Port Botany Expansion
Community Consultative Committee

Date: 10 June, 2008
Meeting number: 14

Attendees:
Paul Pickering (PP) – Community Representative
John Burgess (JB) - Community Representative
Neil Melvin (NM) - Community Representative
Neil Brener (NB) – Business Representative
Bronwyn Englaro (BE) – Randwick City Council
Paul Shepherd (PS) – City of Botany Bay Council
Sandra Spate (SS) – Minutetaker
Kamini Parashar (KP) – Sydney Ports Corporation
Marika Calfas (MC) - Sydney Ports Corporation
Paul Jerogin (PJ) – Sydney Ports Corporation
Linda Armstrong (LA) – Baulderstone Hornibrook
Vince Newton (VN) – Baulderstone Hornibrook
Margaret Harvie (MH) – Baulderstone Hornibrook
Quentin Pitts (QP) – Baulderstone Hornibrook
Angus Northey – Hyder
Glenn Homes (GH) – Hyder

Apologies: Roberta Ryan **,** Nancy Hillier, Peter O'Leary

Not present:

Item	Issue	Action	By whom	When
1	**Minutes of the last meeting**			
1.1	Paul Jerogin as acting chair introduced Glenn Homes noise consultant with Hyder to the meeting.			
1.2	<u>Minutes of the last meeting</u> In item 1.6 comments attributed to NM, regarding location of noise monitors should have been attributed to NH. Action should also read SPC investigating one more location for a noise **monitor** (not barrier).	RR to change minutes.		
1.3	<u>Business arising from the minutes</u> A flow chart indicating relationships of the BH-JDN Emergency Response and Incident Management Plan to the Port Botany Emergency Plan and the Sydney East District Disaster Plan was re-issued to the CCC.			

	In response to the action regarding location of an additional noise monitor, it was reported that an additional monitor will be included on Bunnerong Rd near the corner of Botany Rd.			
2	**Comments on Penrhyn Estuary offset package**			
2.1	PP sought clarification on the nature of the offset package. MC responded that the Offset Package identifies additional funding that Sydney Ports would be required to make available should the bird habitat and saltmarsh habitat works associated with the habitat enhancement be unsuccessful. PP noted that it had been reported seagrasses were dying on the Botany side and suggested that there were no guarantees for success of the planned seagrass plantings. He suggested that the flow of sewerage into the Mill Stream drain may have been a factor for the die off. He asked if as part of the package, seagrass could be enhanced at a different location. JB reported that discussions were taking place with a number of authorities and councils regarding offset packages for seagrass. MC agreed that seagrass off Foreshore Beach is declining. The exact cause of this is unknown but is not directly related to SPC operations... PP suggested that during relining of sewerage outlets raw sewerage has fed into the bay in the area and this could be a cause of seagrass destruction. JB replied that it was likely to be due mainly to wave action and sand/sediment build up over the weed beds and the absence of natural water flows. He suggested that he had reservations about the success of the seagrass plantings unless peak stormwater flows were addressed. MC noted that remaining seagrass was in remnant patches only and no longer a seagrass bed. The proposed beds within the flushing channel were likely to			

	be successful as they would be more sheltered than their current location. PJ suggested the issue of sewerage flow into the Bay should be taken up with Sydney Water.			
3	**Presentation and discussion on Odour Management Plan**			
3.1	The presentation by BH-JDN (QP) included: • Background information regarding geotechnical reports and the nature of the majority of odours as Hydrogen Sulphide. • A map of odour locations • An outline of 87 test cores taken across the site and the likelihood of interaction with 7 slight odours, 4 moderate odours, and 4 strong odours. • An outline of Odour Management procedures including resubmerging sediments; placing clean fill over stockpiled material. • An outline of odour monitoring procedures • An outline of reasons why odour masking agents would be unlikely to be used			
	Questions and discussion			
3.2	PS asked whether there was a correlation between odour locations and acid sulphate soils, and if this were the case, would the treatment be to bury the soils quickly. QP replied that there is a correlation between odour and acid sulphate soils. There are also odours in Botany Bay related to decomposing organic matter and sewerage outfall overflows during significant rain events. The dredgers are aware of the locations of the acid sulphate soils. The soil can be put under water immediately or neutralised relatively easily. PS asked whether there was a chance of not having the volume of clean soil to cover the acid sulphate soil.			

	VN replied that this was unlikely to happen. 3D models of geotechnical investigations have been made to stage the work. Acid sulphate soils are generally located in clays and deeper sediments. Clay would not be going into the reclamation work.			
3.3	PP noted that as SPC is taking control of an area of the beach they should work in with Sydney Water. Sydney Water should advise SPC/BHJDN about the potential for contamination in the beach area. At many beaches signage warning of possible pollution is erected. PS noted that Beachwatch samples water at Foreshore Beach.	SPC will investigate working with Beachwatch regarding signage at the beach.	SPC	
4	**Presentation and discussion on Acid Sulphate Soils Management Plan**			
4.1	The presentation by BH-JDN (QP) outlined: • The purpose of the Management Plan in identifying possible areas of concern; evaluation of potential impacts associated with construction; provision of preventative and control measures during and after construction; provision of on site personnel with sufficient guidance and work instructions; addressing OH&S of workers. • It outlined what Acid Sulphate Soil is • Goals of Soil and Water Management Plan • Legislative requirements and guidelines • Key issues including training of staff to recognise Potential Acid Sulphate Soils • Locations of Potential Acid Sulphate soils in the work area • Mitigation measures It was reported that an expert consultant in Acid Sulphate soils is being used. Examples of scenarios for emergency response were provided to the meeting.			

	Questions and discussion			
4.2	PP asked what the ideal ph measure is and what are the main concerns should measurements occur outside this. QP replied it was between 6.5 and 8.5, and that very acidic water can kill fish. JB noted regular fish kills in the Richmond River from Acid Sulphate Soils. He suggested that while the silt curtain would exclude sediment, acid water could travel through it. QP reported advantages of the site with seawater having a ph of 8.5, and calcium from shells in the area and sand will help neutralize any acid soils.			
4.3	PS asked whether dredging staff had sufficient experience with acid sulphate soils to identify them as much monitoring involved visual inspection. VN replied the Dredge Masters would have come across it often and would be skilled in identifying it. QP added that regardless of experience all dredging staff will be trained in this aspect.			
4.4	PS noted the plan wasn't specific on the regularity of monitoring. QP reported that soil testing would occur daily as well as continuous monitors. PJ informed the CCC that information on monitoring will be available through reports to the DoP.	BH to make reports available to CCC on a regular basis.		
5	**Presentation and discussion on Night Time Noise Management Protocol**			
5.1	The presentation by BH-JDN (AN) outlined: • The background to the Night Time Noise Protocol • Key issues including noise reduction measures and regulation of noise levels as part of the DECC license • The proposed timeframe for night time activities • Noise modeling and night time			

	noise assessment • 3 night-time scenarios including worst case scenario • Mitigation measures			
	Questions and discussion			
5.2	PS asked whether dredging and reclamation activities were the only 24 hour work activities. MC replied that this was the case, unless application was made for a specified isolated activity. VN advised some other activities such as the delivery of oversized materials for say the pedestrian bridge would also be out of hours however this is also based on an application process.			
5.3	PS asked whether SPC was looking at an independent verifier for noise modeling as modeling exercises are open to a range of interpretations. MC replied that they wouldn't be as there is a defined noise limit which the contractor must not exceed, irrespective of the model outcomes.			
5.4	PS asked what happens in a worst case scenario where the modeling is wrong and noise exceeds the 5 decibel limit. VN expressed confidence in the modeling. If problems occur achieving night limits equipment is examined and adjustments made to the equipment. MC reported that noise levels emitted from the dredge are relatively low.. Most noise would be from land based equipment e.g. bulldozers. It is critical for dredges to operate continuously. If land based equipment exceeds limits mitigation measures will be put in place. GH indicated that there would be verification of modeling results.			
5.5	NB asked whether work stops immediately when noise levels exceed the limit. AN reported that monitoring could be the result of a complaint, routine monitoring or requested by DECC. If exceedances occur, the Environmental Manager assesses the source of the			

	noise and acts to reduce the level of noise. JB asked whether monitoring occurs 24 hours a day. If someone rings the hotline is monitoring done immediately? AN replied that attended monitoring is undertaken, rather than 24 hour unattended monitoring, so that construction noise, environmental noise and weather conditions can be noted. VN replied that when a complaint comes in it triggers an investigation process to identify the source and level. The complaint has to be responded to within 2 hours, reporting on the source and the result. LA clarified that the complaint may not be able to be closed out in that time but options and possible solutions are discussed and agreed to. The complaint may stay open for a number of days until a resolution is reached to the satisfaction of all parties. . JB indicated he thought there would have to be some reliance on the DECC to say change operations or shut down in the event of major exceedances. PJ noted license limits, the need to operate within limits. If there is a breach of license, actions have to be modified to bring them within compliance. Secondly there is a need to manage the community. Complaints have to be reported to SPC. QP noted if a noise exceeds conditions of approval it has to be addressed and/or modified immediately. PS suggested the CCC needs to look at monitoring site results to ensure adherence to the management plan. LA noted that a thorough investigation of information provided by complainant takes place, however, the more information that is given at the time of making the complaint the easier it is to commence investigations. Site diaries are kept to identify possible sources of noise, even if these are likely to be from work from another site and/or works not related to BH-JDN			

	JB noted the runway extension may be a source of complaints.			
5.6	NM asked whether the 1800 number would be distributed to nearby residents. LA reported a widespread distribution of the newsletter (to approximately 12,000 residents) and cards with 1800 number. PS asked whether reaction times would be different if one person complains or 5 or 6 people do. MH replied that there is a 2 hour maximum time for BH to respond, only if the complainant chooses to take that option. LA noted that she hands over the complaints line after hours to one main person on site so patterns can be quickly identified and subsequently addressed.			
5.7	Comments for the Odour Management Plan, the Acid Sulphate Soils Management Plan and the Night-Time Noise Protocol are due **by COB June 25**. If CCC members need further clarification they should contact LA			
6	**Update on construction activities**			
6.1	Presentation by BH-JDN (VN) A timeline for construction activities for May-August was distributed • The approval for site establishment was received on 23 May 2008 and work has commenced. Including the clearing of vegetation and carpark modifications. • Temporary visual barriers placed on Foreshore Beach • Construction of a temporary bird roost • Temporary recreation boat channel			
	Questions and discussion			
6.2	JB asked what a temporary bird roost is. AN responded it was temporary compensation of roosting habitat, for			

	loss during reclamation, it is a 600 sqm area.			
6.3	LA distributed to the meeting Traffic Management Plan comments; Emergency Response Plan comments; Heritage Management Sub-Plan comments as well as a Q and A sheet on recreational channels, cards with the 1800 number and the first Project Newsletter. CCC feedback was requested on the newsletter.			
7	**Other Matters/next meeting**			
7.1	PS reported that as a result of discussion some months ago regarding groundwater impacts of both projects, Council has volunteered to host a joint meeting of the Orica CLC and the Ports CCC. PP requested Sydney Water and Sewerage be invited to the meeting as sewerage overflows at the western end of Foreshore Beach have an impact on water safety.	PS to forward agenda items for the proposed joint meeting to KP. KP to circulate agenda to CCC members.	Botany Council SPC	
7.2	LA reported advertisements would be appearing in the Southern Courier in week commencing 16 June and in the July edition of the AFLOAT magazine regarding the temporary navigation channel. Public displays outside IGA on Botany Road, Botany on June 26 and 28 are scheduled. A public information board will be installed in the next few weeks near the existing boat ramp and will be subsequently moved to the new boat ramp when it is completed.			
7.3	MH reported greyhound exercising at the existing boat ramp and asked for input on how to control greyhounds in the area. JB noted that a large number of dog owners took their greyhounds to the boat ramp each morning to swim them, and horse owners do likewise. They would be likely to continue to do this. PJ noted the SPC requirement to exclude dogs and people from the			

	Penrhyn Estuary area.			
7.4	JB drew attention to press reports that trailers would be restricted from Foreshore Rd. He expressed disagreement to the fact that no mention had been made to the CCC that there was a proposal from SPC to use a section of Foreshore Drive as a truck queuing area as was reported in the press. KP responded that this was only one of a number of options canvassed at a meeting. The press reported the most controversial suggestion. PS suggested that it was important that the new Port Neighbourhood liaison group become a forum for discussion of such issues.			
7.5	**Next meeting July 8, 3.30 pm.**			

These minutes have been endorsed by Sydney Ports Corporation in the absence of the Chair.

Acid Sulfate Soils Management Plan

Port Botany Container Terminal Expansion Project - 10 June 2008

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Purpose of Management Plan

- Identify possible areas of concern and sources of acid sulfate soils affected by construction.
- Evaluate potential environmental impacts associated with construction.
- Provide preventative and control measures during and after construction.
- Provide on site personnel with sufficient guidance when acid sulphate soils are encountered.
- Provide on site personnel with work instructions for excavation & management of acid sulphate soils.
- Address Occupational Health & Safety of workers

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What is Acid Sulfate Soil?

Acid sulfate soil (ASS) are a mix of low-lying coastal clays and sands that contain sulfur bearing compounds at concentrations above 0.05% in clays and 0.01% in sands. The soils are formed by the action of anaerobic bacteria on organic matter in the presence of seawater. Acid sulfate soils are stable in unoxidized state—but become a concern if exposed to air, resulting in the production of sulfuric acid by oxidation.

Acid sulfate soils fall into two main categories:

1. Potential acid sulfate soils (PASS)
2. Actual acid sulfate soils (AASS)

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DEFINITIONS AND ACRONYMS

Acid Sulphate Soils related acronyms and glossary

- **Acid Sulphate Soil (ASS)** soil containing iron sulphides deposited during either the Pleistocene or Holocene geological periods (Quaternary aged) as sea levels rose and fell.
- **Actual Acid Sulphate Soil (AASS)** soil in which soil sulphides are undergoing oxidation and producing more acid than the soils ANC, leading to a net acid generation.
- **POCAS** Peroxide Oxidisable Combined Acidity And Sulphate laboratory procedure.
- **Potential Acid Sulfate Soil (PASS)** soil that contains sulphidic material that has not been oxidised but poses a considerable environmental risk should oxidation occur
- **sPOCAS** Suspension Peroxide Oxidisable Combined Acidity And Sulphate laboratory procedure

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Goals of Soil and Water Management Plan

- Identify actual and potential acid sulphate soil areas on construction site
- Avoid oxidation of potential sulfate soils (PASS) wherever possible
- Monitor dredge sediments for PASS and longer term monitoring of stockpiled materials for evidence of acid soils
- Mitigate any impacts from oxidisation of PASS sediment through effective management measures
- No impact on surrounding stakeholders or the environment from PASS handling

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Legislative Requirements and Guidelines

- Ministers Conditions of Approval (MCOA)
- POEO Act 1997 (NSW)- Must not cause water pollution. Notify EPA (DECC) of any threatening material harm to the environment
- Contaminated Land Management Act 1997 (NSW)
- Water Management Act 2000 (NSW)
- Waste Management Act 2000 (NSW)

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Legislative Requirements and Guidelines

The management of acid sulfate soils will be based on experience and the following reference document.

Acid Sulfate Soils Manual, Department of Urban Affairs and Planning (August 1998)

- This manual was produced by the NSW Acid Sulfate Soil Management Advisory Committee and is the standard approach used by NSW government for acid sulfate soil management. DLWC and EPA/DECC recommend the use of this document.

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Key Issues

- Potential acid sulfate soils (PASS) are present within the dredge area and will need to be managed properly

- Penrhyn Estuary is considered to have a lower risk of containing PASS due to previous soil disturbance.

- Acid sulfate soils are not difficult to manage but need to be identified early and managed properly.

- Training of staff to recognise PASS will be a key issue and undertaken to ensure proper management throughout construction.

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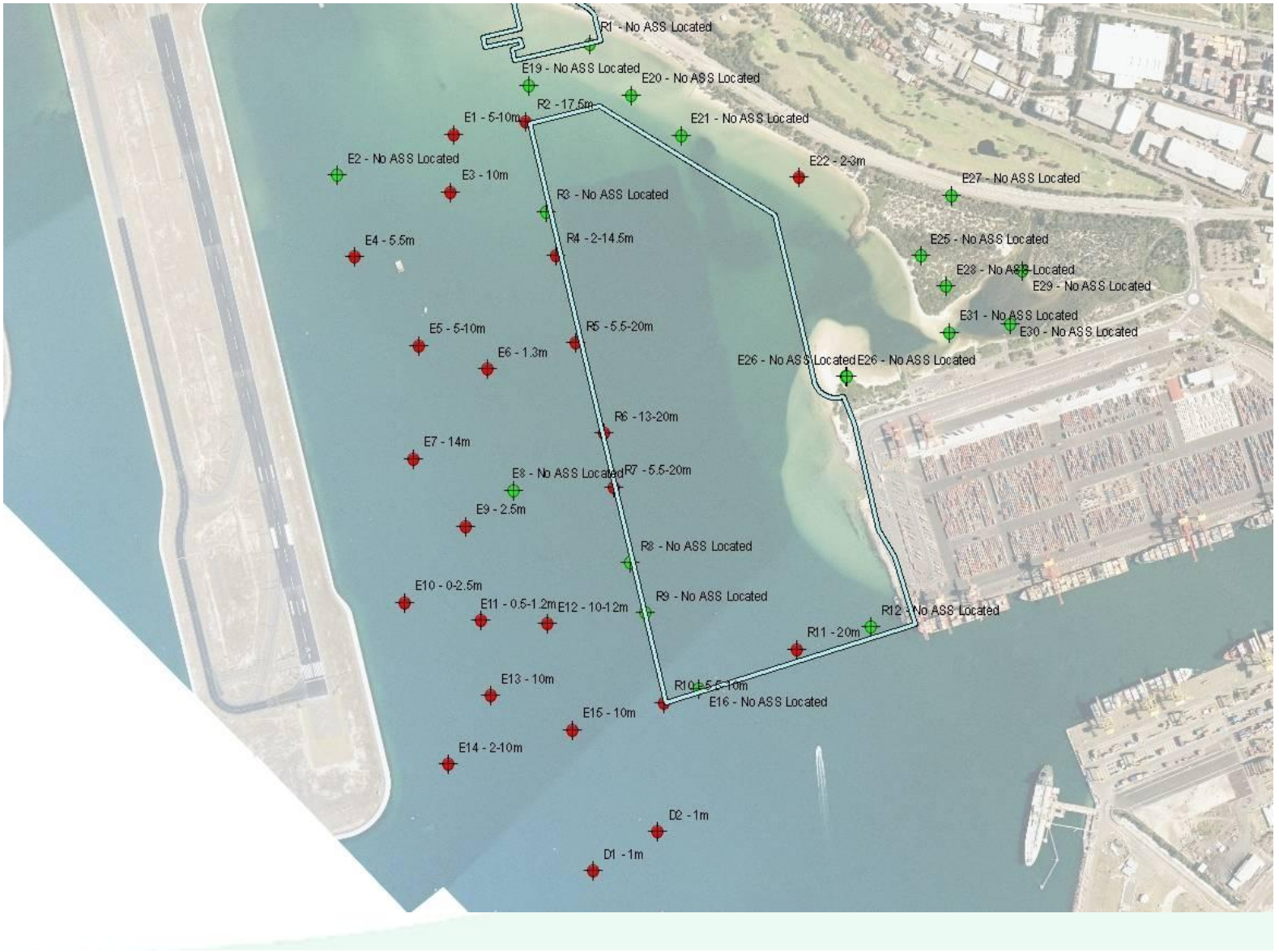
Locations of Potential Acid Sulfate Soils in Work Area



Mitigation Measures for Acid Sulfate Soil

Planning Stage

- Incorporate PASS location map into the dredge soil model.
- Assess risks associated with excavation of PASS and AASS prior to works commencing in Penrhyn Estuary
- Develop a procedure for treatment of AASS with lime, limestone or other neutralizing materials as per the Acid Sulphate Soil Manual
- Investigate all materials used in permanent features for their ability to withstand impacts from PASS, and design appropriately
- Limit sediment disturbance within Penrhyn Estuary.

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Mitigation Measures for Acid Sulfate Soil

Implementation Stage

- Dredge areas identified as containing PASS early and ensure sediment is submerged below 0m CD wherever possible.

- Ensure that dredged PASS sediments from grab or excavator dredging are not left exposed for longer than 5 to 6 hours

- Monitor dredged materials in the reclamation above 0m CD for sediment with high oxidising potential (Appendix 3 – Field Sampling Protocol). If found push identified sediments into the reclamation below 0m CD

- Minimise stockpiling of material from known PASS areas

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Mitigation Measures for Acid Sulfate Soil

- Monitor dredged materials in the estuary fill stockpiles for sediment with high oxidising potential. If found treat the materials with lime if oxidizing, or submerge sediment below 0m CD prior to the PASS oxidising

- Locate PASS stockpiles on an impervious layer that is able to contain any acid leachate and treat with lime or other neutralizing agent if required

- Dispose of treated AASS in the reclamation, rather than in the estuary

- PASS will be located using a GPS coordinate/elevation system. In this way, the material can be located if laboratory testing indicates PASS is present at levels that require treating

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Monitoring

- Field screening of sediment placed in reclamation above 0m CD and in stockpiles.
- Field testing is based on artificially accelerating oxidation
- Laboratory testing of stockpiled sediment based on field screening results using NATA lab and approved methods.
- Visual and smell surveillance by Sand Fill Master at all times.
- pH testing of waters at Foreshore Beach, Penrhyn Estuary, and new terminal area throughout project

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Emergency and Incident Response

Response to emergency situations will be undertaken in accordance with the Project *Emergency Response and Incident Management Plan.*

SEE HANDOUT FOR POTENTIAL EMERGENCY SITUATIONS RELATED TO ACID SULFATE SOILS

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Questions or Comments

ANY QUESTIONS OR COMMENTS?

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Night-Time Noise Protocol

Port Botany Container Terminal Expansion Project - 10 June 2008

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Background

- The Protocol is in addition to the *Construction Noise & Vibration Management Sub-Plan*. Information that was previously presented is summarised in this presentation.
- Night-time noise limits set by the MCOA are background noise ('Rating Background Level' – RBL) plus 5 dB.
- The MCOA permits dredging and reclamation activities 24 hours a day.
- Background noise monitoring was undertaken in March 2008 to calculate the current RBL.

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Key Issues

- Implementing measures to reduce noise wherever reasonable and feasible.
- Reducing alarm noise at night.
- The licence for the project from DECC will regulate noise levels and noisy activities.
- Information to and from the community and stakeholders.

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Night-time Activities

Night-time work component	Planned start	Planned completion
Concrete pre-cast yard and batch plant yard dredging & reclamation	September 2008	October 2008
New public boat ramp dredging & reclamation	October 2008	November 2009
East berm dredging & reclamation including noise berm construction	October 2008	December 2008
Bulk dredging	December 2008	September 2009
Bulk reclamation	December 2008	March 2010
Counterfort trench dredging and backfilling	January 2009	June 2009

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Night-time Noise Assessment

- Noise modelling looked at three different representative night-time noise scenarios:
  1. Night-time typical case
  2. Night-time worst case
  3. Night-time public boat ramp dredging and reclamation
- Noise from these scenarios was then compared to the RBL+5 criteria.
- The three night-time scenarios are presented in the following diagrams:

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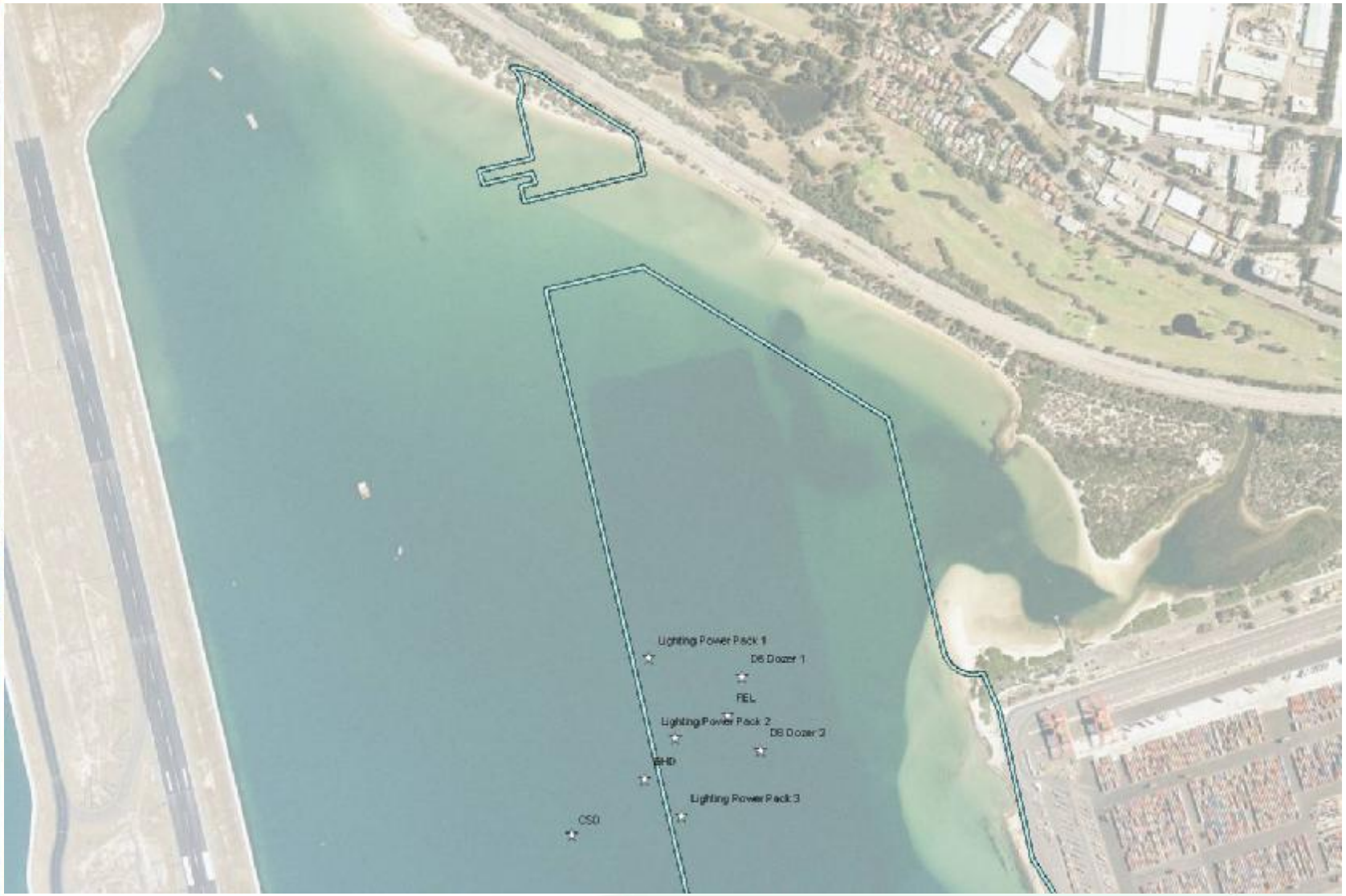
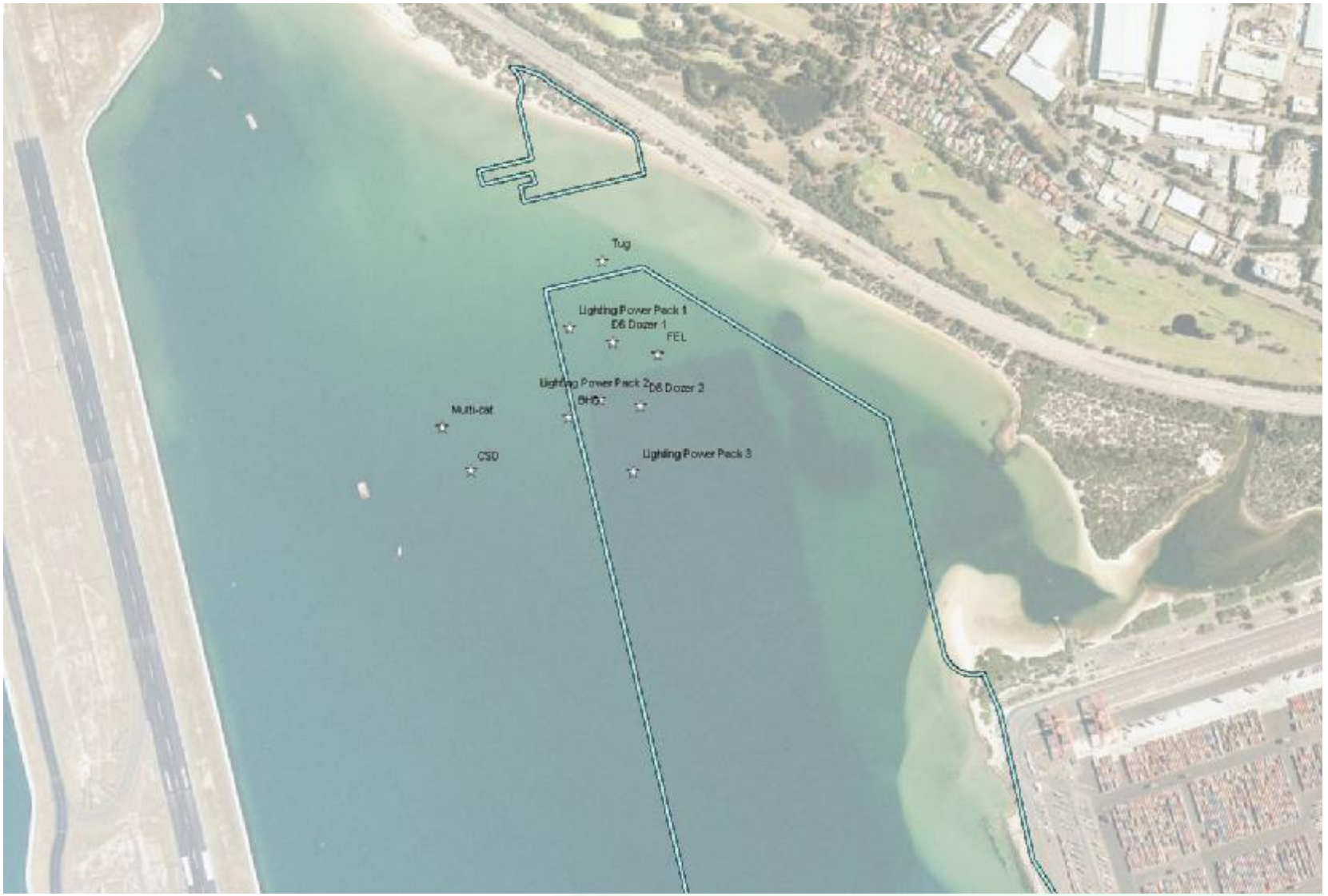
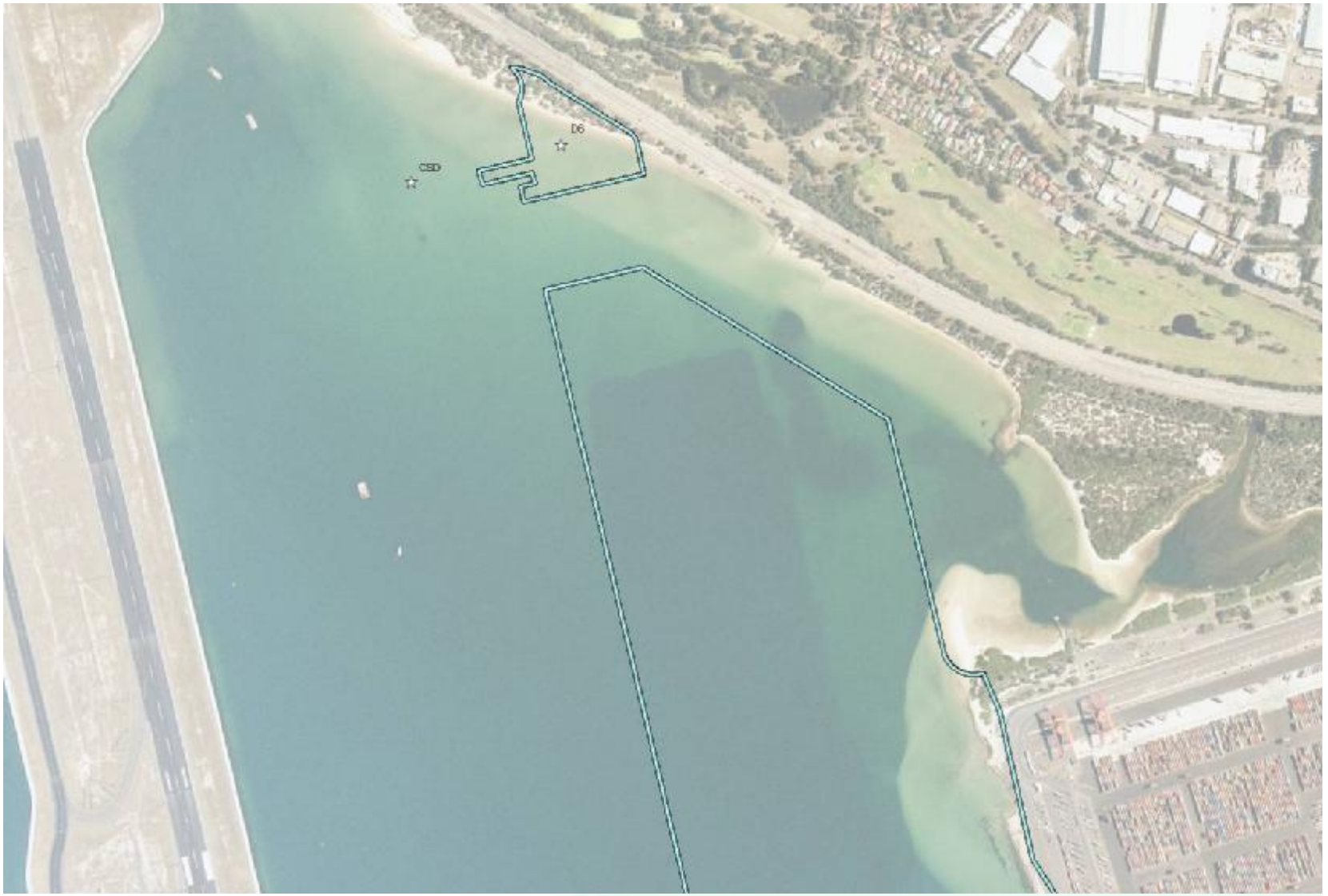
1. Night-time Typical Case



2. Night-time Worst Case



3. Night-time Boat Ramp



Noise Assessment Results

	RBL+5dB	RBL+5dB	Scenario 1	Scenario 2	Scenario 3
Receiver	Evening Limit (dBA)	Night-time Limit (dBA)	Night-time average case (dBA)	Night-time worst case (dBA)	Night-time public boat ramp works (dBA)
14 The Esplanade	50	43	34	38	40
3 Anniversary Road	47	42	36	42	42
34 Dent Street	50	43	39	**44**	35
2 Dent Street	50	45	39	42	35
74 Australia Ave	44	41	22	21	15
42 Jennings St	44	45	20	20	14

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Noise Assessment Results

- Modelling indicates that Scenarios 1 and 2 generally meet noise limits for night-time works, with controls described in the protocol in place.
- It also indicates one exceedance of one decibel during the worst-case emergency night-time scenario. A difference of one decibel is not perceptible to the human ear.
- Scenario 3 is equal to criteria at night-time, using noise controls and only one bulldozer.
- Modelling is conservative as it assumes equipment is operating at full power continuously.

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Mitigation Measures

- Creating a noise berm using dredged material to a level of five metres.
- Installing noise-reducing equipment and non-tonal reversing alarms on reclamation equipment.
- Reducing the amount of reclamation equipment used during night-time at the new boat ramp to reduce noise.
- Implementing procedures to prevent the use of some alarms at night, and to reduce activities at night.

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Monitoring & Response

- Monitoring locations cover sensitive receivers, and were chosen for consistency with previous work.
- Throughout construction, day & night attended noise monitoring will take place.
- Dredging and reclamation equipment operating on the site will be tested at commencement, and then re-tested every month.
- The noise modelling results will be verified by additional noise monitoring.

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Night-time Response

- After normal business hours, callers to the 1800 number are offered the following choice:
- **Option 1** - leave a message for a return call the next business day
- **Option 2** – for an urgent matter relating to a currently occurring construction activity, a message can be sent to BH-JDN construction personnel at the time. BH-JDN will respond within approximately 30 minutes and no longer than 2 hours.
- These personnel would then identify and resolve noise issues, with investigative monitoring at property if required.

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Questions and Comments

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Odour Management

- Port Botany Expansion – 10th June 2008

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Background

- Geotechnical reports indicate that there are some odours present in sediments in Botany Bay.
- The prevailing winds are from the north-west, away from the immediate residences
- Majority of odours recorded were Hydrogen Sulphide (H_2S)
- There are existing, non-project related, odours in the area, such as from Mill Stream

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Odour Locations

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Odour Interaction

- 87 test cores were taken across the project footprint
- 51 of these cores contained some sediments that were odourous
- 15 of these odourous cores will be interacted with during the project
- We will interact with:
  - 7 slight odours
  - 4 moderate odours
  - 4 strong odours
  - 0 very strong odours

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Odour Interaction

- Of the 15 odourous cores, 13 are within the dredging footprint and will be deposited directly underwater as part of the reclamation (no stockpiling)
- 2 odourous core locations are within the Foreshore excavation works (1 strong and 1 moderate)

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Odour Management

- Odour risk areas defined as areas containing strong or very strong odours
- Planning and scheduling of excavations in odour risk areas to minimise the time these odourous sediments are exposed to air (ie. place underwater ASAP)

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Odour Management

- There are two main management options available:
  - Resubmerge sediments
  - Place clean, non-odourous fill over the stockpiled material
- Dredged material will immediately be placed underwater in the reclamation area

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Odour Monitoring

- When excavations are occurring in the vicinity of odour risk areas daily checking (field screening) will be undertaken
- Presence / absence and strength of odours will be noted daily during dredging

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Odour Masking Agents

- Odour masking agents are not recommended by DECC for use in this situation as:
  - They do not solve the problem
  - Large quantities are needed
  - It is difficult to apply them as there is no specific application point
  - The chemicals within these masking agents often pose a greater risk of environmental harm than the odour itself

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