

Minutes of the 112th Meeting of the Fleet Study Group – 21/11/14.

Attendees

Ed Harland	Chair
John Dadds (JD)	
Richard Acornley (RA)	EA
Don Moxom (DM)	Fleet Warden
Stephanie Ashman (SA)	NE
Ruth Carpenter (RC)	NE
Lin Baldock (LB)	
Marc Smith (MS)	DWT
Steve Hales (SH)	
Angela Thomas	CBFNR
Charlotte Bolton	DWT
Nicky Mitchard (NM)	EA/secretary
Jonathon Cox (JC)	NE
Nick Owen (NO)	
Alan Frampton (AF)	Halcrow
Kevin Donnelly (KD)	
Adrian Brockenshire (AB)	

Apologies for absence

Emily Brown, David Bucke, Matt Doggett, Sue Eden, Alan Holliday, Angela Scott, Rachel Waldock

Minutes of the 111th meeting (July 2014)

No outstanding actions.

Matters arising

No immediate matters arising.

Reports from representatives

Dorset Coastal Forum – Met on 12th November 2014 to discuss a funding proposal for an Interreg project focussing on the management and engagement surrounding marine protected areas (MPA's). Presentations were given on building identity and branding of a Dorset MPA network.

Portland Harbour Consultative Committee – Met on September 2nd 2014 though nothing of any relevance to the Fleet. Items discussed included how to deal with conflict between users of Hamm Beach and the extension of piers to accommodate cruise liners as existing jetties are no longer fit for purpose.

Chesil and Fleet EMS – October 2014. Presentations on coordinating a response to pollution issues affecting the Fleet. The meeting ended with a demonstration of the oil boom deployment. This meeting raised a number of important points but ran out of time for a detailed discussion on the issues raised.

Research reports

LB reported that Nina Wills will be writing a paper on the findings of a plankton survey carried out last autumn and this will be published soon.

Four temperature loggers have been deployed in the Fleet, these will provide temperature and depth which will provide evidence of water movements.

Natural England carried out a macrophyte survey in the Fleet in July and reports from this are currently being reviewed by Gavin Black (Natural England) – to be signed off soon.

LB also reported that a walkover was carried out in August to map over-wash from the 2014 winter storms using GPS.

DM reported that Swansea University have carried out work looking at beach cusps using Environment Agency data.

MS – A pink sea fan survey is designed to be carried out with the intention of getting the public involved. It will study the impact of storms and report on the status of the Stennis Ledges designation. It will include beach transects, recording the size of pink sea fans, the presence of entanglement and other species washed up. Two surveys are complete and results suggest a lot of pink sea fans are being found in specific areas. The methodology of the surveys can be sent out if required.

EH showed water temperature data recorded in the Fleet near the Black Hut for 2014. The depth data shows high highs in February and low lows in August. There was one anomaly recorded in late October which may be a result of a storm surge at this time. The data goes back 5 years and all data is uploaded into Excel. Each year has around 105,000 points and EXCEL struggles to cope. An improved method of handling this size of dataset is required.

Presentation 1 - The impact of the winter 2013/14 storms at the Portland end of Chesil Beach by Alan Frampton (Environment Agency).

AF reported he had been assessing beach responses along the Dorset coast caused by a sequence of storms caused by global factors. There were a number of significant storms causing flood warnings to be issued between December 2013 and March 2014 at Chiswell. Telemetry data is available for all events. Changes to Chesil Beach were captured using 4 main resources: 1) visual inspection 2) topographic surveys 3) LIDAR flights 4) bathymetric surveys.

LIDAR flights were carried out from November to February, the next flight is planned to be conducted this month. These flights and data are managed by EA Geomatics.

The beach is still not back to the same volume of material compared to this time last year. A single beam bathymetric survey carried out by Weymouth and Portland Council in March 2014 compared data to DORIS survey data.

There was also various damage to coastal defences, part of the seawall failed following the Valentine's Day storm. The gabion castle and mattresses also partially collapsed and sheet piling was exposed. Six properties in Chiswell flooded in total. Roads were flooded due to wave overtopping including flooding of the A354 due to spray, high tides, wave overtopping and over-washing of the beach.

Recovery works included recycling and re-profiling of the beach, repairing the seawall and reconstruction of the gabion castle and mattresses. All repairs were completed in October 2014 however the beach is still fragile and the volume is still reduced.

The biggest issue that was faced was the cumulative effect of the storms. There is now however increased monitoring of the beach and a better understanding of the defences including how to maintain them and how the coastal defence system operates.

Presentation 2 – Water quality in the West Fleet: Seasonal patterns and long term trends by Richard Acornley (Environment Agency).

Water quality monitoring has been carried out in the Fleet lagoon at six locations on a monthly basis since January 2002 under a Nitrates Directive driver. In-situ measurements include pH, salinity, DO, temperature, P, N, silicate, chlorophyll and transparency.

Salinity shows seasonal and spatial differences. Storm events affect salinity results and there were no results >35ppt. Salinity decreases in the West Fleet.

Total oxidised nitrogen (TON) which predominantly comes from agricultural sources shows particularly high levels in winter in the West Fleet (Abbotsbury Swannery and Clouds Hill).

Ortho-phosphate (OP) shows a clear seasonal pattern with highest levels in summer in West Fleet due to desorption from sediment.

Silicate shows a typical spatial trend however no clear seasonal pattern. Peak levels recorded in Clouds Hill in summer due to dinoflagellate blooms. Samples may be taken by EA monitoring staff if it is believed toxic species may be present. Increases in silicate may be related to decreases in salinity at the same time, possibly due to changes in ecological communities?

Chlorophyll-A shows a spatial pattern with peak levels recorded in spring/summer in Abbotsbury Swannery.

Nutrient control measures associated with the Fleet include the designation of the Fleet as a Nitrate Vulnerable Zone (2002), phosphate reduction at Abbotsbury STW (2006) and voluntary agricultural related measures in the catchment such as CSF, Landcare Environmental Stewardship, Fleet Hinterland Project.

A seasonal Kendall Test was applied for trend analysis purposes. This showed no change in N, P or chlorophyll using the 12 year dataset.

Monitoring has also been carried out on the six streams flowing into the Fleet, some of which has been ongoing since the 1980's.

Flow-TON relationship (2002-2014) using River Wey flow data showed that N levels increases with flow in 5 streams except Horsepool. Overall there has been a significant reduction in N in all six streams since 2002.

Flow – P relationship shows that P is diluted with flow (mainly point source). A step change decrease was shown in Horsepool Stream following P stripping at Abbotsbury STW.

Under the Water Framework Directive (WFD) there are currently no reference conditions for saline lagoons. Therefore the tool used for the Fleet to determine quality elements is not appropriate. Monitoring on the Fleet is therefore currently not driven by WFD but the Nitrates Directive following the designation of the Fleet as a Polluted Water (Eutrophic) in 2002.

JC asked whether there has there been an investigation carried out of septic tanks discharging to the Fleet? RA said that no survey had been carried out to date. The increases in N in the East Fleet Stream could be related to septic tank discharges.

EH asked whether trends could be missed due to under-sampling? RA suggested it may be possible, to monitor more frequently over a shorter time frame.

DM wondered whether the distribution of chaetomorpha bloom related to salinity? It is hard to understand the cause unless we monitor the chemical elements alongside the biological elements.

Coastal Access (Natural England)

Proposals not finalised as still awaiting final assessment due to missing data from the commissioned survey. This should be available next spring. The Coastal Access Team will consult with the Fleet Study Group separately.

Site Improvement Plan for Chesil and the Fleet EMD (Natural England)

SIP's are part of the IPENS programme which is a national project. The SIP's have been circulated for comments and any comments are required to be sent directly to RC or SA. This high level plan will establish costs of measures and highlight the lack of funding at the European level. The plan will be updated and finalised by the end of March 2015.

LB noted that the Fleet SIP is no different from the 2004 action plan regarding measures required.

Fleet Wardens Report (DW)

There is an ongoing assessment of the impact from the February storms.

There is a persistent litter issue resulting from the Maersk shipping container spill. It is estimated that 25% of the debris from this incident is still on the beach despite local efforts. It is particularly difficult to clear this material from the remoter parts of the beach.

An access report will be produced by DM. The document will set out plans and preparations regarding vehicle access, boat safety and will be useful for multiple users including survey work.

There is a slight reduction in Reed Warblers at Abbotsbury (1 breeding pair). Reed Buntings have also reduced in number. Storm damage to reed beds has resulted from last winter.

The issue of the impact of micro-plastics on biota was raised, this could be a future topic of discussion.

FSG Field Day 2014

This took place 26th September 2014 with 8 members in attendance.

The survey involved 4 paired locations and were the same sites as the 2013 survey focussing on surveying litter and plant cover.

Four litter types described. 453 bottles were recovered at Chickerell Hive. 2014 saw lower counts of bottles collected overall probably due to strong winds and high tides experienced over the winter lifting litter out of the Sueda. There is generally less vegetation to trap litter and re-sorting of litter by the storms has been extensive. New and old driftwood has concentrated on an over-wash line.

JB reported he had carried out a plant survey this year which identified patches of vegetation not impacted by the storm where the beach is wider and the over-wash didn't extend to. These afforded relative protection. Sea kale seemed well adapted to these events. Pockets of vegetation remained further SE. Two-thirds of species benefitted from the disturbance such as Sea Carrot through stimulating germination of buried seeds. Other species were less abundant. Most damage was caused where the beach is most narrow, towards the NW end. Some parts of the beach have not recovered in 25 years since the last biggest storm events.

KD noted that the black adders seem to have disappeared.

FSG Field Day 2015

A short discussion took place on various options for activities for the 2015 Field Day. These included:

- Clear a small section of beach of all litter and then re-survey in future years to see how litter re-colonises the cleared area
- Carry out a single site survey similar to activities in 2011 and 2012

AOB

AB mentioned that the UK Amateur Fossil Hunters Club has advertised one of their forthcoming meeting locations as the Fleet – has anyone been contacted regarding access, sensitivity of the site?

RC noted that community driven events seem to be increasing in number each year and this could be having a considerable impact.

KD mentioned the issue of re-routing the coastal path (St Catherine's Chapel to Langton). RC stated that this is being co-ordinated by Natural England's Access Team who are putting forward a proposal for this.

NO questioned how long do sea fan skeletons persist? No answer was suggested.

SH reported that yellow wagtails roosting at Abbotsbury have been tagged. The reed beds are very important to these birds. There are over 1,000 birds some nights despite the population decreasing nationally. There is also evidence of Scandinavian birds breeding.

MS is exploring DWT's future role in pollution incidents involving birds, specifically how they can get volunteers to help. The RSPB are writing a wider action plan and DWT are feeding into this.

DM noted there has been an offer of two microscopes available for anyone who might have use for them.

EH raised the issue of sewage leaking onto part of Hamm beach – RC said she would chat to Wessex Water regarding this.

Future Meetings

20th March 2015 – Red Barn (Bagwell Farm).

17th July 2015 – Abbotsbury.