



A PUBLICATION BY THE TAY ESTUARY FORUM: PROMOTING THE WISE AND SUSTAINABLE USE OF THE TAY ESTUARY AND ITS ADJACENT COASTLINE

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Hi all,

The TEF annual conference back in April (Item 2) was a success with over 60 delegates attending, along with some new faces and a growing number of PhD students from nearby universities. Posters and presentations informed delegates of the latest goings on in the estuary and further afield. Glasgow 2014 Commonwealth Games representatives attended the conference and laid out plans for Barry Buddon, which was a nice link to make in advance of a fantastic few weeks of sporting events in Scotland. We are starting to think of themes for next year's event, so any suggestions welcome. More recently, the TEF have been out and about on various field trips this summer, (Items 4 & 5). Finally, the new TEF website is up and running with the latest news, reports and events. Please don't hesitate if you would like to link to our new site or add material for publicising your events which align with Forum objectives: www.tayestuary.org.uk
Best wishes, Laura Booth (Project Officer)

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1: TEF UPDATE

- TEF Steering Group meeting Thurs 24th July 2014 at James Hutton Institute, Invergowrie followed by field trip to Balruddery Farm field platform. Thanks to Geoff Squire for hosting.
- Next meeting Oct 31st, University of Dundee.
- Fife Council now represented on TEF.
- Scottish Local Coastal Partnerships meeting in Glasgow, August 2014.

To join the TEF mailing list or to put forward your views, articles or pictures please contact:

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View from Fife towards Port of Dundee, July, 2014



2. Tay Estuary Forum Annual Conference Report 2014 Creative Coasts 4/4/14 West Park Conference Centre, Dundee











Over 50 delegates, representing a wide range of coastal and marine stakeholders, attended this year's Tay Estuary Forum Annual Conference in Dundee, entitled *Creative Coasts*. The event brought together scientists, artists, environmentalists and engineers with a common vision of illustrating innovative ways of engaging communities with our local coastal and marine environments. Three sessions looked at key current issues for the Tay Estuary and coastline of east-central Scotland and are as follows:

Session 1: Flood Defence: Impacts of Storms on Coastal Sites and Assets

Rob Duck set the scene using images of storm damage from Jan 2014 along the Angus coast and the south coast of England including examples of damage to infrastructure at Dawlish and to sea defences at Monifieth (opposite). Kate Wade (University of St Andrews) then discussed people's willingness to pay for coastal flood defences in the Eden Estuary, and how the value of flood defence varies depending on the type of land being protected, type of defences installed and the extent of the defences. Kate's survey in collecting local opinion is available at: http://synergy.st-andrews.ac.uk/edensurvey/. Alan Ross, Director of Route Asset Management for Network Rail (Scotland) then outlined Network Rail's policy and approach to managing coastal defences, with reference to the Tay Estuary. Alan described the challenges faced in adapting to climate change and outlined Network Rail's adverse weather procedure as one of the measures put in place to



deal with storm events. Finally, Ellie Graham (The SCPAPE Trust) assessed recent storm damage to Scottish coastal archaeological sites and explained how citizen archaeologists can help record and monitor changes to newly exposed sites at: www.scharp.co.uk

Session 2: Onshore and Offshore Sustainable Development

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Geoff Squire (James Hutton Institute) chaired this session which looked at examples of onshore and offshore sustainable developments within the TEF region. Roddy Yarr (University of St Andrews) outlined plans to make the University of St Andrews carbon neutral for energy by 2016. This target includes development of a 6MW biomass district heating scheme at Guardbridge, a site recently acquired by the University on the site of a former paper mill. Together wind a proposed wind farm at Kenly, a combined carbon reduction potential of 27,000 tonnes of carbon is forecast. David Pratt, Marine Scotland then gave an update on planning for Offshore Renewables around the Scottish coast. Representatives from Glasgow 2014 Ltd, Alastair Duncan (Venue Development and Overlay Manager) and Gareth Talbot (Environment and Sustainability Manager) discussed venue development at Barry Buddon (above), for the

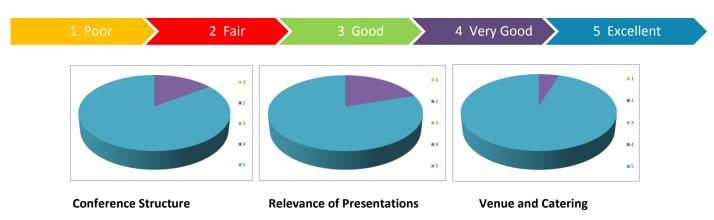
Games' shooting competitions, alongside respecting the site's ecological integrity. A timelapse sequence of Dundee Waterfront was provided for display by John Gray, Dundee City Council.

The third session, chaired by Anton Edwards (Scottish Aquaculture Research Forum), saw internationally recognised artist, Derek Robertson, talk about his artist residency at Tentsmuir for the Year of Natural Scotland, 2013. He illustrated his talk with some fantastic examples of his work, more of which can be viewed at: www.memoryoftides.com. Johanna Willi (Fife Biodiversity partnership) looked at ways of protecting and enhancing biodiversity on the Tay alongside promoting the revised Fife Local Biodiversity Action Plan. Johanna described various examples of good practice, from which to learn from, such as a dune restoration project at St Andrews. The final presentation of the day was by the University of Dundee's Centre for Environmental Change & Human Resilience's artist in residence, Jean Duncan. Jean's talk illustrated the benefits



to creatively combining artists' and scientists' perspectives in recording change at the coast. Jean talked about work she is collaborating on with Fraser Milne and Tracey Dixon (University of Dundee) at Montrose Bay. Timelapse sequences of the eroding coast were provided by Tracey Dixon. More can be viewed at: www.montrosebay.org.

The event received publicity from local papers, and STV news. Feedback from the event has been positive. Of the 50 delegates in attendance, <u>21</u> feedback forms were returned, the results of which are as follows (1-Poor, 5-Excellent):



Suggestions for future topics are as follows:

- Coastal Development Plan
- Marine Surveying
- The Tay as a tourist resource and economic driver of national significance
- Dundee's Coastal Protection Study
- Current and future threats to the estuary
- Combined Tay/ Forth topics
- Coastal vulnerability and climate change adaptation in Tay communities
- · Implementing ecosystem services
- Best practice soft coastal engineering
- EU Directive on Integrated Coastal Zone Management
- Poster sessions

<u>Delegate comments:</u> "Excellent: Of national/ international value", "fantastic merge of science and art", "enjoyed the breadth of subjects covered, and felt the artistic angle was refreshing and interesting, great balance!" "Particularly impressed with the range of presentations, it was an enjoyable day!"

3. On-line interactive mapping to support marine planning

Technological advances since terrestrial planning started some 60 plus years ago have raised expectations as to the accessibility of spatial data. In addition European legislation, the 2007 <u>EU Inspire Directive</u> requires the sharing of environmental spatial information among public sector organisations and better public access.

The <u>Marine (Scotland) Act 2010</u> introduced national and regional marine planning for Scottish waters. To support the development of marine planning, marine data are now available at your PC - or on your tablet if you are on the move.

Marine Scotland has developed <u>National Marine Plan interactive</u> or <u>NMPi mobile</u>: A web based GIS using GeoServer and Open Layers software, to provide spatial data and make it readily available to stakeholders. All the data from <u>Scotland's Marine Atlas</u>, which brought together a wealth of spatial information about Scotland's seas for the first time, are now available amongst over 400 data layers and links to associated web pages for further information.

Marine Scotland strives to keep marine stakeholders up to date with data as much as possible and is working with its partners, SEPA, SNH, JNCC and MASTS to add further suitable data to NMPi. New layers are added when available - for example, the new Marine Protected Area designations announced in July 2014. NMPi can also act as an archive reference – for example storing the maps from the 2013 draft NMP in a separate section.

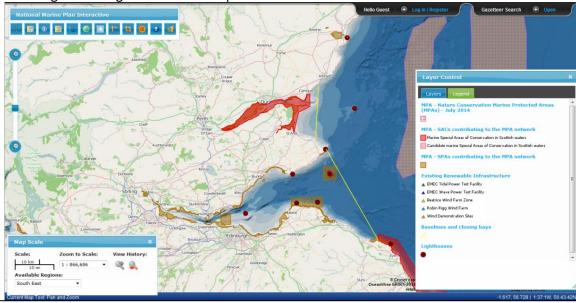
For regional planning, NMPi is being populated with initial data layers provided from the emerging Scottish marine regions. Layers exist so far for the South West, Clyde, North Coast and Orkney Islands, and Shetland Isles regions. Marine Scotland encourages all regions to submit data that would be relevant for marine planning and suitable for public accessibility.

All NMPi users have access to the data, as switchable layers, through a web interface; and links to associated information and the NMPi Web Map Service (WMS) through their own GIS packages (if required). It is free to register – which gives the additional functionality of creating pdf maps for printing / e-mailing; developing bespoke data layers and downloading certain data (subject to a licence agreement).

NMPi is an innovative tool to assist Marine Scotland and the emerging marine planning partnerships in the delivery of national and regional marine planning. It will support policy making as use of the seas changes, whether for sustainable economic growth through a variety of human activities or conservation through the designation of marine protected areas.

If you would like to discuss NMPi please contact Martyn Cox at Marine Scotland.

martyn.cox@scotland.gsi.gov.uk



NMPi focussed on South East Region showing MPAs, SACs and SPAs, existing renewables infrastructure, baselines and closing lines and lighthouses



4. Between the River and the Sea International Conference Dundee, 16th-18th September 2014

The TEF attended a 3-day, international conference hosted in Dundee, discussing Integrated Perspectives on Catchment & Coastal Zone Management; along with recent findings in the field of integrated water resources and coastal lagoons management. Prof. Rob Duck (TEF Chair and University of Dundee) gave a keynote presentation on the River Tay and its Estuary, before leading a field trip to key sites around the Tay Estuary with TEF Project Officer, Laura Booth (the viewed itinerary and photos can at: http://tayestuary.org.uk/wp-content/uploads/sites/9/2014/06/Between-the-River-and-the-Sea-Field-Trip.pdf

It was an informative, enjoyable conference, complete with a ceilidh aboard HM Frigate Unicorn in Dundee's City Quay. Thanks to the conference organisers for the opportunity to be involved, Prof. Geoff Gooch (Director of Centre for Water Law, Policy and Science (under the auspices of UNESCO) and Hugh Gunn (University of Dundee).

Alas, despite best laid plans, things don't always go according to plan, and despite a fabulous recce several weeks in advance, the weather didn't exactly play ball on the day, with every viewpoint spectacularly shrouded in cloud, so... here's what it should have looked like for those that attended!

Pictures in order of: Tay Rail Bridge, Riverside Nature Park, Tay Road Bridge and Tayport salt marsh. (Courtesy of R. Duck, H. Gunn & L. Booth).

In theory....













5. TEF Field Excursion, James Hutton Institute, Invergowrie 24th July 2014.



July's TEF Steering Group meeting was followed by a guided walk, led by Geoff Squire, at the James Hutton Institute. Geoff showed the group round JHI's Field complex. situated near Invergowrie Living (above http://livingfield.hutton.ac.uk/welcome followed by the Balruddery farm field platform which overlooks the Tay near Fowlis (below left). It was a beautiful, hot, sunny day (this time), and the views over the Tay were fantastic, as was the wealth of activity and range of crops seen at the various locations. From sweet peas to potatoes, summer meadow to reeds, the Living Field gives an accessible display of plants and insects that is tucked away in this corner of Tayside farmland. Access and visits can be arranged by contacting JHI.



Thanks to Geoff for hosting the Tay Estuary forum at the site, and for providing an enjoyable, informative afternoon. Twelve attendees representing the wide range of interests on the TEF (including SNH, Forth Ports Ltd, the Universities of Dundee and St Andrews, local authorities and Scottish Aquaculture Research Forum) got a valuable opportunity to ask questions about the challenges currently faced in farming and agriculture practices and to learn about measures and research programmes currently being investigated to address those issues and their success in doing so.

JHI are keen to communicate their activities via awareness raising and engagement with organisations like the TEF. It is a rare occasion that such diverse interests can come together and learn in such detail about such an important local sector in the Tay region and a connection we are keen to build on. http://www.scri.ac.uk/scri/file/events/sps/Balruddery_sustainability.pdf offers more information). Photos courtesy of R. Duck and L. Booth.





