John Willment Marine Ltd

Universal Marina - Hoist Dock Pontoon

Supporting Statement for Harbour Works Consent. Includes Method Statement, WaFD & WFD Assessments

Compiled by Dr P Tosswell, Lymington Technical Services Ltd

Contents

1.	Background	2
2.	Proposal	2
3.	MMO Licence	2
4.	Navigation	2
5.	Method Statement	2
6.	Waste Framework Directive Assessment	3
7.	Protected Areas	3
8.	Background to Water Framework Directive Assessment	4
9.	WFD Assessment	4
	9.1 Screening & Scoping Stage	10
10.	WFD Impact Assessment & Mitigation	15
11.	Summary	16

1. Background

Universal Marina offers dry stack berthing in addition to the more traditional marina berthing. Due to the rise in popularity of this method of boat storage there is a requirement for an additional berthing pontoon for the launched vessels to improve the customer accessibility.

2. Proposal

A 12m pontoon will be installed between the upstream end of the hoist dock and the existing pontoons. Details are shown on drawing 10584/44/A.

The pontoon will be bolted to the existing pontoons and connected to the hoist dock using a vertical guide.

There is no increase in berthing, actually a small reduction.

3. MMO Licence

This activity is an exempt operation under exemption 25A Pontoons. The pontoon is less than $30m^2$ in plan.

In addition, the works must not have a negative impact on the environment. This is dealt with in this document by a WFD assessment.

4. Navigation

There is no impact on current navigation from this proposal.

5. Method Statement

The works will be undertaken by JWM Ltd staff.

The pontoon will arrive by road to the marina. The floats will then be attached, and the pontoon craned into the water. The vertical guide will be galvanised steel and bolted to the existing hoist structure.

Once located in position the pontoon will be bolted to the existing pontoons.

The works are expected to be completed within one day.

6. Waste Framework Directive

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

No waste will be produced as part of these works.

7. Protected Areas

The site is within an existing area of high vessel activity. It is not within or near a MCZ (whether designated, proposed or recommended).

SAC – Solent Maritime (UK0030059). The primary reasons for designation of this site are Estuaries, Spartina swards and Atlantic salt meadows. There are no Spartina swards or Atlantic salt meadows within the works area so there will be no negative impact on these habitats. The boundary largely excludes the marinas in the river. The will have no measurable impact on the protected site.

pSPA – Solent and Dorset Coast. This proposed SPA is intended to protect the foraging areas utilised by the Sandwich Tern, Common Tern & Little Tern. The proposed boundaries in this area extend those of the Solent & Southampton Water SPA such that the application site is covered. This pSPA does not currently appear on the MAGIC website but is included here for completeness.

In construction terms the proposed works can only be conducted at high waters and are within existing areas of high activity. In operational terms there is no difference.

Nearby protected areas -

Local Nature Reserve (LNR) – Hackett's Marsh (1009285). This area is located on the opposite side of the river to the works site. The existing main channel and associated tidal flows mean that the works area is physically separated from the LNR. The reserve is therefore unaffected by the proposed works.

Ramsar – Solent and Southampton Water (UK11063). This has a similar coverage to the LNR and there will be no impact from the proposed works on the protected area.

SSSI – Lincegrove & Hackett's Marshes (1080733). This also overlays the LNR and similarly the proposed works will have no impact.

SPA – Solent & Southampton Water (UK9011061). This overlays the above sites and is similarly unaffected by the proposal.

Shellfish Waters – Approaches to Southampton Water (36). No possible impact.

Coastal Sensitive Areas – Eutrophic – Hamble Estuary (UKENCA123), nitrate sensitivity. The nature of the works is such that they can have no impact on the level of nitrates.

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

WFD Estuarine and Coastal Water Bodies Cycle 2 GB5207040202800 Southampton Water

WFD Habitats – higher sensitivity – saltmarsh (unaffected by the proposed works)

WFD Habitats – lower sensitivity – subtidal soft sediment (unaffected by the proposed works)

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 EA have released (Dec 2016) a new version of 'Clearing the Waters for All' and this version is followed here.

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). Activities conducted between 2009-2014 are excluded as they would have been covered by the River Basin Management Plan (RBMP) evidence collection process. This typically applies to maintenance activities including dredging.

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 new (Dec 2016) online EA tables which are reproduced in the following pages.

In order to improve clarity, the water body data from Catchment Data Explorer is reproduced below.

The Catchment Data Explorer provides data updated 16:01:19.

Download Water Body as CSV / GeoJSON **SOUTHAMPTON WATER** Overall classification for 2016 Overview Moderate ld GB520704202800 Туре Transitional Water Hydromorphological designation ① heavily modified NGR 📵 SU4435507905 Surface area 3091.32 ha 30.913 km2 ırveillance Water Body 🚺

Classifications ⁶

Cycle 2 classifications 6

Classification Item		2013	2014	2015	2016
▼ Ove	erall Water Body	Moderate	Moderate	Moderate	Moderate
▼ E	cological	Moderate	Moderate	Moderate	Moderate
•	Supporting elements (Surface Water)	Moderate	Moderate	Moderate	Moderate
	Mitigation Measures Assessment	Moderate or less	Moderate or less	Moderate or less	Moderate or less
•	Biological quality elements	Poor	Moderate	Good	Good
	Angiosperms	Good	Good	Good	Good
	Fish	Poor	Moderate	Good	Good
	Invertebrates	Good	Good	Good	Good
	Macroalgae	Good	Good	Good	Good
	Phytoplankton	High	High	High	High
•	Hydromorphological Supporting Elements	Supports Good	Supports Good	Supports Good	Supports Good
	Hydrological Regime	Supports Good	Supports Good	Supports Good	Supports Good
•	Physico-chemical quality elements	Moderate	Moderate	Moderate	Moderate
	Dissolved Inorganic Nitrogen	<u>Moderate</u>	Moderate	Moderate	Moderate
	Dissolved oxygen	High	High	High	High

				:
▼ Specific pollutants	High	High	High	High
Triclosan	High	High	-	High
2,4-dichlorophenol	High	High	High	High
2,4- dichlorophenoxyac etic acid	High	High	High	High
Arsenic	High	High	High	High
Copper	High	High	High	High
Diazinon	-	High	High	High
Dimethoate	High	High	High	High
Iron	High	High	High	High
Linuron	High	High	High	High
Mecoprop	High	High	High	High
Permethrin	High	High	High	-
Phenol	High	High	High	High
Toluene	High	High	High	High
Un-ionised ammonia	-	High	High	High
Zinc	High	High	High	High
▼ Chemical	Fail	Fail	Fail	Fail
▼ Priority substances	Good	Good	Good	Good
1,2-dichloroethane	Good	Good	Good	Good
Atrazine	Good	Good	Good	Good
Benzene	Good	Good	Good	Good
Chlorpyrifos	-	-	-	Good
Chlorfenvinphos	Good	Good	Good	Good
Diuron	-	-	-	Good
Fluoranthene	Good	Good	-	Good
Isoproturon	-	-	-	Good
Lead and Its Compounds	Good	Good	Good	Good
Napthalene	Good	Good	Good	Good
Nickel and Its Compounds	Good	Good	Good	Good
Pentachlorophenol	Good	Good	Good	Good
Simazine	Good	Good	Good	Good
Trichloromethane	Good	Good	Good	Good
▼ Other Pollutants	Good	Good	Good	Good
Aldrin, Dieldrin, Endrin & Isodrin	Good	Good	Good	-
Carbon Tetrachloride	Good	Good	Good	Good
DDT Total	-	-	-	Good
para - para DDT	Good	Good	Good	Good
Tetrachloroethylen e	Good	Good	Good	Good
Trichloroethylene	Good	Good	-	-

Priority hazardo	ous	Fail	Fail	Fail	Fail
Anthracene		-	-	-	Good
Brominated diphenylethe (BDPE) Calc	er	<u>Fail</u>	Fail	-	-
Benzo (b) an fluoranthene		-	-	-	Good
Benzo (ghi) perelyene ar indeno (123- pyrene		-	-	-	Good
Benzo(a)pyre	ene	Fail	Fail	-	Good
Cadmium an Compounds	(Good	Good	Good	Good
Di(2- ethylhexyl)pi e (Priority hazardous)	nthalat G	Good	Good	-	Good
Endosulfan	G	Good	Good	Good	-
Hexachlorob e	enzen G	Good	Good	Good	Good
Hexachlorob ne	utadie	Good	Good	Good	Good
Hexachloroc xane	yclohe	Good	Good	Good	-
Mercury and Compounds		Good	Good	Good	Good
Nonylpheno	I	Good	Good	Good	Good
Tributyltin Compounds		<u>Fail</u>	Fail	Fail	Fail
Trifluralin (Pr hazardous)	iority	Good	Good	Good	Good

Upstream water bodies

Name 🚣
Test (Lower)
Itchen
Monks Brook
Main River Hamble
Bartley Water
Langdown Stream
Tanner's Brook

Downstream water bodies



Investigations into classification status ⁶

Classification Element 🔺	Cycle 🛦	Year 🔺	Status 🔺	Outcome 🔺
Fish	2	2013	Poor	
Tributyltin Compounds	2	2013	Fail	

Reasons for not achieving good status and reasons for deterioration ⁶

Download as CSV

Reason Type 🚣	SWMI 🚣	Activity -	Category _	More	Classification Element 🔺
RNAG	Point source	Sewage discharge (continuous)	Water Industry	Details	Dissolved Inorganic Nitrogen
RNAG	Diffuse source	Poor nutrient management	Agriculture and rural land management	Details	Dissolved Inorganic Nitrogen
RNAG	Physical modification	Other (not in list, must add details in comments)			Mitigation Measures Assessment
RNAG	Physical modification	Other (not in list, must add details in comments)	Local and Central Government	Details	Mitigation Measures Assessment
RNAG	Unknown (pending investigation)	Unknown (pending investigation)	Sector under investigation	Details	Brominated diphenylether (BDPE) Calc
RNAG	Point source	Sewage discharge (continuous)	Water Industry	Details	Tributyltin Compounds
RNAG	Point source	Trade/Industry discharge	Industry	Details	Tributyltin Compounds
RNAG	Diffuse source	Other (not in list, must add details in comments)	Navigation	Details	Tributyltin Compounds
RNAG	Diffuse source	Contaminated water body bed sediments	Industry	Details	Tributyltin Compounds

Objectives ⁶

Classification Item 🛕	Status 🗻	Year 🔺	Reasons 🗻
Overall Water Body	Moderate	2015	Unfavourable balance of costs and benefits Disproportionate burdens Cause of adverse impact unknown
Ecological	Moderate	2015	Unfavourable balance of costs and benefits Disproportionate burdens Cause of adverse impact unknown
Supporting elements (Surface Water)	Good	2027	Disproportionate burdens Cause of adverse impact unknown
Mitigation Measures Assessment	Good	2027	Disproportionate burdens Cause of adverse impact unknown
Biological quality elements	Good	2015	
Angiosperms	Good	2015	
Fish	Good	2015	
Invertebrates	Good	2015	
Macroalgae	Good	2015	
Phytoplankton	Good	2015	
Hydromorphological Supporting Elements	Supports Good	2015	
Hydrological Regime	Supports Good	2015	
Physico-chemical quality elements	Moderate	2015	Unfavourable balance of costs and benefits
Dissolved Inorganic Nitrogen	Moderate	2015	Unfavourable balance of costs and benefits
Dissolved oxygen	Good	2015	
Specific pollutants	High	2015	
2,4-dichlorophenol	High	2015	
2,4-dichlorophenoxyacetic acid	High	2015	
Arsenic	High	2015	
Copper	High	2015	
Diazinon	High	2015	
Dimethoate	High	2015	
Iron	High	2015	

Linuron	High	2015	
Mecoprop	High	2015	
Permethrin	High	2015	
Phenol	High	2015	
Toluene	High	2015	
Un-ionised ammonia	High	2015	
Zinc	High	2015	
Chemical	Good	2027	Disproportionate burdens
Priority substances	Good	2015	
1,2-dichloroethane	Good	2015	
Atrazine	Good	2015	
Benzene	Good	2015	
Chlorfenvinphos	Good	2015	
Lead and Its Compounds	Good	2015	
Napthalene	Good	2015	
Nickel and Its Compounds	Good	2015	
Pentachlorophenol	Good	2015	
Simazine	Good	2015	
Trichloromethane	Good	2015	
Other Pollutants	Good	2015	

Aldrin, Dieldrin, Endrin & Isodrin	Good	2015	
Carbon Tetrachloride	Good	2015	
para - para DDT	Good	2015	
Tetrachloroethylene	Good	2015	
Priority hazardous substances	Good	2027	Disproportionate burdens
Cadmium and Its Compounds	Good	2015	
Endosulfan	Good	2015	
Hexachlorobenzene	Good	2015	
Hexachlorobutadiene	Good	2015	
Hexachlorocyclohexane	Good	2015	
Mercury and Its Compounds	Good	2015	
Nonylphenol	Good	2015	
Tributyltin Compounds	Good	2027	Disproportionate burdens
Trifluralin (Priority hazardous)	Good	2015	

Protected areas ⁶

PA Name 🔺	ID _	Directive 🚣	Type 🗻	More information 🗻
185	NVZ12SW011850	Nitrates Directive		
Solent & Southampton Water	UK9011061	Conservation of Wild Birds Directive	SPA	Natural England
Solent Maritime	UK0030059	Habitats and Species Directive	SAC	Natural England
SOUTHAMPTON WATER	UKSW35	Shellfish Water Directive		
River Itchen	UK0012599	Habitats and Species Directive	SAC	Natural England
River Hamble	UKENRI122	Urban Waste Water Treatment Directive		
Approaches to Southampton Water	UKSW36	Shellfish Water Directive		
Hamble Estuary	UKENCA123	Urban Waste Water Treatment Directive		
River Itchen (Hampshire)	UKENRI110	Urban Waste Water Treatment Directive		

9.1 Screening & Scoping Stage - WFD Tables for activities in estuarine and coastal waters

Works take place in or affect more than one water body, complete a template for each water body – *single water body*

Works include several different activities or stages as part of a larger project, complete a template for each activity as part of your overall WFD assessment – *single activity*

Activity	Description, notes or more information
Applicant name	John Willment Marine Ltd
Application reference number (where applicable)	n/a
Name of activity	Universal Marina hoist dock pontoon
Brief description of activity	Installation of pontoon
Location of activity (central point XY coordinates or national grid reference)	449075,108675
Footprint of activity (ha)	0.002 ha
Timings of activity (including start and finish dates)	Dependent upon components availability.
Extent of activity (for example size, scale frequency, expected volumes of output or discharge)	Single activity – 1 day installation
Use or release of chemicals (state which ones)	None

Water body ¹	Description, notes or more information
WFD water body name	Southampton Water
Water body ID	GB520704202800
River basin district name	South East
Water body type (estuarine or coastal)	Transitional Water (Estuarine in summary table)
Water body total area (ha)	3091.3
Overall water body status (2016)	Moderate
Ecological status	Moderate
Chemical status	Good by 2027
Target water body status and deadline	Moderate by 2015
Hydromorphology status of water body	Supports Good (summary table)

Heavily modified water body and for what use	Yes – navigation, ports & harbours, flood defence
Higher sensitivity habitats present	Yes – saltmarsh – unaffected by proposal
Lower sensitivity habitats present	Yes – subtidal soft sediment – unaffected by proposal
Phytoplankton status	High from summary table
History of harmful algae	No from summary table
WFD protected areas within 2km	Yes

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
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			No
1% or more of the water body's area	Yes to one or more – requires impact	No to all – impact assessment not required	No
Within 500m of any higher sensitivity habitat			Yes
1% or more of any lower sensitivity habitat	assessment		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	Requires impact assessment	Impact assessment not required	No

(for example creating a physical barrier, noise, chemical change or a change in depth or flow)			
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.
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	No

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	Not applicable
It disturbs sediment with contaminants above Cefas Action Level 1	Requires impact assessment	Impact assessment not required	Not applicable

If your activity has a mixing zone	Yes	No	Water
(like a discharge pipeline or outfall)			quality
consider if:			risk
			issue(s)

The chemicals released are on the	Requires impact	Impact assessment	No
Environmental Quality Standards	assessment ⁵	not required	
Directive (EQSD) list			

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

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)
- bathing waters
- special protection areas (SPA)
- nutrient sensitive areas

• shellfish waters

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	No

Summary

Receptor	Potential risk to receptor?	Note the risk issue(s) for impact assessment
Hydromorphology	Yes	Within an HMWB for same use
Biology: habitats	No	
Biology: fish	No	
Water quality	No	
Protected areas	Yes	Saltmarsh upstream & downstream of works
Invasive non-native species	No	

10. WFD Impact Assessment & Mitigation

The assessment has identified potential risks to the following:

Hydromorphology -

The works relate to a small-scale pontoon installation. There is no additional risk.

Protected areas -

SAC – Solent Maritime (UK0030059). The primary reasons for designation of this site are Estuaries, Spartina swards and Atlantic salt meadows. There are no Spartina swards or Atlantic salt meadows within the works area so there will be no negative impact on these habitats.

Local Nature Reserve (LNR) – Hackett's Marsh (1009285). This area is located on the opposite side of the river to the works site. The existing main channel and associated tidal flows mean that the works area is physically separated from the LNR. The reserve is therefore unaffected by the proposed works.

Ramsar – Solent and Southampton Water (UK11063). The works are sufficiently removed from this area and there will be no impact from the proposed works on the protected area.

SSSI – Lincegrove & Hackett's Marshes (1080733), Lee-on-the-Solent to Itchen Estuary (1000802). This overlays the Ramsar site and similarly the proposed works will have no impact.

SPA – Solent & Southampton Water (UK9011061), This overlays the above sites and is similarly unaffected by the proposal.

Coastal Sensitive Areas – Eutrophic – Hamble Estuary (UKENCA123), nitrate sensitivity. The nature of the works is such that they can have no impact on the level of nitrates.

The works will therefore have no negative impact on the protected sites.

11. Summary

By following EA guidance, it is concluded that the proposal will not have a negative impact on the water body nor any protected area.