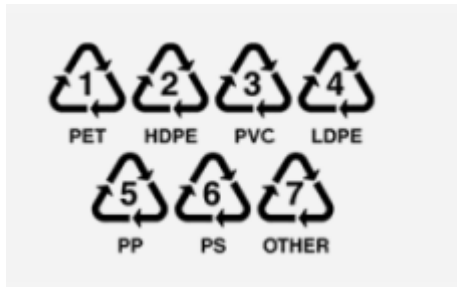
**GE** welcomed and introduced Adrian Whyte, Resource Efficiency Senior Manager for Plastics Europe to present on this topic.

**SW** took the chair from this point.

**AW** started by saying that "Plastics" was an emotional topic because of justifiable concerns about the way plastics are littered and impact our environment. A major part of the solution to littering was a change to our littering and polluting behaviour. However, more work was required in understanding the reasons for this behaviour, as current initiatives had failed to bring about the required behavioural changes, which were needed not just for plastics, even though they were a very visible part of the littering problem, but for all discarded articles. People needed to consider that each item discarded as litter could have been recovered if instead it had been disposed of responsibly and thus could have helped to offset climate change.

Currently most plastics are produced from crude oil, "buried carbon" from when the world was much older. As renewable power generation increases the rate of oil extraction will slow down, with a reduction in the by-product naphtha that is used to produce plastics. This is why we are already seeing the use of new feedstocks for plastics production, e.g. carbon dioxide, bagasse (a waste from the sugar industry), tall oil (a waste from the paper industry), and products from fermentation.

We are all familiar with the symbols (Polymer / Resin Identification Codes) *see below* that have a triangle with a number, and sometimes an alphabetic code underneath. This symbol identifies the type of plastic but is not a guarantee of recyclability, and so further reference should be made to the pack label to see if it is recyclable.



The main categories, with their usual acronyms or alternative names and some common uses are:

Number	Type	Typical Uses
1	Polyethylene Terephthalate (PET or PETE or Polyester)	Carbonated drinks bottles, plastic film, microwavable packaging.
2	High-Density Polyethylene (HDPE)	Milk bottles and caps, pots and trays, thin gauge carrier bags, fresh produce bags.
3	Polyvinyl Chloride (PVC – U)	Plumbing pipes and guttering, shower curtains, window frames, flooring construction, transport, electrical and medical applications. Wire insulation.
4	Low-Density Polyethylene (LDPE)	Sacks, carrier bags, fresh produce and long-life bags.
5	Polypropylene (PP)	Bottle caps, drinking straws, freezer food boxes, appliances, car bumpers, pressure pipes.
6	Polystyrene (PS)	Construction, insulation, packaging foam, food containers, plastic tableware, disposable cups, plates, cutlery.
7	Others including ABS (Acrylonitrile Butadiene Styrene) and PTFE (Polytetrafluoroethylene)	Seals, gaskets, valves, wire insulation, bearings, surface coatings.

There is a further distinction with plastics, that is based on their processing properties - thermosetting plastics and thermoplastics - as they behave differently when exposed to heat;

**Thermoplastics** such as PET, PP, PS and PVC melt under heat while thermoset plastics such as PTFE retain their form and stay solid. Because of this thermoplastics are ideal for applications that use recycled materials.

**Thermosetting** plastics, in contrast, are able to withstand high temperatures without losing their shape, making them more durable and not generally suited for mechanical recycling however new recycling technologies that convert them back into feedstock to produce new plastics are well advanced.

The widespread use of plastics is due to their being mouldable, lightweight, rigid or flexible, breathable or non-breathable, chemically stable, etc. Despite the calls by some environmentalists for there to be a single, standard 100% recyclable plastic the different characteristics of each type of plastic dictate its uses, so there is no one-size-fits-all plastic as for instance the requirements for an aircraft component are very different to those for a milk bottle.

Tetrapak is made up of multiple layers of polyethylene, paperboard and aluminium that in combination make it more difficult to recycle, so it is only processed in a very few facilities. *In Dacorum it is accepted in the blue-lid recycling bins.*

Most thermoformed plastics are 100% recyclable. *Thermoforming is a manufacturing process where a plastic sheet is heated to a pliable forming temperature, formed to a specific shape in a mould, and trimmed to create a usable product.* In the EU, plastics producers have called for a mandatory recycled content target for all plastics packaging of 30% by 2030 to offset the use of fossil feedstocks.

The fraction of crude oil that is the main feedstock for plastic production is naphtha, which constitutes 3% of crude oil (typically a further 3% of oil is used in the conversion process). Before the expansion of the plastics industry naphtha was wasted by being burnt off at the refinery. The electrification of production methods for plastic is reducing the industry's carbon footprint, with companies such as BASF committing to a 25% reduction of Greenhouse Gases for plastics production by 2030 through the use of renewable energy. Over 60,000 products and materials use oil for their production, including pharmaceutical products. The trend for the future will be to use waste products from agriculture and other industries, biogas, waste from fermentation, or carbon dioxide from the air or from emissions as feedstock for both industries.

**AR** handed round some plastic containers marked with bar codes that showed up under ultraviolet light, part of a trial that could lead to changes in methods of sorting for recycling or even to financial incentives to consumers to use the correct recycling collection points.

Two things he had observed in the course of his work and interaction with colleagues encouraged him about the future, namely the enthusiasm displayed by the new generation of scientists to mitigate the global problems caused by plastic wastes, and the growing trend towards cross-disciplinary work, in particular that between materials scientists and social scientists.

**SW** then invited questions and comments.

**WW-L** asked whether there were recyclable alternatives to PVC Clingfilm.

**AW** Clingfilm made from LDPE can in theory be recycled. However the thinness of Clingfilm and possible contamination of food by its use may pose a problem for certain recycling streams. LDPE Clingfilm is potentially reusable and with other soft plastics is collected for recycling at the front of most large food retailers.

**WW-L** asked whether plastic food storage boxes for freezers were microwaveable.

**AW** The area of food contact is a highly regulated one from a safety perspective. Plastic food boxes made of 100% polypropylene are microwave safe.

**RT** asked whether there was any research evidence on plastics that could biodegrade without releasing microplastics into rivers, oceans etc.

**AW** said that it varied between types of plastic. "Biodegradable" plastics have different requirements for their end-of-life management, e.g. some require industrial composting systems in order to degrade completely. Plastics that are not fully biodegradable in the environment and discharged into watercourses are the principal component of global microplastic pollution. The most reliable way for a consumer to prevent adding to such pollution is to check whether packaging is suitable for home composting or for industrial composting along with food waste, and to prevent littering

**SW** asked what were the issues that motivated change towards carbon neutrality and less pollution in the plastics and associated industries.

**AR** listed the top three issues as Reputational Damage (*avoidance*), Material Scarcity and Legislation.

**PH** said that Legislation was the key. Industry would not implement substantial change until forced by law to do so.

**RT** asked whether most politicians had "got it" on environmental issues

**AW** said that from his experience of Parliamentary Committees etc. that he had been called to address they had a good understanding. The challenge was that many politicians did not have a science background, and this was sometimes in evidence from the type of questions he was asked. In such instances it was important to inform clearly and to provide robust evidence.

**BP** asked whether it would be possible to recover plastics, including microplastics, from the oceans.

**AW** No, it would cause too much damage and disturbance and require too much energy. We must seek to "turn the tap off" on the flow of plastics and other materials into our environment. Some recently discovered bacteria that could decompose plastics offered a ray of hope that plastics may ultimately be broken down in the environment but evidence was still being gathered. That said, research into naturally occurring bacteria that could recycle PET was already taking place.

**BP** asked what would be the most useful message for his Town Council to give out to its citizens via its web site regarding what they could do to combat the problems caused by plastic waste.

**AW** said that at the top of the list should be, "Do your part to fight climate change", "Don't litter" and "Do recycle, in order to save energy and the use of virgin materials."

**AW** thanked participants and praised the quality of questions that they had posed.

#### **4. Any Other Business**

**SW** said that the DEF Water Group's most recent meeting was held on 22<sup>nd</sup> August (*The minutes were sent out with the Agenda E-mail for the meeting being minuted here.*) A further meeting of the Water Group will be held at 2pm on Oct 4<sup>th</sup> at the Box Moor Trust offices to see the details of the Grand Union Canal/Severn Trent Water Transfer Scheme which will terminate near Berkhamsted. Anyone wishing to attend should contact him or Michael Heylin, secretary of the Colne Valley Fisheries Consultative.

Remaining Dates for 2022:

Steering Group: 4th Oct.

Main: 17th Nov.

The date for the main meeting has been booked at the fire station assuming that their Meeting Room will continue to be available.