SURFERS AGAINST SEWAGE

Surfers Against Sewage
Unit 2, Wheal Kitty Workshops
St Agnes, Cornwall, TR5 0RD

T: 01872 553 001 F: 01872 552 615
E: info@sas.org.uk W: www.sas.org.uk

Ellie Moir
Marine Licensing Case Officer
Inshore Marine Licensing Team
Lancaster House
Hampshire Court
Newcastle upon Tyne
NE47YH

MMO ref: MLP/2012/00308 Date: 08.02.13

Dear Ms Moir,

Consultation response on scoping opinion – MLP/2012/00308

Surfers Against Sewage (SAS) is an environmental charity protecting the UK's oceans, waves and beaches for all to enjoy safely and sustainably, via community action, campaigning, volunteering, conservation, education and scientific research.

This response will comment on Marine Minerals Limited scoping opinion to ensure the Environmental Impact Assessment process will be robust and the results that will support the Environmental Statement can be valid and appropriate.

Proposed Site:

The proposed dredging areas identified by Marine Minerals Limited along the north coast of Cornwall, from St Ives to Perranporth, include some of the most important areas for surfing and recreational water sports in the UK. This stretch of coastline regularly hosts international, national, regional and grassroots water sports competitions.

There are established and thriving surfing communities at all of the beaches identified within the scoping opinion. Hayle, Porthtowan, Perranporth as well as Portreath all have established surf life saving clubs regularly successfully competing and hosting at international events. There are numerous surf and recreational water sports schools that operate within the proposed dredging sites. The area is heavily used by surfers and other recreational water sports users throughout the year. Surfers and other recreational water users are not only be residents but also form a significant proportion of the visiting tourist market.

The high quality surf that is such an important feature for the north Cornish coast is heavily dependent on the build-up of sands, not only in the intertidal areas but also into the proposed dredging sites identified by Marine Minerals Limited. Changes in

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sediment dynamics could dramatically reduce the quality of the surf along the north Cornish coast. Members of the Marine Minerals Limited team have previously undertaken dredging along the north Cornish coast and anecdotal evidence from surfers and fishermen support the devastation to sand levels and extensive negative impacts on the environment and the surf regime.

The proposed site is directly impacted by untreated human sewage and stormwater from combined sewer overflows (CSOs). A CSO discharges untreated human sewage and stormwater during periods of rain. In 2012 Porthtowan had 16 significant spills of untreated sewage and storm water from the CSO and Godrevy had at least 14. Perranporth and Portreath will suffer similar discharge frequencies, however, SAS are not privy to spill counts for these beaches. Pathogens present in the effluent discharged via CSO can survive for prolonged periods in sediment and become reanimated when disturbed. They can pose a significant hazard to human health. Recreational water users are more at risk than the average bather to increased immersion and ingestion and prolonged exposure to the water environment, even in the coldest winter months, thanks to new wetsuit technology.

The proposed site is unspoilt, a factor that residents and tourists find important with their interaction with the environment. It is also an important factor for the flora and fauna supported within the proposed site. Dolphins, seals, basking sharks are regularly sighted within the proposed site as are fulmars, razorbills, gannets, kittiwakes, storm petrels, oyster catchers and many more. The potential impacts on these protected and valuable species needs fully investigating.

Opinion on Proposed Works:

SAS is supportive of sustainable development and recognises the economic pressures we are all facing. However, it's vital that established economies such as surfing, other recreational water sports and the tourist economies that are already delivering significant economic benefits to the area are not adversely impacted by Marine Minerals Limited's proposal.

A study commissioned by Cornwall Council and the South West Regional Development Agency in 2004 shows the economic benefit that surfing has on the South West's economy.

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Surfing brings in an estimated turnover of £64 million, providing 1,607 full and part time jobs. In addition surfers who spend time in the county spend 8.5% more per head than the average visitor to Cornwall

Surfing out performs sailing, which provides a £52 million turnover and 414 jobs, and golf, which has a £32 million turnover and 608 jobs.

The survey goes on to say that the financial contribution made by surfing to the South West's economy needs more recognition to ensure a higher profile and assistance with development.

Tourism dwarfs surfing for the region and the proposed site covers some of Cornwall's most famous tourist beaches. The beaches are Cornwall's biggest asset (supported by Visit Cornwall visitor surveys) and impacts on sediment, noise, discolouring of sea water and other impacts associated with the proposal could damage this vital and established economy. It's also worth noting that the beaches and the unspoilt environment also feature highly for valuable and important resources for residents.

General Comment:

SAS are concerned the baseline data is unsuitable as it's out of date. Much of the sediment baseline information comes from the 2006 Wave Hub studies. 2006 is significantly long ago, and one could expect natural deviation within the environment. Models will have improved dramatically since 2006, ensuring we are now better placed to identify a more robust baseline dataset. The 2006 sediment studies for Wave Hub have already failed in the real world. The Wave Hub cable has been exposed by over 1 metre in height and at times for approximately 20-30 metres in length. As this sediment study has already failed it would be inappropriate for Marine Minerals Limited to reference it. Also the geography of the Wave Hub project and the proposed Marine Mineral Limited sites are significantly different.

It's likely that hydraulic equipment will be used to remove millions of tonnes of sediment from the proposed sites. SAS are concerned about the potential contamination as waste water is returned to the surrounding area.

SAS are also concerned about Marine Minerals Limited removing sediment, processing the sediment and extracting their target sediment and returning what is a processed

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waste product to the sea bed. The areas they will return the waste sediment to are not licenced waste sites.

SAS are concerned at several potentially misleading and unfounded statements within the scoping opinion: For example, there has been "*no observed detrimental effect on the local environment*" from previous sediment extraction. And "*It is expected that well over 100 jobs could be created in Cornwall"*

There is also Coastal Protection Order for St Ives restricting sediment removal. Cornwall Council are the licencing authority.

Wave action interacts with the seafloor at significant depths beyond 20 metres (refraction in Wave Hub study and within the MML scoping opinion).

From comments in the scoping opinion and after meetings between SAS and Marine Minerals Limited's consult, Dr Rob Nunny (Ambios), SAS are concerned that mathematical modelling will not be undertaken to appropriately identify any potential impacts on coastal processes and therefore geomorphology. SAS are aware that mathematical modelling is used in to identify any impacts on the coastal processes for aggregate dredge proposals much further offshore then this proposal. It is also a concern to read the following is on the Ambios website "*I am also reluctant to seriously consider mathematically-based predictions of complex simulations of sediment transport. The factors controlling these processes are simply too complex to be reliably simulated by the present generation of models. I find over-reliance upon such output by inexperienced practitioners a depressing aspect of today's environmental regulatory system*." SAS are concerned that mathematical modelling could be financially unavailable to Abmios, or that Abmios do not have the technical ability to utilise mathematical models to identify any potential impacts.

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Comments by sub section:

2.3 The Study Area.
SAS would like to see neighbouring sediment cells outside of the proposed sites studied to ensure they aren't impacted.

2.4.3 Mining Platform or Vessel. Any exclusion zone around either a vessel or a platform would restrict the established and sustainable practising of surfing, kite surfing, wind surfing, day sailing and other recreational water sports. SAS would like to see the social and economic impacts investigated in the EIA.

2.4.4 Mining Techniques
There is the potential for sediment to escape from the processing machines and pollute the surrounding areas. SAS would like to see extensive core samples investigating levels of sewage pollution present in the sediment. The 8 grab samples are insufficient to form a robust baseline.

2.6.1 Hayle Harbour
Hayle and the surrounding beaches are home to established surfing, Surf Life Saving Clubs and other recreational water sports. Altering the sediment dynamics could impact on these sustainable activities. This should be investigated within the EIA.

3.1. Introduction & 4.2 Baseline Conditions
SAS are concerned that the sediment baseline studies are outdated and inappropriate. The Wave Hub data has failed to identify the appropriate depths to bury the Wave Hub cable, resulting in the valuable and potentially dangerous cable becoming exposed. Models have become more sophisticated since the 2006 models and the Marnie Minerals Limited proposal is geographically different to the Wave Hub site.

SAS would expect bespoke modelling to identify robust baseline data for sediment regimes at all sites.

4.2.3 Tidal Levels and Tidal Currents
SAS believe it's inappropriate to reference tidal current data from 1980 (Central Electric Generating Board, 1984 (South West Water) and Sea Sediments (1984). To ensure a robust baseline and thus a robust EIA SAS would call for bespoke and detailed surveys.

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4.2.5 Sediment Dynamics
SAS do not believe studies from 1983 are appropriate (Sea Sediment 1983) The environment is dynamic and therefore a detailed bespoke studies need to support this proposal.

SAS are also concerned that conceptual modelling will not identify the true impacts on coastal processes from removing such a significant amount of sediment in such proximity to the coast.

SAS has shown above that the Wave Hub data is unreliable and would also question the relevance of the HR Wallingford (2006) and Babtie (2002) results. The marine environment is dynamic and may have changed significantly since these studies were undertaken. Also improvements in modelling can now produce more robust datasets and are the best available technology for this new proposal.

SAS believe that mathematical modelling is appropriate for a project with this level of sensitivity and potential impact.

4.3.1 Key Receptors
Studies for the Wave Hub identified waves interacting (refracting) at depths within the Marine Minerals Limited proposed zones. As these waves travel through all proposed zones onto all the beaches on the north coast SAS would stress that all the beaches are therefore demonstrated to be connected to the proposed areas.

This is supported within the scoping opinion in 6.3.1 “Storm waves with heights of >3m >10s period will mobilise seabed sediment to depths of 50m which include the areas contained within the proposed resource license area (10-20m depth).”

This also raises concerns about the impacts on coastal processes and the quality of surfing waves.

5.2 Water Quality
The proposed site is directly impacted by untreated human sewage and stormwater from combined sewer overflows (CSOs). A CSO discharges untreated human sewage and stormwater during periods of rain. In 2012 Porthtowan had 16 significant spills of untreated sewage and storm water from the CSO and Godrevy had at least 14. Perranporth and Portreath will suffer similar discharge frequencies, however, SAS are not privy to spill counts for these beaches. Pathogens present in the effluent discharged via CSO can survive for prolonged periods in sediment and become

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reanimated when disturbed. They can pose a significant hazard to human health. Recreational water users are more at risk than the average bather to increased immersion and ingestion and prolonged exposure to the environment, even in the coldest winter months, thanks to new wetsuit technology.

The 2006 EU revised Bathing Water Directive has come into force as of 2012 and now water quality standards are much tougher. Any beaches failing to meet bathing water standards will have to display permanent signage warning the public against bathing.

5.5 Key Issues on Scope of Environmental Statement
"Since there is no impact on water course or water bodies at the site and surround". SAS believe there is the potential for impact, both biological from reanimating human sewage pollution and through contamination from hydraulic machinery. This needs addressing in the scoping report and further within the EIA and Environmental Statement.

6.3.1 Benthic Ecology Baseline Assessment
"Storm waves with heights of >3m >10s period will mobilise seabed sediment to depths of 50m which include the areas contained within the proposed resource license area (10-20m depth)."

This also raises concerns about the impacts on coastal processes and the valuable surf regime.

6.3.2 Intertidal
SAS are concerned about referencing outdated studies: Gill 1989, Davies 1998 & SWDA 2006. Updated studies need to be undertaken to ensure robust baseline data and reliable EIA.

8. Socioeconomics.
Surfing and other recreational water sports are underrepresented within the socioeconomic section.

A 2004 study commissioned by Cornwall Council and the South West Regional Development Agency shows the economic benefit that surfing brings to the South West's economy.

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Surfing out performs sailing, which provides a £52 million turnover and 414 jobs, and golf, which has a £32 million turnover and 608 jobs.

The survey goes on to say that the financial contribution made by surfing to the South West's economy needs greater recognition to ensure a higher profile and further assistance with development.

SAS would like to see this study updated and the value of waves, surfing and other recreational water sports considered at the appropriate level.

8.3 Infrastructure, Population and Economy.
The benefits to surfing on all communities within this section are ignored. There are the direct benefits to surf schools, surf shops, hotels, campsites, B&Bs that surfers stay at and the restaurants and shops that surfers use. Studies have shown that surfers spend more than 8% than the average visitor.

8.5 Formal Tourism and Recreation.
Whilst the scoping opinion recognises that tourism is "extremely vulnerable" to seasonality, it omits that surfing is popular all year round with the best surfing seasons outside of the traditional holiday seasons.

8.5.1 Water Sports
For such an important topic SAS were disappointed to see only 5 lines dedicated to identifying the benefits of water sports to the region. The scoping opinion omits the area regularly hosts world championships, international, national, regional and grass roots competitions. The area is also host to several international competitors that use the proposed sites to practise their chosen sports. These sports people represent the UK across various disciplines.

8.8.2 Proposed Studies – Tourism & Recreation.
The impacts on the wave regime and coastal processes supporting high quality surfing waves are currently not included, and should be a priority. SAS would like to see detail bespoke mathematical modelling to understand how the sediment processing and returned sediment might interact with the waves and how the sediment transportation might alter beach profiles and thus the quality of the surf.

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Summary:

Surfing is of strategic importance to the region socially, economically and culturally. However, it has been repeatedly under represented throughout Marine Minerals Limited's scoping opinion. SAS are especially concerned about the potential to impact the surfing regime at valuable and popular surfing beaches within the proposed area. SAS are also concerned about how underrepresented recreational water sports are within the socioeconomic study. There is also limited investigation into the environmental impacts. SAS are calling for more detailed work to urgently address these concerns.

Throughout the scoping report unfounded statements are seemingly made promoting how low impact the proposal could be. Because of the social, environmental and cultural value of the area SAS would like to see a precautionary approach to the entire project.

SAS would welcome the opportunity to consult throughout the licencing process in the hope that a robust and accurate Environmental Statement can be produced to ensure an informed decision can be made about the development with the best interests of the environment, economy and residents at heart.

Yours sincerely

Andy Cummins
SAS Campaign Director

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