Submission No 772

From: To: **Grainne Power** Cc: Licensing Staff

Dublin Port Company S0024-01 Dumping at Sea permit application Subject:

Date: 21 March 2016 14:52:01

Attachments: image001.png

OBSERVATIONS ON DAS PERMIT APPLICATION S0024.docx

Hi,

Please find enclosed my observations on the additional information supplied by the applicant.

Regards

Peadar Farrell

From: Grainne Power [mailto:G.Power@epa.ie]

Sent: 23 February 2016 09:42

Subject: Dublin Port Company S0024-01 Dumping at Sea permit application

Dear Sir/Madam

Dublin Port Company, Port Centre, Alexandra Road, Dublin i has applied to the EPA for a Dumping at Sea permit in respect of the Alexandra Basin Redevelopment Project, Dumping at Sea permit register number S0024-01.

Significant Further Information has been furnished in respect of this application and is available for inspection on the Agency's website www.epa.ie or at EPA Headquarters, Johnstown Castle Estate, Co. Wexford.

Any person wishing to make a submission or submit observations in respect of this further information should do so in writing to the Office of Environmental Sustainability, EPA Headquarters, P.O. Box 3000, Johnstown Castle Estate, Co. Wexford or by email to licensing@epa.ie by 22 March 2016.

Submissions received will be forwarded to the applicant for comment and will be published on the Agency's website www.epa.ie.

Yours sincerely

Graime Power.

Grainne Power

Programme Officer Environmental Licensing Programme Office of Environmental Sustainability EPA, PO Box 3000, Johnstown Castle Estate, Co Wexford **Y35 W821**

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OBSERVATIONS ON DAS PERMIT APPLICATION S0024-01 "Significant further information " Notice February 22rd 2016.

1-0 Introduction.

I am a person who Scuba dives regularly in Dublin bay throughout the year and have been doing so since around 1980. Since the public sewers stopped discharging raw sewage into the Bay diving there can be very pleasant and enjoyable with reasonable visibility thought out the summer Months and also during frosty calm spells in the spring. However follow dredging and dumping inside the Bay the visibility in summer can go down to virtually zero with torch light needed for any visibility below 7 to 8 meters. There are 2 main recreational diving areas in the Bay, Howth around Ireland Eye and around Dalkey Island and the Mugglins.

It's very disturbing to read the applicants supporting documents that show models of the plume from dumping only extending a few 100 meters because we know that it completely blocks out all sunlight over a huge area and certainly down as far as Dalkey Island. We know that their Moderling is not correct but how do we prove it.

Another worrying aspect is the coating of silt or "dust "that covers every rock, piece of sea weed and every crab and lobster following dumping. After dumping as a diver lands on the Sea bed a plume of silt rises up, ditto from everything touched. Also disturbing is that this same silt is the substance shown in the lab analysis as inert black smelly mud and that it is contaminated with heavy metals.

There was NO effort at all by Dublin Port to seek out either a land fill site or an alternative Marine dump site to dispose of this material.

Nothing will take away from the fact that this is an application for a dumping licence inside a SAC and a Biosphere and no matter how its "dressed up" the result would be that contaminated estuarine river mud would end up on the sea floor.

From an earlier unsuccessful application for a subsea Sewer outfall we learned that landfill sites were available and at a similar cost to dumping at Sea. Dublin Port also refuse to recognise the Diving Community who are the people who see first-hand the damage that dumping causes to the Marine environment and know of the years it takes the sea in Dublin Bay to recover.

2-0 Changes to the planned dumping method at the dumpsite inside the SAC.

In their supporting documents care is taken not to show the Planned Fairway and the planned dumpsite in the one drawing. I have had to put both together in one drawing. This is crude drawing (see fig 1) but shows that the dispersive dumpsite is fairly and squarely in a direct line in front of the planned fairway. How many 1000's of tons of the dumped material will end back up the Fairway is unknown but as only 15% of the material remains on the dumpsite after 1 year (known fact from 2012 dumping) it must be significant tonnage.

The significance of the dump site location is even greater when one realises that the silting up of the Fairway would necessitate more maintenance dredging than if it were dumped elsewhere. This problem would be added to by every other dumping by others from other Projects (Howth and Dun Laoghaire). It's also so strange the fact that the dumpsite is centred in the middle of the main shipping lane in/out of Dublin,

Yet another amazing fact is that the shallowest part of the dumpsite is 12 meters

Yet another amazing fact is that the shallowest part of the dumpsite is 12 meters deep. They plan to add at least 1.5 meight with the CAD cells. So on completion the depth of the dumpsite at the shallowest would be 10.5 meters. It's reasonable to say that they would very soon have to excavate out at the dumpsite to maintain the 10 meters in depth that they seek in the Project.

Total in planned dumping by others and it's clear that the dumpsite inside the Bay as selected is totally unsuitable for the task, due to its location in the Shipping lane, lack of depth to receive new material, its location inside a SAC, due to its total dispersive nature and to its location inside a Biospheres. There may yet be another request to dump there from the new Greater Dublin Drainage scheme at Clonshaugh.

This dumpsite is the cheapest possible location to dump their waste in and probably the least suitable location for all the above reasons.

We <u>only now</u> learn from the new information submitted that DPC plan to start maintenance dredging and dumping in summer 2016, followed by the (ABR) Project dumping in Autumn 2016, followed again by maintenance dredging/dumping in summer 2017 and (ABR) dumping again in winter 2017, 2018,2019 and 2020.

While all this dumping would be going on in probably gale force winds beautiful walls of sand are to be built on the sea bed 20mt below the surface on the dumpsite! The flow rate on the sea bed on the dumpsite is given as .3 to .4 Mt@sec

If the above is not enough we learn of Dun Laoghaire Harbour's plan to dump 710,000 Tons of dredged material in the same dumpsite plus Howth Harbour some more dredging and broken rock. Who or what controls where all this is placed, what precision methods of dumping do they plan?

In all the earlier documents (EIS) little attempt was made to hide the fact that all life on the Sea bed would be eliminated in both the dredge areas and the dumpsite. But great emphasis was placed on recovery times of these areas.

This new information points to probably 4 to 6 years of continuous dumping; there will be no recovery time, the EIS is no longer relevant with the new plans and scheme of things. Where is the new EIS?

As pointed out in their EIS the Dumpsite is dispersive. Facts we do know In 2013 at the look back of the 2012 Dumping regime 15% of the dumped materials were still in situ. Or 85% of the materials had dispersed across Dublin Bay.

We are being asked now to believe the following:

The new information says that they plan to dump 500,000 tons of inert black smelly mud (see Lab report) (Class 11), this is contaminated material.

They claim that this material <u>will all stay on the dumpsite</u> and it's to be covered by sand and gravel. <u>No examination has been done to see if the 2012 capping layer is still insitu</u>, or more important that the contaminated material is still there. I believe it's long gone, those sand banks can move, build up many meters high and disappear in a season. (We see this around the shipwrecks out on the Banks every year). This claim should be rejected as unbelievable.

Sand and gravel is described as any material greater than .6mm according to the supplied information. It's clear to me that there are little or no gravels available from the borehole information. Sand greater than .6mm would be most suitable for plastering/rendering my garden wall; it's a country mile away from being gravel. This should be rejected as incorrect information.

The dumpsite has been in use for over 100 years we are told and it's always empty as the flow is so strong there combined with the wave action across the Burford Bank it scatters the dumped materials all into Dublin bay.

Its mind numbing to think that this is planned for a S.A.C, a <u>Special Area of</u> Conservation and a Biosphere.

Comments on Revisions to the Natura Impact Statement February 2016

Item 3. Appropriate Assessment screening of the project.

2.1 "It is envisaged that the dredging of uncontaminated material will be carried out during winter months only (October to March). The rate of dredging of the main channel is determined by the capacity of the disposal site to accommodate the material deposited and the length of dredging season, typically six months per annum. Considering these two constraints, it is estimated that the main channel dredging could be completed, given favourable conditions, within six years. The preferred disposal strategy is to deposit the dredge material on the existing dump site to the west of the Burford Bank (see **Figure 2.5**)."

This statement at the very start of the Document ignores that there is dumping planned for the summers of 2016 and 2017 plus the Dun Laoghaire Port dumping planned for a later summer period also.

Where is the capacity of the dumpsite explained or examined? It is referred to but not explained. I can only assume its capacity is the speed which it can shed/disperse all the dumped materials all over Dublin Bay?

"2.1.2.1 Dredging of Class 2 sediments within the inner Liffey Channel

An Bord Pleanála (ABP) granted planning permission for the ABR Project on 8th July 2015 (PL29N.PA0034). Condition 5 of the planning permission specified the following *Condition* 5

The developer shall ensure that over-spilling at the surface of the dredger is avoided for all dredging activities within the inner Liffey channel.

Reason: To minimise the levels of suspended sediment in the River Liffey from the dredging operation"

Why should they bother as they plan to dump the Summer Dredging Campaign of 2016 and 2017 by open bottom (bombs away) barges all over the dumpsite? The water in the Bay would then be grey brown with no light penetrating.

"2.1.2.2 Dumping and capping of Class 2 sediments

Uncontaminated granular material (gravel and coarse sand) dredged from within the capital dredging scheme's footprint will be used to form a series of bunds, or Confined Aquatic Disposal (CAD) cells, at the licensed offshore disposal site located to the west of the Burford Bank.

The gravel and coarse sand will be dredged using a conventional trailer suction hopper dredger, or equivalent, and accurately placed on the seabed by conveying the dredged material through the dredgers pipeline working in reverse with a specially fitted head to spread the material at, or close to, the seabed. Alternative methods may be employed such as a gravity fed downpipe (tremie) or a closed calm-shell bucket but in all cases the dredged material will be confined in order to accurately place the material on the seabed.

This placement technique will be used to form a series of bunds of approximately 3.0m in height. The base width of the bund will be approximately 9.0m wide with gentle side slopes of 1 in 1.5."

This work is planned for winter when the wind is greater than Force 4 over 60% of the time. The boat/ dredger would be parallel to the waves in anything up to a Force 9 while dropping the dump materials down a steel pipe attached to the boat onto the sea bed. The pipe would be swaying with the dredger but the sway 20mt down on the Sea floor could be 20 times greater than the swaying on the surface.

They wish us to believe that they will build walls of non-compacted sand on the Sea floor. I do not believe it can be done especially with the tidal flow rate over the dumpsite.

This would be the first time in 100 years that material dumped would stay insitu on that site.

They ignore that the dumpsite is sloping back toward the land 8mt across its width.

They ignore that the sea bed there would be made up of non-compacted sand left there by the previous summer dumping regimes.

When one has experienced the speed and pull (strength) of the tide in Dublin Bay the idea of such dumped materials remaining insitu is not believable.

"The integrity of each capped CAD cell will be checked using a Remote Operating Vehicle (ROV)."

This is totally impossible to achieve. The cells (CADs) construction in the shape of potato waffles are planned to be constructed during year 3 of the Project. After continuous dumping at the location for 3 years the water would be pitch black at -10 mt and much worse at -20 mt, a camera would not see anything for maybe 6 months after the cessation of dumping and only then if there was also a prolonged period of calm weather with no easterly wind.

What must be understood is the Mud/silt/Sand does not disappear or evaporate. It stays inside the outer bank surrounding Dublin bay. In moves back and forward with the tides daily. In calm periods during the summer it can all settle down to the sea floor only to go back into suspension as soon as the next storm hits.

"Dredged Class 2 material will be transported from the inner Liffey channel to the licensed offshore disposal site in either a trailer suction hopper dredger or barge. The dredged material will then be accurately placed on the seabed within the confines of a CAD cell by conveying the dredged material through the dredgers pipeline working in reverse with a specially fitted head to spread the material at, or close to, the seabed in order to minimise resuspension of the dredged material. Alternative methods may be employed such as a gravity fed downpipe (tremie) or a closed calm-shell bucket but in all cases the dredged material will be confined in order to accurately place the material on the seabed and to minimize losses to the water course the placement operations."

This is the contaminated smelly black mud of the lab report. A pipe from the barge is supposed to lower this mud down and inject it into the cells. This is during winter out in the Irish Sea with the Barge rolling and pitching in the waves. This is totally and completely unbelievable.

They also want us to believe that they could cap the Cells with sand and gravel, this material being described as particles greater than .6 of a single mm. There are little or no gravels available to them. The test holes prove this fact.

I disagree completely with the Conclusions given, I disagree and see no use for the unexplained mitigation measures given, all fantasy with no check on or control once a permit is issued.

Why O why for the first time in 100 years of dumping would such fine dumped materials stay on the sloping side of a sand bank, the Bank which by its nature is constantly on the move building, depleting and rebuilding.

Should the site be monitored for 5 years it can only tell us when the materials disappears (useless). If it all disappears into the Bay on year 6 is that ok?

All the above is Fantasy dreamed up to be allowed do something that is wrong, and will always be wrong and should not be allowed under any circumstances.

" 3.4.3 Mitigation measures for the Rockabill to Dalkey Island cSAC

Mitigation measures in relation to marine mammals were proposed on the application (and consolidated

at oral hearing) for planning permission (An Bord Pleanála Ref: PA0034). Having considered the matter,

in addition to the mitigation measures proposed in the application documentation, by way of Conditions

Nos. 8 and 9 attached to the grant of permission, ABP has required the following measures are -"

The new proposed method of dumping extends greatly the time and noise disturbance by dredgers over the dumpsite. This is a known feeding ground for Porpoise (who are protected under the SAC) and should not be allowed.

The new information that dumping new would be continuous for 6 years without any break at all would have the effect of keeping Porpoise away from their feeding ground for over half their life span. It's remarkable to think that the purpose of the SAC is to conserve the areas for Porpoise, could any reasonable person allow this?

"(c) The developer shall make provisions to ensure proposals for an adequate number of suitably qualified marine mammal observers for the duration of piling and dredging in order to ensure satisfactory monitoring."

This is untrue; they propose to dump 24/7 day and night and in all weathers. An observer on a barge cannot see a mammal in darkness or in waves of greater than Force 4 (which is 60% of the time in the winter). They do not plan for satisfactory monitoring, they propose to ignore best practise. A throwaway line such as the one in italics above is useless.

EPA what is adequate? Best practise I would suggest.

"The developer shall deploy a minimum of four hydrophones in Dublin Bay to assist in the detection of marine mammals within the 1,000 metre and 500 metre exclusion zones for piling and dredging, which shall be used in combination with all of the measures referred to in (a) to (c) above:"

In a busy shipping Port with constant movement of very large Sea going vessels plus fishing, recreational and ancillary Port traffic listening for the faint sound of Mammals is totally a waste of time, none would be heard. The sound from Piling can travel underwater for 10 Km. They plan 2-3 Piling rigs and 2-3 Dredgers plus normal Port traffic, nothing else would be heard underwater.

3.5 ASSESSMENT OF POTENTIAL IN-COMBINATION EFFECTS WITH OTHER PLANS OR PROJECTS

PLANS OR PROJECTS

"Potential impact on benthic communities of the dumpsite due to sequential winter, summer, winter capital dredging campaigns

In respect of benthic ecology, there will be a cumulative effect associated with the proposed Howth marina extension dredging disposal operations if disposal occurs between April and September; the effect is to extend the period of benthic and epibenthic community disturbance at the disposal site during the one year in which dredge disposal from Howth may take place."

"For the reasons set out, and when the mitigation measures specified are implemented, there will not be an adverse effect on the conservation objectives of any European site arising from cumulative effects between the proposed DPC maintenance dredging disposal operations in combination with the ABR Project and/or the Dun Laoghaire Harbour Company proposed development and/or the HYC development."

So the planned constant dumping for 6 years will have no effect on the Bay or the 6 years disturbance of the Porpoise(inside a SAC set up to protect them) will have no effect. Is there anything that RPS could find a problem with, I reject that throw away conclusion.

3.6 RESIDUAL EFFECTS ON THE CONSERVATION OBJECTIVES OF NATURA 2000 SITES,

"Additional environmental impacts as a result of the revisions to the dumping methodology, with mitigation measures in place, are not likely. The revised dumping methodology which will reduce losses of Class 2 silts in fact provides additional positive mitigation for the protection of the marine environment."

This is completely untrue, the greater time spent unloading the dredgers would have a huge impact disturbing the Mammals which the SAC was set up to protect.

Notional vessels are considered for sound impact but nowhere do I see the cumulative sound of 3 piling hammers going 24/7 for nearly 4 years plus how many dredgers are now needed with the slower noisier unloading now being planned.

They strangely admit above that their new dumping plans "which will reduce losses of Class 11 silts"

I would like to suggest that they have no right to dump any "Class 11" this is contaminated, smelly, black, inert mid according to the lab analysis. The above remark suggest that they should be allowed dump this material as long as they try to reduce the losses to the Bay effecting its sea floor dwellers, swimmers and divers and indeed its fish eaters.

3-0. OTHER EFFECTS OF USING THAT DUMPSITE NOT ADDRESSED.

 The silting up of the Blue Lagoon between the Bull Island and the Howth road/James Larkin road will be greatly increased as a portion of dumped material ends up there.

- It's a known fact that the Bull Island is growing but it has not been examined how much of this is being caused by Man dumping in this dumpsite.
- The test pits referred to in the new information: It should be noted that samples could not got up beside the East Link Bridge because the ground was too hard. The ground there is rock as the East Link bridge is founded on Limestone rock and the bridge foundation is piled down 10m to 14 m into the solid rock. This is very important to know as its likely mid Project that DPC could be back for permission to blast out rock and dump it onto the dumpsite.
- The Project contains a huge amount of sheet piling which must be driven into the River bed. Normal design depth for Sheet piling is twice the working depth. That is at 10m water depth driving to -20m, or future proofing and for 15m depth driving to -30m. It's important that the EPA inquire from DPC, should they hit rock during the sheet pile driving (which they certainly will) what are the planted solutions and will it affect, the timescale, the underwater noise, will blasting be necessary, will rock hammers be deployed, where would such materials be dumped.
- Should this information not be clearly brought out now before any work commences both the EPA and DPC would be going blindfolded into the Project. Then the problems mentioned above would have to be addressed in a fire fighting manner mid Project.

In conclusion the new methods of dumping will increase the disruption of the SAC.

The recovery time for sea floor life once of huge importance in the EIS is no more.

The contaminated materials will all end up in Dublin Bay and in the food chain.

Mitigation measures and reduced losses of contaminated material should not even be discussed in a Special Area of Conservation. I urge you to not allow Dublin Bay to be used for such a controversial process.



Figure 1. Showing the relationship of the fairway to the proposed dumpsite smack in the middle of the main shipping lane in and out of Dublin Port. A large proportion of material dumped there would end up in the Fairway.

