

Victoria Rampart Ltd

Stone Pier Yard, Shore Road, Warsash,
Southampton, Hampshire SO31 9FR

Supporting Statement, WaFD and WFD
Assessments for Maintenance Dredging

Compiled by Dr P Tosswell, Lymington Technical Services Ltd

Contents

1. Background	2
2. Proposed Dredge	3
3. Dredge Sampling	3
4. Method Statement - Dredging	4
5. Waste Framework Directive	4
6. Protected Areas - Dredging	5
7. Protected Areas – Disposal	6
8. Background to Water Framework Directive Assessment	8
9. WFD Assessment	8
10. WFD Impact Assessment & Mitigation	14

1. Background

Stone Pier Yard is situated at the mouth of the River Hamble, Southampton, Hampshire.

The yard is operated by R K Marine Ltd and offers the usual range of boatyard facilities.

The yard is outlined in red on the following image:



The proposed dredge area is outlined in red on the following image:



2. Proposed Dredge –

Historically this site has undertaken minimal dredging. Following a change of ownership, the site requires dredging to enable continued operations of the existing boatyard facilities.

The material to be removed is all soft, recently deposited material.

An overall increase in depth of 1m is proposed, and the dredge volume is 2385m³, based on the latest data.

This volume is expected to be removed in a single campaign within the first 3 years of any licence. There will be a requirement for future maintenance dredging, based on local sedimentation rates this is estimated to be a similar value. Any such maintenance dredging will be after 5 years, and a new sample plan (mid-licence) will be required at that stage.

A 10-year licence for the whole works is being applied for

Disposal of dredged material is proposed at the Nab Tower site, with Hurst as a foul weather site, for no more than 10% of the licensed volume. These sites are routinely used for all dredging in Southampton Water.

Beneficial disposal of dredged material from the River Hamble has long been discussed (the BUDS project as an example) but with little practical progress made. The main reason seems to be a reluctance for trials to take place and for stakeholders to engage. LTS Ltd is currently involved in a beneficial disposal project on the River Medina.

There is no proposal for beneficial disposal for this application.

Drawings 11003/3 to 11003/7 shows the works area.

3. Dredge Sampling

Sample Plan SAM/2023/00046 applies.

Samples were taken at two locations at surface, and 1m. This resulted in 4 samples.

The following analysis was required:

- Trace metals (including arsenic)

- Organotins (tributyltin and dibutyltin)

- Polycyclic Aromatic Hydrocarbons (PAHs)

- Polychlorinated Biphenyls (PCBs)

- Particle Size Analysis (PSA)

The analysis results are attached to this application.

An initial examination of the results shows the following:

Trace metals – Copper ranges from 32 to 52 mg/kg, AL1 is 40 mg/kg, all others are below AL1

Organotins - All samples are below AL1

Polycyclic Aromatic Hydrocarbons – All samples are below L-ERL & H-ERL

Polychlorinated Biphenyls – All samples are below AL1

4. Method Statement - Dredging

It is anticipated that dredging will be conducted using a spud-legged backhoe dredger loading into self-propelled split-hopper barges for sea disposal. No over-spilling will be permitted.

The loading will be monitored to ensure no man-made items are taken to sea (this is a standard approach and negates the required for grids on the hoppers).

All vessels will display the correct lights and shapes.

The dredging is estimated to take 2 weeks, dependent upon weather.

The slope zone shown on the drawings indicates potential material collapse into the dredge area. The slopes are NOT dredged and are allowed to form naturally. They are included to provide a measurement of the material removed, i.e. For contractor payment. This is a common approach in this river.

5. Waste Framework Directive

The works are located within a transitional/coastal water and therefore are not excluded under Article 2(3) WaFD.

Navigational dredging is not clearly defined within the WaFD. The product of dredging is the increase in water depth so it might be argued that the dredge spoil is a by-product produced as part of the process. However, it fails to meet all four of the required conditions of Article 5(1) WaFD – primarily that ‘further use of the material is certain’

Taking the key steps for assessment in order:

1. Prevention

Article 3(12) WaFD defines ‘prevention’ as:

‘Measures taken before a substance, material or product has become waste that reduce:

- the quantity of waste, including through the re-use of products or the extension of the life span of products;
- the adverse impacts of the generated waste on the environment and human health; or
- the content of harmful substances in materials and products’.

Whilst prevention is not technically a waste management operation it does trigger whether the material becomes waste.

With regard to the dredging the requirement is to re-establish historical navigational depths. This operation will produce dredge spoil as a waste, no prevention of this is possible.

2. Preparing for re-use

Article 3(13) of WaFD, defines ‘re-use’ as: ‘Any operation by which products or components that are not waste are used again for the same purpose for which they were conceived ‘.

Article 3(16) of WaFD, defines ‘preparing for re-use’ as: ‘checking, cleaning or repairing recovery operations, by which products or components of products that have become waste are prepared so that they can be re-used without any other pre-processing. ‘

For this dredge the material is deposited at licenced disposal sites.

The potential for a Beneficial Disposal on the site has been identified and this will be used as a trial for potential longer-term use. There has been a long-term desire for beneficial disposal to be trialled on the Hamble and this is an ideal opportunity.

6. Protected Areas – Dredging

Marine Conservation Zone – The site is not within a MCZ.

The proposed works are an existing area of high vessel activity.

The site is within the following protected areas:

SPA – Solent and Dorset Coast (UK9020330). This SPA is intended to protect the foraging areas utilised by the Sandwich Tern, Common Tern & Little Tern. The boundaries in this area extend those of the Solent & Southampton Water SPA such that the application site is covered (as are all similar sites that regularly undertake dredging). Due to the existing high levels of activity in this location there is unlikely to be any significant impact.

SAC – Solent Maritime (UK0030059). The boundary of this area generally extends to MHW but does not exclude all existing (and existing at the time of definition) marine developments. There are several locations where this boundary overlays current dredging licences. The primary reasons for designation of this site are Estuaries, Spartina swards and Atlantic salt meadows.

Shellfish Waters 2014 (England) – Area 36 Approaches to Southampton Water. Whilst the proposal is within this area, the boundary of Area 35 includes all similar developed marine areas and is unlikely to have any negative impact.

Coastal Sensitive Area (Eutrophic) – Hamble Estuary (UKENCA123), nitrate sensitive.

Ramsar – Solent & Southampton Water UK11063 – overlays SSSI & SPA sites. This site is north of the works area, except for a small section that is subtidal. The area has existing very high human activity. Ramsar sites are wetlands of international importance. This site is designated for the habitats that support wintering wildfowl and breeding gull and tern populations (JNCC). The site covers intertidal habitat used for feeding. The overlap of this area with the works area is considered inappropriate due to the accuracy of border definitions.

SSSI – Lee-on-the Solent to Itchen Estuary – overlays Ramsar & SPA sites. This is a wetland habitat and of importance to feeding marine birds. The same logic applies as for Ramsar - The area has existing very high human activity. The overlap of this area with the works area is considered inappropriate and due to the accuracy of border definitions.

SPA – Solent & Southampton Water (UK9011061) – overlays Ramsar & SSSI sites. SPAs are sites of importance for rare and vulnerable birds as well as migratory birds. For this SPA the main threats are pollution, fishing, water quality & leisure (JNCC). The area has existing very high human activity. The overlap of this area with the works area is considered inappropriate and due to the accuracy of border definitions.

Nearby protected sites –

Local Nature Reserve – Hook with Warsash (1008963). This covers several separate areas in the River Hamble. The nearest are 100m upstream of the works, and 200m downstream of the works.

Best practice will be employed with the use of the most appropriate plant.

WFD Estuarine and Coastal Water Bodies Cycle 2 GB520704202800 Southampton Water

WFD Habitats – higher sensitivity – Saltmarsh, 100m distant, separated by a coastal embankment/path.

WFD Habitats – lower sensitivity – intertidal soft sediment indicated on MAGIC website, but some of this is subtidal. The indicated boundary of this does not cover similar sites, which are clearly subtidal soft sediment, these are also dredged regularly. The outer section of the works area is subtidal soft sediment.

7. Protected Areas – Disposal

The proposed disposal sites are the Nab Tower (W1060) and Hurst Fort (W1080). Both sites are well established and utilised disposal sites.

Relevant nearby MCZs are as follows:

Needles MCZ UKMCZ0040. The Nab Tower (main disposal site) site is over 40km to the east of the designated site. The Hurst Fort (bad weather only) disposal site is approximately 100m north.

Offshore Overfalls MCZ. The Nab Tower site is approximately 650m northwest. The Hurst Fort site is approximately 50km to the west

The dredge site is over 36km from the Nab Tower and over 25km from Hurst Fort. Due to these distances, there is no pathway for impact due to distance.

Needles MCZ assessment

The proposed disposal is taking place 100m north of this MCZ and as it is not taking place within this MCZ, pressures relating to direct effects on the seabed will not occur.

Only a small amount of material (max 10%) will be deposited at this site, and only when bad weather prevents the use of the Nab Tower site. The disposal will only be from a single barge with many hours (over 10) between each disposal. Any suspended sediment will quickly disperse. It is considered that there will not be any significant negative effects at this site.

Offshore Overfalls MCZ assessment

There is currently no Natural England conservation package for this site. Due to the distance of the dredging site from this MCZ there will be no impact from dredging. The proposed disposal is located approximately 650m northwest of the MCZ. Additionally, as works are not taking place directly within this MCZ there is no pathway of pressures relating to direct effects on the seabed to impact these features from the disposal activities. It is considered that there will not be any significant negative effects at this site.

Fisheries -

Over the last few years, we have received comments from Southern IFCA that local fishers have reported that the use of the Nab Tower disposal site has reduced the productivity of Brown Crab and Lobster Fisheries. No evidence has been provided to support this. Previous investigations have supported the viability of the Nab Tower site as suitable for sea disposal. Basic research by LTS Ltd has found many documents regarding the decline in Brown Crab all over the UK. A good example is the Devon & Severn IFCA report (Feb 2024). At a basic level, this clearly indicates that the use of the Nab Tower dredge spoil cannot be the underlying cause.

Furthermore, a recent request for discussions with fishers, facilitated by Southern IFCA produced no response from the fishers.

8. Background to Water Framework Directive Assessment

The purpose of a Water Framework Directive (WFD) assessment is to determine whether the proposed works will compromise the attainment of a WFD objective or result in the deterioration of the current ecological status of the relevant waterbodies.

The process consists of 3 stages –

Stage 1 – The Screening Stage

This stage is used to identify activities which need to be considered further (i.e. excludes those which do not require further assessment).

Stage 2 – The Scoping Stage

This stage identifies the potential risks to the following receptors:

- Hydromorphology
- Biology – fish habitats
- Biology – fish
- Water quality
- Protected areas

Stage 3 – Impact Assessment

This stage examines whether the activity will have a significant non-temporary effect on each receptor.

9. WFD Assessment

The assessment uses the online EA tables which are reproduced in the following pages.

The Catchment Data Explorer provides data updated 03:08:23.

WFD Tables for activities in estuarine and coastal waters

Activity	Description, notes or more information
Applicant name	<i>Victoria Rampart Ltd</i>
Application reference number (where applicable)	<i>n/a</i>
Name of activity	<i>Dredging</i>
Brief description of activity	<i>Necessary improvements to maintain site operation</i>
Location of activity (central point XY coordinates or national grid reference)	<i>448790,106255</i>

Footprint of activity (ha)	0.33 ha
Timings of activity (including start and finish dates)	<i>Dependent upon Marine Licence and plant availability. Normal time for dredging in this river is between October and April (inclusive).</i>
Extent of activity (for example size, scale frequency, expected volumes of output or discharge)	<i>The first dredge will be undertaken within the first 3 years of a licence. The estimated volume is 2385m³. Future maintenance dredging of a similar volume is estimated to be every 5 years.</i>
Use or release of chemicals (state which ones)	No

Water body¹	Description, notes or more information
WFD water body name	<i>Southampton Water</i>
Water body ID	<i>GB520704202800</i>
River basin district name	<i>South East</i>
Water body type (estuarine or coastal)	<i>Transitional Water (Estuarine from summary table)</i>
Water body total area (ha)	<i>3123.51</i>
Ecological status 2022	<i>Moderate</i>
Target Ecological status	<i>Moderate by 2015</i>
Chemical status 2022	<i>Fail 2019, does not require assessment 2022</i>
Target Chemical status	<i>Good by 2063</i>
Hydromorphology status of water body 2022	<i>Supports good</i>
Heavily modified water body and for what use	<i>Yes – coastal protection; flood protection; navigation, ports and harbours</i>
Higher sensitivity habitats present	<i>Saltmarsh 100m</i>
Lower sensitivity habitats present	<i>Intertidal & subtidal soft sediment. (MAGIC website).</i>
Phytoplankton status	<i>Good</i>
History of harmful algae	<i>Yes</i>
WFD protected areas within 2km	<i>Yes</i>

Specific risk to receptors –

Section 1: Hydromorphology

Consider if hydromorphology is at risk from your activity.

Use the water body summary table to find out the hydromorphology status of the water body, if it is classed as heavily modified and for what use.

Consider if your activity:	Yes	No	Hydromorphology risk issue(s)
Could impact on the hydromorphology (for example morphology or tidal patterns) of a water body at high status	Requires impact assessment	Impact assessment not required	No – <i>re-establishment of operational depths</i>
Could significantly impact the hydromorphology of any water body	Requires impact assessment	Impact assessment not required	No
Is in a water body that is heavily modified for the same use as your activity	Requires impact assessment	Impact assessment not required	Yes

Record the findings for hydromorphology and go to section 2: biology.

Section 2: Biology

Habitats

Consider if habitats are at risk from your activity.

Use the water body summary table and Magic maps, or other sources of information if available, to find the location and size of these habitats.

Higher sensitivity habitats ²	Lower sensitivity habitats ³
chalk reef	cobbles, gravel and shingle
clam, cockle and oyster beds	intertidal soft sediments like sand and mud
intertidal seagrass	rocky shore
maerl	subtidal boulder fields
Mussel beds, including blue and horse mussel	subtidal rocky reef
polychaete reef	subtidal soft sediments like sand and mud
saltmarsh	
subtidal kelp beds	
subtidal seagrass	

² Higher sensitivity habitats have a low resistance to, and recovery rate, from human pressures.

³ Lower sensitivity habitats have a medium to high resistance to, and recovery rate from, human pressures.

Consider if the footprint ⁴ of your activity is:	Yes	No	Biology habitats risk issue(s)
0.5km ² or larger	Yes to one or more – requires impact assessment	No to all – impact assessment not required	No
1% or more of the water body's area			No
Within 500m of any higher sensitivity habitat			Yes
1% or more of any lower sensitivity habitat			No

⁴ Note that a footprint may also be a temperature or sediment plume. For dredging activity, a footprint is 1.5 times the dredge area.

Fish

Consider if fish are at risk from your activity, but only if your activity is in an estuary or could affect fish in or entering an estuary.

Consider if your activity:	Yes	No	Biology fish risk issue(s)
Is in an estuary and could affect fish in the estuary, outside the estuary but could delay or prevent fish entering it or could affect fish migrating through the estuary	Continue with questions	Go to next section	No
Could impact on normal fish behaviour like movement, migration or spawning (for example creating a physical barrier, noise, chemical change or a change in depth or flow)	Requires impact assessment	Impact assessment not required	No
Could cause entrainment or impingement of fish	Requires impact assessment	Impact assessment not required	No

Record the findings for biology habitats and fish and go to section 3: water quality.

Section 3: Water quality

Consider if water quality is at risk from your activity.

Use the water body summary table to find information on phytoplankton status and harmful algae.

Consider if your activity:	Yes	No	Water quality risk issue(s)
Could affect water clarity, temperature, salinity, oxygen levels, nutrients or microbial patterns continuously for longer than a spring neap tidal cycle (about 14 days)	Requires impact assessment	Impact assessment not required	No. <i>Dredging is not continuous</i>
Is in a water body with a phytoplankton status of moderate, poor or bad	Requires impact assessment	Impact assessment not required	No
Is in a water body with a history of harmful algae	Requires impact assessment	Impact assessment not required	Yes

Consider if water quality is at risk from your activity through the use, release or disturbance of chemicals.

If your activity uses or releases chemicals (for example through sediment disturbance or building works) consider if:	Yes	No	Water quality risk issue(s)
The chemicals are on the Environmental Quality Standards Directive (EQSD) list	Requires impact assessment	Impact assessment not required	Yes
It disturbs sediment with contaminants above Cefas Action Level 1	Requires impact assessment	Impact assessment not required	Yes

If your activity has a mixing zone (like a discharge pipeline or outfall) consider if:	Yes	No	Water quality risk issue(s)
The chemicals released are on the Environmental Quality Standards Directive (EQSD) list	Requires impact assessment ⁵	Impact assessment not required	No

⁵ Carry out your impact assessment using the Environment Agency's surface water pollution risk assessment guidance, part of Environmental Permitting Regulations guidance.

Record the findings for water quality go on to section 4: WFD protected areas.

Section 4: WFD protected areas

Consider if WFD protected areas are at risk from your activity. These include:

- special areas of conservation (SAC)
- special protection areas (SPA)
- shellfish waters
- bathing waters
- nutrient sensitive areas

Use Magic maps to find information on the location of protected areas in your water body (and adjacent water bodies) within 2km of your activity.

Consider if your activity is:	Yes	No	Protected areas risk issue(s)
Within 2km of any WFD protected area ⁶	Requires impact assessment	Impact assessment not required	Yes

⁶ Note that a regulator can extend the 2km boundary if your activity has an especially high environmental risk.

Record the findings for WFD protected areas and go to section 5: invasive non-native species.

Section 5: Invasive non-native species (INNS)

Consider if there is a risk your activity could introduce or spread INNS.

Risks of introducing or spreading INNS include:

- materials or equipment that have come from, had use in or travelled through other water bodies
- activities that help spread existing INNS, either within the immediate water body or other water bodies

Consider if your activity could:	Yes	No	INNS risk issue(s)
Introduce or spread INNS	Requires impact assessment	Impact assessment not required	<i>No, plant local to waterbody and does not have ballast tanks. Vessels are regularly dry docked and cleaned.</i>

Summary

Receptor	Potential risk to receptor?	Note the risk issue(s) for impact assessment
Hydromorphology	Yes	<i>Within an HMWB for same use</i>

Biology: habitats	Yes	<i>Intertidal & subtidal soft sediments</i>
Biology: fish	No	
Water quality	Yes	<i>Some results above AL1</i>
Protected areas	Yes	<i>SAC, SPA, Shellfish, Coastal Sensitive (Eutrophic)</i>
Invasive non-native species	No	

10. WFD Impact Assessment & Mitigation

The assessment has identified potential risks to the following:

Hydromorphology –

The works relate to re-establishment and improvements to an existing facility. There is therefore no additional risk.

Biology - habitats

Intertidal soft sediments. As this section of the River Hamble has relatively low sedimentation rates, less maintenance dredging is required. At this site, this has resulted in a lack of maintenance (by the previous owners), and recent sediment deposit. The proposed removal of 1m over the dredge area, has a small impact on the intertidal areas (as they are so shallow). As a result of the proposed dredge an area of approximately 190m² will change from intertidal to subtidal.

Subtidal soft sediments. This covers the outer section of the dredge and there is no change to the habitat.

Whilst there is a reduction of intertidal area, this is an equivalent increase of subtidal area, with the same sediments. It is important to understand that this is a well-established boat yard (pre WW2) and maintenance dredging is necessary for such sites to survive.

Furthermore, the proposed dredging is designed to have the minimum impact on the existing habitats, as a more commercial solution would involve a much greater depth of dredge. The depth proposed is considered a minimum for practical operations, which will be tidally restricted.

As the existing area is adjacent to an existing boatyard, this reduction will have minimal impact on feeding wildfowl.

The works area is within 500m of saltmarsh, but that is separated by a coastal embankment/path. No possible impact.

Water quality –

The sediment sample analysis shows that three samples have a Cu value only just above AL1 and orders of magnitude less than AL2. All others are below AL1.

The PAH results are all below L-ERL & H-ERL

For the PCBs, All samples are below AL1

The prevention of overspilling during loading has been shown to reduce the suspended sediment loads and this will apply to these works.

The works are therefore highly unlikely to have any negative impact on the water quality.

Protected areas –

SPA – Solent and Dorset Coast (UK9020330). This SPA is intended to protect the foraging areas utilised by the Sandwich Tern, Common Tern & Little Tern. The boundaries in this area extend those of the Solent & Southampton Water SPA such that the application site is covered (as are all similar sites that regularly undertake dredging). Due to the existing high levels of activity in this location there is unlikely to be any significant impact.

SPA – Solent & Southampton Water (UK9011061) – SPAs are sites of importance for rare and vulnerable birds as well as migratory birds. For this SPA the main threats are pollution, fishing, water quality & leisure (JNCC). The area has existing very high human activity. The overlap of this area with the works area is considered inappropriate and due to the accuracy of border definitions. No possible impact.

SAC – Solent Maritime (UK0030059). The boundary of this area generally extends to MHW but does not exclude all existing (and existing at the time of definition) marine developments. There are several locations where this boundary overlays current dredging licences. The primary reasons for designation of this site are Estuaries, Spartina swards and Atlantic salt meadows.

Shellfish Waters 2014 (England) – Area 36 Approaches to Southampton Water. Whilst the proposal is within this area, the boundary of Area 35 includes all similar developed marine areas and is unlikely to have any negative impact.

Coastal Sensitive Area (Eutrophic) – Hamble Estuary (UKENCA123), nitrate sensitive. The works have no link to eutrophication.

Best practice is being employed with the use of the most appropriate plant.