

Eve O'Sullivan

From: Tara Higgins
Sent: 28 November 2011 15:54
To: Eve O'Sullivan
Subject: FW: Arklow dredge dump proposal comment from Coastwatch
Attachments: Coastwatch comment Dumping at Sea Permit Register Number SOOO2.docx

From: kdubsky@coastwatch.org
Sent: 28 November 2011 12:34
To: Tara Higgins; Donal Grant
Subject: Arklow dredge dump proposal comment from Coastwatch

Hi Tara and Donal

I thought I had sent you our comment over the weekend but perhaps from different computer as I can't see it now.

Today we made some amendments as some text wasn't totally clear.

So if you did receive an earlier version, please discard and use this one now attached.

Very best wishes Karin

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Coastwatch comment on Dumping at Sea Permit Register Number S0002-01
Request for Technical Amendment

26th Nov 2011

After consultation with local Coastwatchers, I would like to make the following observations and recommendations for our group. There is an extensive file on the EPA website with applications, technical amendments withdrawn and re- entered. We hope that we have not accidentally omitted any relevant document and welcome any corrections.

1. **Old EIA inadequate:** This is not just a technical amendment but a substantially different operation which is not adequately covered by the old EIA. The original Arklow harbour dredge EIA and permit were based on a different dredge method, and a 4 times smaller surface area dump hole dug in different depth of water and to a different depth.

2. **Queries arise which need to be answered:**

- 2.1 While the old license provided specifications for hole dimensions from size at opening to size at base, the amendment being sought doesn't provide as much detail. Is the 600m by 150 m the area opening located at the top or the base of the hole?
- 2.2 Where will the sediment removed from this beach length hole be stored?

2.3 The old license proposed using a backhoe excavator for dredging. The purpose of this was to limit, as far as practically possible, the disturbance **and** (dispersion of sediments). While the amendments seeks to use a trailer suction dredger instead, the applicant states in point 3 of the October technical amendment letter that the old mitigation measures will stay in place.

2.4 Noting that 'the pit depth proposed is 1.3 m, to be capped with 1.4 m **clean sand**' where is that sand going to come from?

The argument for placing the pit in the chosen site was that the area was historically contaminated. Consequently where is the clean sand going to be taken from? Impact of the clean sand removal from whatever source to act as dump cap needs to be included in the revised EIA.

3. **Dump ground depth:** The latest map showing water depth at the dump site is totally misleading as depth contours run only to 'less than 60 m'. How much less has to be deduced from other documents. The Arup calculations of the previous hole (which was not reaching as far shoreward as this new enlarged hole) were based on an average sea floor depth of 9.5 m. The new hole goes further towards the shore. A clearly marked depth map (at stated tide level - e.g. mean low tide) is needed.

4. **Response and responsibility:** The letter of objection from Mr Neil on the EPA website expressed concern about beach contamination. The answer from the port's engineers was:

'Studies carried out by independent consultants confirm the capped spoil will remain in the pit and will not contaminate beaches North or South of the dump site.

This stated confidence invites scrutiny. Its origins may be found in one of the Arup consultant conclusion re the old deep burial of contaminated spoil:

'In the absence of any significant wave action at the site, and assuming the 14 day recording undertaken to be representative of the general currents in the area, it is

predicted that there will be no transport of sediment from the site for the duration of the dredging operation.

The ARUP 14 day recording was done in calm summer weather and their prediction was dealing with a small time window – the duration of the dredge operation. When we read the Arup consultant model in detail, we find that they do try to cover other conditions. Their worst case scenario is for 1.8 m waves period of 11 seconds)– not the worst seen on this shore. The predicted sediment movement under those conditions was up to approx. 85 cm²/s/m. That is huge!

From local knowledge of this shore, there are indeed very large sediment shifts, especially in storms. An example of worst case scenario was the 1989 storm which took large junks of Arklow N beach dune away. After that Wicklow county council commissioned rock armour to be placed on the shore just landward of the proposed spoil burial hole. This rock armour was flattened by the sea in a very short time – contrary to projections by the then consultants.

Bearing in mind the much larger surface area now proposed, the new shallow rather than deep burial and the proposed burial pit extending closer to shore - it is now far more likely that contaminated material will reach the adjacent beach and/or wash onto the sea bed and make its way northward up the inshore waters of the Irish sea.

5. **The material to be dumped** is described by the proposer's agent as '*moderately contaminated from natural sources as distinct from industry. It is historical contamination arising from operations at Avoca Copper Mines*'.

We would like to caution that there is more going into the Avoca than leachate from a copper mine. This includes the town's sewage, the leachate from the landfill site and a boat yard on the water's edge where you can see the old paint flakes on the silt surface below. Also there are a number of factories which discharge effluent into the Avoca river estuary. Among past discharges the most worrying from sediment contamination point of view was the oil which as port records should show leaked out from one South bank source for months. Among the potential sources where we have no information is the now defunct mercury soap factory. The company discharge was not checked once in over a decade of operation and no self-monitoring results are available. Pollution of sediment from some these sources may be very localised and may not have been picked up in the sediment samples taken for analyses.

6. **Ecological impacts:** While we have no extra information on the proposed dumpsite sea bed, we are aware of a very diverse benthic ecology within 600m just NW of the proposed dumpsite and extending up the Wicklow coast. At low tide we have observed kelp beds and a diverse rocky shore biota including clumps of mussels on rocks and ray and skate eggs washed up. We urge that the revised EIA (if this disposal method continues to be pursued) covers that area and the potential impacts.
7. **The potential effect on tourism** does not appear to have been taken into account. The new hole proposed is the size of an average bathing area – 600 by 150 m and happens to be placed right in front of the Arklow N bathing beach which also features a busy hotel, caravan park and several B&Bs. The impact of the proposal to excavate and dump - with highly visible movements and sediment disturbance in the Easter holidays and summer term (when most schools do their fieldwork) needs to be appraised.

Conclusion: Based on all of the above, it is our opinion that the risks and down sides of this proposed amended method of contaminated spoil disposal for Arklow harbour are too high. We note that:

- Once the capping of a large shallow pit erodes in storm conditions the contaminated material will wash out and the situation will be uncontrollable or too costly to control.
- The reason for burial rather than treating the contaminated spoil are financial, but we are not sure that all costs have been counted. How is the monitoring cost calculated? How many years are included?
- Bearing in mind that this won't be the last bit of dredging and pollution is still coming down the Avoca – would a Brussels Port sediment de contamination plant be worth considering? It would create local employment
- From first incorrect sediment depth for disposal hole assumptions to misquote of consultant statements on sediment transport and omission of obvious pollution sources, this is being handled in an over optimistic manner which will require a lot of very close and costly monitoring if it does go ahead. Is there sufficient EPA staff to do that?
- Current predictions of climate change all point to increased storm frequency and intensity.
- Liability for a decision to go ahead. We know the harbour sediment is so polluted that dumping at sea was not allowed by law or water policy. In terms of liability – who will be responsible if it is licensed now and is washed out in a storm a year later?
- The last previous burial of contaminated material at sea we know off was off Dublin Bay. There are no monitoring results available to judge how that went. This raises doubts about transparency and public information, implementation of monitoring conditions and predictions for this Arklow site.
- A new port policy is due out within weeks. A wider appraisal of harbour needs and hence dredging requirements should wait until this is published. Arklow is in an unusual position. While it has a v long harbour and boat tradition, it is not a vital port which has to be dredged or else trade comes to a standstill. There is a deep water berth in the same town – belonging to CRH which surely could accommodate a life boat as a short term measure.

Recommendation: We urge the EPA not to grant this technical amendment of the license as it amounts to agreeing to digging an expensive shallow burial ground and hoping that there wont be any storms to wash it out again. Under OSPAR and EU water law such likely dispersal of polluted material further into the marine environment is to be avoided. If it does go ahead the long term monitoring will be very costly.



Written by Karin Dubsky - national coordinator Coastwatch, with editorial comment by Dr Annetta Zintl. Local names are not listed as not all have given permission.

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