

**NWIFCA Quarterly Meeting:
15th September 2017: 11.00 a.m.**

**AGENDA
ITEM
9**

SCIENCE AND SURVEY UPDATE:

1st May – 31st July 2017

Purpose: To provide an update on science and related work

Recommendation: The Authority is asked to confirm the decision made by TSB to open the cockle fisheries at Leasowe, Pilling and Flookburgh / Leven Sands from 1st September.

1. COCKLE AND MUSSEL FISHERIES

Intense survey effort has been put into cockle fisheries on the Wirral, Ribble Estuary and Morecambe Bay, and mussel fisheries in Morecambe Bay and the Duddon Estuary. Officers have carried out HRAs on the seed mussel fisheries authorised at Heysham Flat seed mussel (Morecambe Bay).

Both cockle and mussel fisheries are managed so that they are open to Byelaw 3 permit holders unless there is a specific reason for closing them. In the case of size mussel effort is generally low and there is no reason to close them. In line with the Defra Revised Approach to Fisheries Management these fisheries now undergo HRAs. HRAs are also carried out for seed mussel fisheries which derogate against the minimum landing size for mussels (in Byelaw 3), when the undersize mussel is in danger of being lost to the fishery.

In the case of cockles Byelaw 3 incorporates a closed season to protect spawning stock and newly settled spat (May 1st – August 31st). Other regulators follow similar management. When stocks allow and HRAs have been completed and agreed with Natural England, these fisheries revert to an 'Open' status at the end of the Seasonal Closure. Beds that do not have sufficient stock on them are 'Closed' – under NWSFC Byelaw 13A for the southern part of the District and CSFC Byelaw 18 for the north of the District.

This year there are three cockle beds which have sufficient stock and are Habitats Regulations compliant. These are Leasowe (Wirral), Pilling and Flookburgh / Leven (Morecambe Bay). TSB approved that these three beds should open on 1st September.

Recommendation: The Authority is asked to confirm the decision made by TSB to open the cockle fisheries at Leasowe, Pilling and Flookburgh / Leven Sands from 1st September.

There is still a potential cockle fishery for later in the year in the Ribble at Penfold North where a dense bed has not yet reached size. There are no signs of any commercial stocks of cockle and mussel in the Solway to date.

2. MARINE PROTECTED AREAS IN THE NWIFCA DISTRICT:

a) Marine Conservation Zones

Tranche 2 - West of Walney MCZ – Recover Objective. No further information – awaiting guidance from Defra and MMO on cross-boundary management approach. Verbal update to be given at the meeting.

Tranche 3 – three estuarine sites Ribble MCZ, the Wyre / Lune MCZ, and the Solway MCZ. No further developments.

b) Review of Fishing Activities in European Marine Sites

Work has slowed on completing the Review of Fishing Activities in European Marine Sites due to an extremely busy spring and summer with active fisheries, which have undergone HRAs in their own right (cockles and mussels). Dee Estuary – shrimp and light otter trawling is in progress. Trawling and netting are being reviewed in the extension of the Solway Firth Special Protection Area (pSPA).

c) St Bees Head SSSI – Netting and Bird Entanglement and Disturbance

Officers convened two meetings with fishing stakeholders (commercial and un-licensed) in Whitehaven along with Natural England colleagues. The aim was to gain an improved understanding of netting activity around St Bees Head, and discuss concerns and potential management options to prevent entanglement of and disturbance to nesting birds on the cliffs. The area is designated as a SSSI, is an RSPB reserve and is the only example of rock cliff in the NWIFCA District. Cumbria Sea Fisheries Committee had intended on making a byelaw to prohibit netting. There have been instances when diving birds such as guillemots and razorbills have become entangled and drowned, and also concerns around disturbance to birds rafting at the base of the cliffs, particularly juvenile birds.

Natural England are in the process of consulting with recreational users and further measures within a code of practice regarding boat speed and proximity to rafts of all users, both the fishing sector and otherwise, will be considered in due course.

A proposal has been made to implement a Voluntary Code of Conduct as a first measure, which would apply to all fishing sectors. Compliance would be monitored by IFCOs, and there have been offers from fishers for observers on-board.

3. BAIT COLLECTION HABITATS REGULATIONS ASSESSMENTS

The Senior Scientist had been in discussion with Defra and Natural England about a perceived change in course of action over assessing the impacts of bait collection in EMS. She tabled the issue at the IFCA TAG meeting in June to ascertain how other IFCAs are dealing with it. There was a variety of responses indicating a level of confusion and dysfunction in communication. TAG Chair has sent a letter to Natural England lead Mike Quigley as an initial attempt to reach clarity.

A December 2018 deadline has been set for management of damaging bait collection activities from both recreational and commercial gathering. There is confusion over which bait collection activities should be included – whether only baitworm digging and pumping, or crab tiling, and what the rationale for singling these activities out is. NWIFCOs have been recording sightings of all activities. The HRAs will be completed site by site once clear direction has been given on expectations. No management from current known activity levels is envisaged.

4. C- BASS TAGGING PROJECT

The Cefas C-Bass tagging project began in the NW District in mid-June. Successful joint working between CEFAS, the NWIFCA, MMO and industry (2 local commercial bass fishermen) saw 34 data storage tags (DSTs) deployed in bass over 50 cm. 35 T-Bar tags were inserted in smaller ‘schoolie’ bass around 30 cm. The work took place onboard industry fishing vessels as well as from the shore. The project will continue in early September and will hopefully deploy the remaining 26 DSTs.

5. MOORSIDE POWER STATION

NuGen announced earlier this year that the Moorside Power Station development and associated North West Coast Connections projects had been put on hold, due to investors pulling out of the new nuclear build projects following the company manufacturing the reactors going into receivership. Officers have down-scaled involvement in these projects until such time as financial security has been declared. In the meantime the Lake District National Park has been designated a World Heritage Centre, and it will be interesting to see whether this affects NWCC plans for the high power cable route. If that should occur it is likely there will be greater attention on routing offshore.

6. WEST CUMBRIA MINE

Officers attended a meeting with West Cumbria Mining, the MMO and fishermen in Whitehaven to discuss a variation of the Marine Licence for the exploratory borehole surveys. This involved an increase from 12 hours a day drilling to 24 hours. The NWIFCA had expressed concerns over potential for cumulative impacts considering other developments in the area, and that there was a lack of evidence that there will be no significant impact on the marine environment. CEFAS had recommended monitoring if there was a shift to 24 hour drilling.

7. RAZOR CLAMS

Members will be aware that there are razor clam beds along our coastline, both sub-tidal and inter-tidal, and that there is great industry interest. Efforts have been made in the past to work with industry to seek funding to carry out research into the stock. Unfortunately these efforts have not borne fruit and there is currently little known about the distribution or ecology of the stock. The Authority took the decision previously not to authorise fishing without the ability to ensure sustainable management.

In order to provide the Authority and stakeholders with some clearer information on future options, Ms Aitken has been tasked with investigating approaches taken by other regulators – if and how individual population's distribution and ecology is studied, how sub-tidal razor fishery stock assessments are carried out, and if any fisheries are managed, how is this done to ensure sustainability of the stock. The intention is to produce a full report for TSB to consider in relation to razor clam stocks in NWIFCA District, and whether there are actions the Authority would need to take to manage a sustainable fishery.

8. RESEARCH PROJECTS

- a. Natural England – has funding for two small projects relating to NWIFCA fisheries:
 - i) Drone surveys of crab tiles in the Mersey Estuary and North Wirral Foreshore – to assess the benefits of using drones over foot survey – comparing time and accuracy.
 - ii) Investigation with fishermen into use of Nephrops creel pots in the West of Walney MCZ as an alternative to trawling.
- b. Lobster Genetics

Manchester University PhD student is carrying out research using genetics to assess the current stock units of the lobster fisheries around the UK and Ireland, and then looking at the potential effects of the restocking projects underway at the various hatcheries. He is collecting wild samples (30 specimens) from each geographical location, and examining them for genetic markers to determine if lobsters around the UK and Ireland are one large stock or if there are distinct locational variations and therefore regional stocks. NWIFCA have assisted with collecting samples (35 to date), and have also sent a sample of a non-native American lobster (*Hommarus americanus*) which had physical features

of both American lobster and European lobster (*Hommarus gammarus*) to see if any work can be done to ascertain whether it is a possible hybrid.

c. Lancaster University – officers have been assisting two Masters students with dissertation projects, the outcome of which is intended to aid understanding of cockle movements in Morecambe Bay.

- i) A desk study of cockle movements and influential factors.
 - To assess the relationship between sediment dynamics and cockle movements.
 - To determine direction and rate of movement of cockles of different sizes/ages within the Morecambe Bay.
 - To inform future modelling/prediction possibilities
- ii) An investigation into the temporal variations of Morecambe Bay channel movements and the relative influence of this upon cockle bed settlements.
 - Examine temporal variations of channel movements in the Lune channel in relation to the cockle bed settlements at Pilling sands, Lune Island and Middleton Sands through the mapping of a time series of channel movements and known cockle bed locations.
 - Evaluate the influence of climatic variations on sediment movement within the ecosystem and thus channel movement due to the potential implications on cockle migration.
 - Determine the sediment type and elevation.

9. WEBSITE – Species Ecology

Science Officers are working to populate individual species ecology pages for the website, providing summary information on important fishery species in the District. These will be found via: <http://www.nw-ifca.gov.uk/managing-sustainable-fisheries/#>

10. MONTHLY SHELLFISH ACTIVITY RETURNS FORMS

Officers have been digitising Monthly Shellfish Activity Returns forms (MSARs) from 2006 to present which vessels with a shellfish permit fishing for lobster and crab are required to submit monthly. The forms detail data including amount of each species landed, the number of pots set and hauled and the area fished each day. The data will be analysed for spatial and temporal changes in both catch and effort to give officers a better understanding of the crab and lobster fisheries in the district.

11. OIL SPILL RESPONSE

Officers have been involved in the response to the oil spill from the Douglas Complex oil installation 15 miles off the coast of North Wales on 10th July. Small oil deposits and 'tar balls' have washed up on the shore extending from Bispham to Cockerham Sands. A clean-up was carried out. Senior Scientist is a member of the Standing Environment Group providing support and information.

12. NWIFCA NEW VESSEL

Science Officers attended a site visit of the NWIFCA new vessel during her re-fit in Holyhead and are involved in planning of science requirements on-board.

13. MMO Marine Licence and other consultations this quarter:

MMO Marine Licence consultations

BAE Barrow saltwater intake dredge

WCM metallurgical Coal Exploration- pre-variation enquiry

Burbo Bank Extension- Export Cable Repair and Remediation activities
Burbo Bank Offshore Windfarm Operational & Maintenance Licence for Export Cable Repair/Remediation activities
Burbo Bank Extension- Array Cable Repair and Remediation activities
Shell Flat Met Mast Decommissioning Project
Installation of spud leg pontoon for use by crew transfer vessels for Walney OWF construction phase
Water Quality consultation BAE systems Ltd Barrow
Heysham Harbour and Approaches Maintenance Disposal Licence

Byelaw 1 dispensations

Cefas bass tagging with commercial fishermen
CEFAS Annual Fish Survey

Meetings and Training attended this quarter

MMO Fisheries Non-Enforcement Training
IFCA Technical Advisory Group
Powerboat Level II training
Solway Firth Partnership meeting
Barrow Wildlife and Heritage Advisory Group meeting

**Science Officers
22nd August 2017**