ran Doherty

From: Daniel Bastreri <daniel@mpm-environment.london>
Sent: Monday 11 November 2019 04:13
To: Kieran Doherty
Subject: Re: Galway Harbour

Hi Kieran

Not a problem at all, glad to be able to help.

I certainly agree that it is everyone's best interest to clarify this, but I am not sure that re-drafting point 10 will contribute to this. On the contrary, I think it will cause further confusion.

As a start, this specific point must be considered together and ideally after points 1 & 9 (below).

1 -There are specific concerns that the monitoring programme to be employed may not provide an effective method to measure the success of the compensatory measures. Detailed monitoring is required to test the success of the compensatory measures. It is considered that there are no clear specific objectives for the monitoring programme which set out measurable outcomes on which the success or otherwise of the proposed compensatory measures can be ascertained. The compensatory measures need to be compared against a set of established indicators and thresholds. Please provide an appropriate methodology to address this issue.

9 - Concern is expressed that in it's current form, the sampling strategy is not specific enough for the establishment of a baseline environment on which the success of future compensatory measures can be assessed. Please provide further details of a sampling strategy which will provide comprehensive data on a baseline environment on which before and after scenarios can be established, and how these will be compared.

No

So, in my opinion, the applicant should address these two points first, before point 10. Possibly, sorting out these two will also solve point 10. I don't think that they need to compare intertidal benthic communities in Renmore and Tawin Island to evaluate the success of the compensatory measures, so this issue is likely to be solved by solving 1 & 9.

At the moment, I can't comment on their outline for a new survey or monitoring design, beyond my initial comments. This is because the proposal is not detailed enough, and I don't understand why this would be necessary. The very sketchy proposal that they put forward (which I believe is for point 10 only) does not address the main issues (1 & 9). It doesn't even address point 10, but I think that we'll discuss this when/if we get there. My view is that once they address 1 & 9, they will have the response for 10.

The current monitoring programme of the intertidal habitats in Tawin, which they alreay initiated, is appropriate to evaluate the fluctuations in abundance and diversity of the benthic populations at this site. This doesn't need to change. However, the focus should shift from comparing this fluctuations with those in the benthic populations in Renmore to comparison with a selected reference site. Alternatively, if they consider that this comparison (Tawin-Renmore) is important or necessary to evaluate or measure the success of the compensatory measures, they need to provide the rationale for this. Again, this would address points 1 & 9, as it would be necessary to set objectives for the monitoring programme. The objective of any regulatory programme is to test impact hypothesis - in this case, that the compensatory measures will bring about ecological improvement to these intertidal habitats and communities in Tawin - in their own words.

I can draft a response to the applicant's consultants based on the above and the instructions in your email, if you agree with this approach.

I hope this helps, though perhaps the best way forward would be a Skype teleconference (with you and Paul, not the applicant), if you are still unclear or would like further discussion. I am available every day between 16:00 and 18:00 (Dublin time).

Best regards,

Daniel

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On 08/11/2019 18:18, Kieran Doherty wrote:

> Hi Daniel,
>
> Apologies for the delay in getting back to you.
>
> I've since spoken to Paul, and we think we need further input from you as we would not have your level of expertise in methodologies to be employed in ecological surveys to know precisely what is wanted from the original point 10:
>
> - The Board have concerns that the monitoring programme for the intertidal habitats has some significant methodological errors, such as samples taken at different times of the year, with 5 replicas taken in Tawin Island (correct for statistical analysis), and only provide only two samples provided at Renmore (not correct). The results of the two samples are compared for analytical purposes in the report. The Board recommend that any inferred results are based on more consistent and robust data set.
>
> As the applicant is looking for guidance/clarity with regard to point 10, and has possibly misunderstood the concerns raised, it might be in everyone's interest if you could re-draft this point in order to make it clear to the applicant what is required and the level of testing required (if necessary) in order to address their sampling query:
>
> 4 transect lines at each of the 2 locations, Renmore and Tawin, will be sampled simultaneously.
>
> Samples to be taken at 3 points on each of the transect lines, High, Middle and Low Water levels .