



# TAY VIEWS

A PUBLICATION BY THE TAY ESTUARY FORUM: PROMOTING THE WISE AND SUSTAINABLE USE OF THE TAY ESTUARY AND ITS ADJACENT COASTLINE **ISSUE 42 Spring 2016**

Hi all,

This year's TEF Annual Conference held on Friday 22<sup>nd</sup> April at West Park Conference Centre in Dundee. It was a great turn-out with some fantastic speakers, under the theme of *Seascope* and we thank all for taking part. Our report can be read in Item 4 and a new TEF Occasional Paper on Seascope of the Tay and Forth Estuaries can be read on our website. Plenty of events are coming up in the warmer months, e.g. Perth & Kinross Archaeology month (Item 5). We also draw your attention to an event to discuss the future of marine planning in Scotland, Sea Scotland, at Discovery Quay in June (see below). Please let us know of any local initiatives you are taking part in, such as beach cleans (Item 2) and photos are always welcome!

Best wishes, Laura (Project Officer)

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Join **150 delegates** for Scotland-focussed dialogue and knowledge exchange to support a progressive approach to marine planning.

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### TALKS AND PRESENTATIONS...

from leading practitioners and experts in the field of marine planning, including: **Charles Ehler** (Ocean Visions Consulting) and **Jeff Ardron** (Commonwealth Secretariat)

### WORKSHOPS...

on cross-cutting marine planning issues, such as **public engagement** and **seafloor integrity**

### SOCIAL AND NETWORKING...

Including a drinks reception on board the RRS **Discovery** and conference dinner

### SPONSORSHIP OPPORTUNITIES...

to showcase your organisation and your work

>> PLUS Interact via dedicated **#SeaScot16** conference **EventMobi** app

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TEF Conference 2016. L. Booth

## Press Release

### **2 Are we bottling out of binning when it comes to drinking on the go? Latest beach litter figures strengthen case for bottle deposit return schemes around UK**

Over 8,000 plastic bottles were found on UK beaches during just one weekend, according to the latest beach litter figures from the Marine Conservation Society (MCS) published today.

On average, 99 bottles were picked up along every kilometre cleaned at 340 beaches from Orkney to the Channel Islands during the MCS Great British Beach Clean last September. It's estimated that plastic bottles could take up to 500 years to break down once in our seas.

The charity's report, also reveals a shocking 34% rise in beach litter overall between 2014 and 2015, a record breaking number of volunteers taking part – just over 6,000, and the largest amount of litter found per kilometre – a staggering 3,298 pieces.

MCS' beachcleaning work is supported by players of the Peoples Postcode Lottery, enabling teams of volunteers to clean up huge swathes of the beaches, and carefully record the litter they collect from a 100 metre stretch during each clean. This allows MCS to build up a picture of the state of our beaches by comparing those 100metre litter levels year on year.

All the home countries saw an increase in litter, except Wales, where litter levels dropped after a record rise last year – however in the in the last decade, average litter levels on Welsh beaches have increased by 51%.

There was a big percentage rise in most drinks containers, found on beaches between 2014 and 2015 – plastic drinks bottles increased by over 43%, metal drinks cans by almost 29%, and - drinks container caps and lids were up by over 41%. Only glass bottles went down and that was only by less than 1%.

The figures highlight an issue that UK and devolved governments are now being asked to consider – deposit return systems.

“There have been increases in the number of plastic bottles found on beaches in England, Scotland, Channel Islands, and Northern Ireland”, says Lauren Eyles, MCS Beachwatch Manager. “Only Wales has bucked the trend in 2015 but that's almost certainly as a result of very high levels in 2014, where more bottles were found on Welsh beaches than anywhere else. The bottles we find on beaches are either dropped directly onto the beach, blown from land or sea, or end up there via rivers. The more we use as a nation, the more we'll see ending up on our shores.”

Plastic bottles on beaches rose by 6.3% in the Channel Islands, 57.2% in England, 21.3% in Scotland and a whopping 235.3% in Northern Ireland. In Wales they dropped by 39.4 % but that's in line with the overall drop in the country's litter levels – even so, there were still 103 plastic bottles found per km cleaned, which is higher than the national average.

In recent years plastic bottles have become a lifestyle accessory. As the need to keep hydrated has been acknowledged as one of the keys to good health, more and more of us are buying bottles of water on the go, resulting in more needing to be binned. But is there a better way of ensuring they don't reach our beaches?

Lauren Eyles says: "Deposit Return Systems (DRS) are nothing new. Lots of people will remember taking pop bottles back to the shop and up until last year the makers of Irn-Bru were returning 30p on glass bottles. Currently DRS schemes run successfully in Germany, Denmark, and some states in Australia and the USA. Studies have shown that a scheme can reduce the amount of littered drink containers, lead to more recycling and contribute to the circular economy – where resources are used again and again to extract maximum value. The schemes put a surcharge on drinks containers and when they're returned – avoiding pollution – the surcharge is refunded."

MCS says the introduction of DRS on all single use drinks containers – plastic, aluminium and glass - will see a massive increase in recycling and a change in people's behaviour from simply throwing items away. Deposit Return Systems give value to items often regarded as having zero worth and so are disposed of irresponsibly

In Scotland, MCS is a founding partner of the 'Have you got the bottle' campaign led by the Association for the Protection of Rural Scotland (APRS). "We're confident that evidence from other countries and a successful trial at Heriot-Watt University shows that a Scotland-wide roll-out of a DRS would lead to reduction in the number of drinks containers that blight our beaches," says Calum Duncan, MCS Head of Conservation in Scotland. "A survey for APRS showed that 78.8% backed a DRS for Scotland. With countries like Germany, where DRS was introduced a decade ago, recycling near to 99% of drinks containers, it's not difficult to see why support is growing for this proven system."

In Wales, MCS is fully behind the introduction of a DRS for the country. "People in Wales have shown they support environmental initiatives such as the carrier bag charge and general recycling. We think they'll also get behind a deposit return system for drinks containers, given the high number of bottles we found on Welsh beaches – 875 bottles from 8.5km of coastline. We want to see an action on DRS in forthcoming election manifestos." says Gill Bell, MCS Head of Conservation Wales.

MCS says it would like to see Defra and the Department for Communities and Local Government come into line with Scotland and explore the potential benefits of introducing a DRS system. "A coordinated UK-wide system would have an even greater impact on litter levels. There's clearly an appetite for it in Wales and Scotland, but it seems Westminster is hanging fire – just like it did with the single use carrier bag charge," says Lauren Eyles.

Head of Charities for People's Postcode Lottery, Clara Govier, said: "Players of People's Postcode Lottery will be glad to know the money they raise is helping to make our beaches cleaner."

**Selfridges** kindly provided support for the Great British Beach Clean through Project Ocean, its long-term partnership with the Zoological Society of London. Last year, Selfridges removed all single-use plastic water bottles from its stores, amounting to approximately 400,000 bottles a year.

### 3. Scotland's National Marine Plan interactive (NMPi) continues to grow and evolve

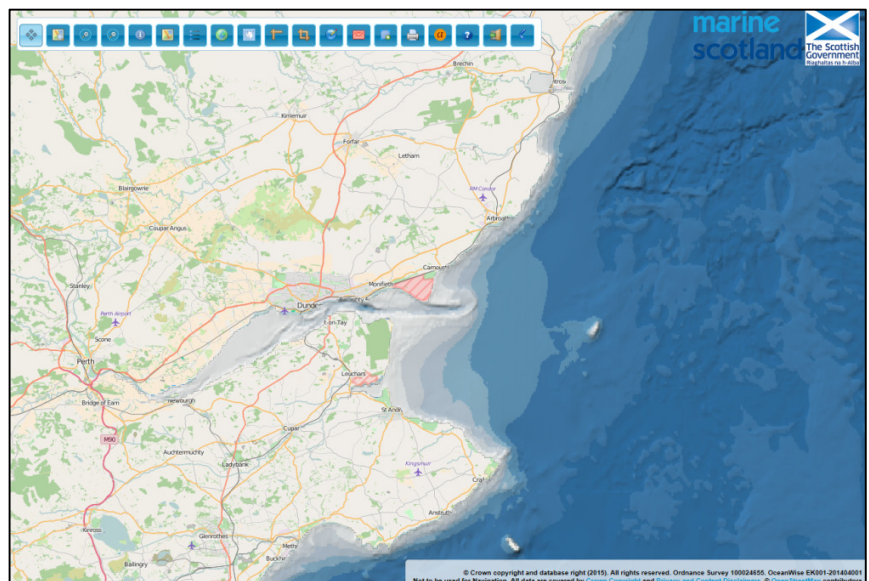
[NMPi](#) is Marine Scotland's on-line mapping portal to make spatial data and information available to all as our new marine planning responsibilities are implemented.

Recently the latest phase in NMPi's functionality development has been deployed. New layers are continually becoming available. But it is not all about increasing the layer count, that isn't necessarily easy for the end user. Our latest functionality includes 'time aware' layers being added. This allows users to see a time series of data in one layer (rather than multiple layers) and animate the movement from one period to another (usually yearly). Layer names will include such terms as 'since' or '2013-2014' in their title to indicate the function. Users can access it by 'right clicking' on the layer name in the Layer Control Box. The layers including time aware data will increase over time but so far include:

- Maritime casualties since 2005
- Marine strandings data 2013-2014 (cetaceans, seals, sharks, turtles)
- Keep Scotland Beautiful - Blue Flag and Seaside Awards since 2012

Users have asked if the various screen control boxes can be hidden to facilitate cleaner screen shots. There are now minimising buttons for all control boxes and the ability to hide the main tool bar (by clicking on the far right icon on it).

The main tool bar now also includes:



**Screenshot from NMPi showing TEF region**

- Spatial query function that allows the user to draw a polygon of interest and identify the layers available for it. These can then be added to your layer control.
- Draw circle based on a user input radius.
- Zoom in and out.
- Print map option. External WMS feeds can also now be printed but only at A4 size and the printed map legend now appears on a separate page.
- Submit Fault Report / Comment button

The data input tool bar (registered users only) now has the ability to add points by a lat / long (three format) input.

We are working with others to improve data flow to NMPi. Scottish Natural Heritage, one of NMPi's partners, has developed a web map service (WMS) that is allowing us to replace the Priority Marine Feature layers in the Healthy and Biologically Diverse Seas section to a direct feed from SNH and with new symbols, as well as add some new layers on Basking shark, Minke whale and Risso's dolphin for example.

NMPi also caters for emerging Scottish Marine Regions and some layers can be found in the 'Regions' section. Marine Scotland welcomes feedback on NMPi at any time. Please e-mail [marineplanning@gov.scot](mailto:marineplanning@gov.scot)

[NMPi](#) partners: [Marine Scotland](#); [SEPA](#); [SNH](#); [Joint Nature Conservation Committee](#); [MASTS](#)



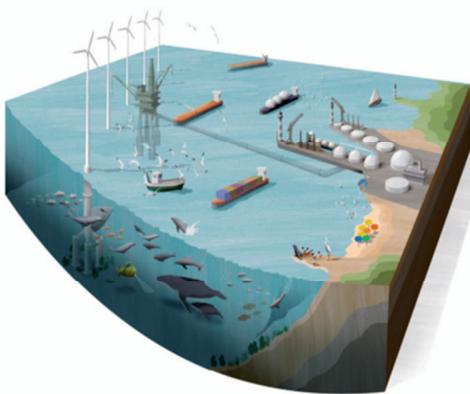
## 4. Tay Estuary Forum Annual Conference Report 2016

### *Seascope: A Coast of Contrasts*

22/4/16 West Park Conference Centre, Dundee

Over 60 delegates, representing a range of environmental, coastal & marine stakeholders, attended this year’s Tay Estuary Forum Annual Conference in Dundee, *Seascope: A Coast of Contrasts*. The event unites researchers, artists, environmentalists and engineers, sharing a common vision of communicating sustainable practice at various scales within regional coastal and marine sectors. Three sessions explored current issues for the Tay Estuary & coast of east-central Scotland. Professor Rob Duck’s opening address announced the event as the TEF’s 19<sup>th</sup> Annual Conference and introduced the many overlapping themes in the day’s programme, under the banner of *Seascope*.

#### **Session 1: Capturing the Coast (Chair Rob Duck, Tay Estuary Forum)**

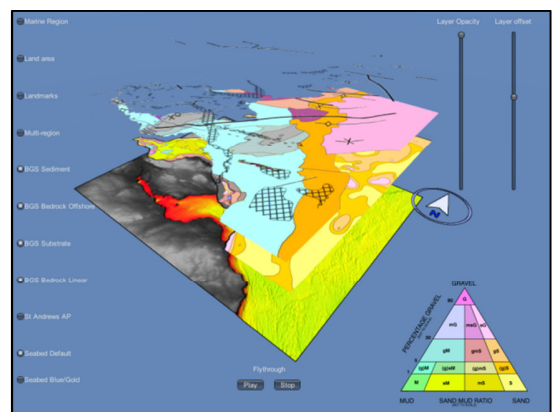


Sea section. Image courtesy of European Commission

James Fitton (University of Glasgow) gave an update on the National Coastal Change Assessment (NCCA), a pan-government project which classifies Scotland’s erodible coast for the first time. The project is due to finish in September 2016 and will inform statutory advice across Agencies and Local Authorities alike in support of strategic planning areas. It particularly highlights where erosion may influence flood risk – an aspect currently not identified within flood mapping. Rhona Fairgrieve (Scottish Coastal Forum) then followed with an outline of Scottish Coastal Forum activities and Marine Scotland priorities for the coming year, alongside the results of the Marine Tourism and Recreation Survey, published in March 2016. The study estimates marine recreation and tourism expenditure in Scotland to be worth £3.7 billion per year. Finally, Hannah Grist (Scottish Association of Marine Science) illustrated new opportunities in marine citizen science within the Capturing our Coast project, which trains volunteers to survey foreshore habitats and species.

#### **Session 2: Characterising the Coast: Seascope (Chair Dan Gilmour, University of Abertay)**

Seascope characterisation can be defined as “the process of identifying and describing variation in the character of the seascope, and using this information to assist in managing change in the seascope”. Tim Stojanovic (University of St Andrews) reflected on the policy background of Seascope, and the project which aims to summarise considerations which might support future seascope characterisation for the Forth and Tay estuaries. Vlad Stojanovic (University of Abertay) then gave a demo of the 3D Visualisation model of the Tay and Forth estuaries, which helped collect opinion and data for the project. He showed how layering of data layers (e.g. subsurface geology, beneath the present (and past) geomorphology can help to depict change over time (see figure opposite, coastline shown in dark grey). The final report for the Seascope project is now available on the TEF website as an Occasional Paper: [www.tayestuary.org.uk/](http://www.tayestuary.org.uk/)



**Forth-Tay Seascope Model Screenshot.**  
Image courtesy of Vlad Stojanovic, University of Abertay.

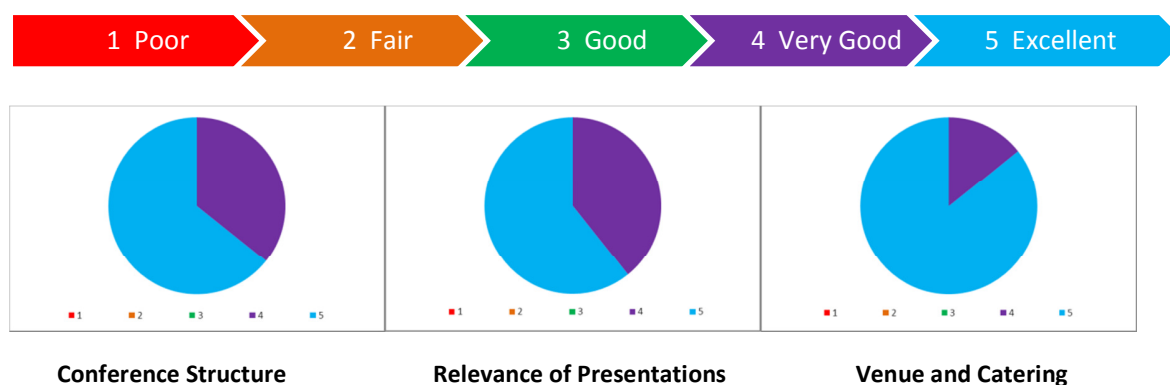
Lunchtime exhibits included displays from Angus Shoreline Management Plan II; Artist in Residence for CECHR at the University of Dundee, Jean Duncan showing her recent work depicting Tsunami deposits at Montrose Basin; lovely seascope paintings by Dundee-based artist, Penelope Anstice; Marine Conservation Society; Tayside Biodiversity; East Haven Together; Ties to the Tay project; Student posters and Marine Scotland’s National Marine Plan interactive (NMPi).

### **Session 3: Changing Coasts (Chair Geoff Squire, James Hutton Institute)**

Jim Densham gave an illuminating talk about the loss of protective habitats in the coastal/ inter-tidal zone, using Nigg Bay as a Case Study site and calling for a blueprint for coastal adaptation and change, identifying suitable areas for managed realignment schemes as particularly important. This was followed by Kelly Ann Dempsey (Angus Council) outlining the revised Tayside Biodiversity Action Plan, Coastal and Marine Section 2016-2026, before reflecting more generally on landscape scale coastal conservation in Tayside. Kelly Ann also covered the work of Marine Life Angus and East Coast cetacean recordings. Catherine Gemmell gave a rallying cry for assistance in keeping our beaches clean and presented information specific to Tayside from results of the Great British Beach Clean 2015. Finally, rounding off the day, Nikki Christie (Repsol) discussed progress with the Inch Cape Offshore Wind Farm and voluntary efforts of the Inch Cape team in conservation and beach cleaning work on the Firth of Forth islands, such as Inchkeith.

Closing comments by Rob Duck rounded off the day, summarising insights from the 3 earlier discussion sessions, and outlined from a TEF perspective.

Feedback from the event has been really positive. Of the 60+ delegates in attendance, 28 feedback forms were returned, the results of which are seen below. (1-Poor, 5-Excellent):



#### **Some suggestions for future topics:**

- Forth-Tay Marine Planning Partnership
- Management of Land-Sea interface-conflict resolution and streamlined governance
- Commercial fishing interests in the Tay Region
- V&A Museum development in Dundee
- Energy sources from the sea, tidal, wave, heat extraction
- How local authorities plan to include marine planning in their areas of jurisdiction
- New “vision” of the coast
- Coastal development and defences
- Role of commercial activity/development in the Tay
- Involvement of landowners adjacent to the Tay-management of their interests in the coastal/estuarine environment
- Tourism-use of the Tay
- Methods for engagement, or empowering public in marine planning/management at local level
- Decline of botanical biodiversity in coastal and estuarine habitats

**2016 Delegate comments:** “The quality of the speakers and participants was outstanding” ...”very informative presentations, a good range of topics, something for everyone, even if the topic is not in your area of expertise there was still something to learn” ...”fabulous catering” ...”interesting theme which offered a variety of perspectives: good to hear from academia to industry” ...”a great networking opportunity for all delegates and participants with a very relaxed and friendly atmosphere” ...”great to involve local communities” ...”interesting exhibitions” ...”right mix of presentations and Q&A”

# Perth and Kinross Archaeology Month

june 2016



Guided walks, excavations, exhibitions  
and presentations celebrating the  
archaeology of Perth and Kinross ...



*Inspired and informed by the ongoing SERF research project, an artist's view of Castle Law Hill Fort, Forgandenny with Strathearn and the Tay Estuary beyond © David Simon*