## 1.3 Scoping Verification

AECOM Infrastructure & Environment UK Limited
1 Tanfield
Edinburgh
EH3 5DA
United Kingdom

T: +44 131 301 8600
aecom.com

**Project name:**
Uig Harbour Redevelopment EIA

**Project ref:**
60536743

**To:**
Redacted
Marine Scotland - Licencing Operations Team

**From:**
Redacted

**Date:**
15 March 2018

# Memo

**Subject: Design adjustments and Environmental Impact Assessment (EIA) Scoping**

As discussed on our call last Thursday, please find set out below a summary of the key design developments which have been proposed for the Uig Harbour Redevelopment project since issue of the EIA Scoping Opinion dated 30 November 2017. Where ever possible these are described within the context of the project parameters previously provided within the EIA Scoping Report dated September 2017. Design developments are summarised in the table below.

| Works | Description (September 2017) | Design Amendments (March 2018) | Current EIA Scope as set out within Scoping Opinion Nov 2017 | Required Adjustments to EIA Scope? |
|---|---|---|---|---|
| Dredging | Dredge pocket along the berth area, to minus 5.9 mCD. Totalling approximately 20 000m$^3$ of dredged material. | Dredge pocket along the berth area to minus 5.9mCD. Totalling approximately 26 800 m$^3$ of dredged material | **Marine physical environments:** changes to the hydrodynamic regime; the wave climate; sediment transport; and sediment disturbance; changes in the substrate type through the redisposition of both suspended sediment and sea disposal of dredge material. EIA Report should include modelling of hydrodynamics, waves and sediments<br><br>**Marine Water and Sediment Quality:** changes to water and sediment quality; dissolved oxygen; contaminant levels; redistribution of sediment-bound contaminants. EIA Report should include review of existing conditions (water quality and chemical analysis) and should demonstrate that heavy metal spoil will not cause harm to the environment.<br><br>**Benthic Ecology**: direct loss of habitat disturbance to benthic habitats from dredge spoil; suspended sediment affecting water quality. Consideration of PMFs (specifically seapens and burrowing megafauna in circalittoral fine muds).<br><br>**Marine Mammals:** Potential effects on Harbour Porpoise<br><br>**Commercial Fisheries:** vessel movements between dredge and dredge disposal site. | Existing agreed environmental scope already provides for consideration of potential activity/receptor interactions associated with these adjustments<br><br>Dredge sediment no longer to be used for land reclamation. Consideration of marine water and sediment quality impacts as a result of its use in land reclaim is no longer required. However appropriate consideration will be given to dredge sediment reuse for beach nourishment. |
| | Dredging along the approachway for the fishermen's berth. Totalling approximately 2 000 m$^3$ | Dredging along the widened approachway for fishermen's berth. Totalling approximately 1 500m$^3$ | | |
| Dredge disposal | Re-use the dredge material in the land reclamation where possible. | Dredge material no longer to be used for land reclamation.<br><br>Disposal of 1500m$^2$ dredging along the widened approachway for fishermen's berth used for beach nourishment. | | |
| | Naturally high concentrations of heavy metals in the sediment in Uig Bay. If not used on land reclamation dredge material to be disposed of in a new sea disposal site within the local environment of similar characteristics. i.e. within 1km of Uig Bay. A site Characterisation Process will be carried out | Naturally high concentrations of heavy metals in the sediment in Uig Bay. If not used on land reclamation dredge material to be disposed of in a new sea disposal site within the local environment of similar characteristics. i.e. within 1km of Uig Bay. A site Characterisation Process will be carried out.<br><br>No change | | |
| Widening of the existing berth | Berthing structure to be widened by 10m. (final width 19.5m) This will include:<br>• Demolition and relocation of | Berthing structure to be widened by 14.5m. (Final width 24m). This will include:<br>• Demolition and relocation of existing waiting shelter - No change; | **Marine physical environments:** changes to the hydrodynamic regime; the wave climate; sediment transport; and sediment disturbance; changes in the substrate type through the redisposition of both suspended sediment and sea disposal of dredge material. EIA Report should include modelling of | Existing agreed scope already provides for consideration of potential activity/receptor interactions associated with these |

| Works | Description (September 2017) | Design Amendments (March 2018) | Current EIA Scope as set out within Scoping Opinion Nov 2017 | Required Adjustments to EIA Scope? |
|---|---|---|---|---|
| | existing waiting shelter;<br>• Removal and replacement of fenders, fender piles and fender panels;<br>• Demolition of sections of existing wave wall and construction of new wave protection wall;<br>• Driving of new tubular piles;<br>• Combination of pre-cast and in-situ concrete to construction deck and berthing structure extension;<br>• Reinforced with steel tubular bearing piles with reinforced concrete plugs. | • Removal and replacement of fenders, fender piles and fender panels - No change;<br>• Existing wave wall will still be removed, new wave protection wall will be constructed on edge of new coping on circular cells;<br>• Installation of new circular cells to support widened berthing structure and to provide wave protection to the vessel berth.<br>• Driving of new straight web and some H piles;<br>• Combination of pre-cast and in-situ concrete to construction deck and berthing extension – No change | hydrodynamics, waves and sediments<br><br>**Marine Water and Sediment Quality:** changes to water and sediment quality; dissolved oxygen; contaminant levels; redistribution of sediment-bound contaminants. EIA Report should include review of existing conditions (water quality and chemical analysis) and should demonstrate that heavy metal spoil will not cause harm to the environment<br><br>**Flood Risk and Climate Change:** EIA Report to demonstrate that the issue of coastal flooding has been addressed.<br><br>**Marine Mammals:** Potential effects on Harbour Porpoise. Information to inform Habitat Regulations Appraisal (HRA) and a possible EPS disturbance licence should be included. Standard piling mitigation as recommended by JNCC should be applied as appropriate.<br><br>**Fish and Shellfish**: Underwater sound from impact piling works. Underwater noise propagation modelling will be undertaken. Sediment dispersion modelling to determine effects of water quality changes will be undertaken.<br><br>**Commercial and Recreational Navigation**: UK Hydrographic Office and MCA Marine Office to be notified. Aids to Navigation (AtoN) should be reviewed with Northern Lighthouse Board | adjustments |
| Increased marshalling area through land reclamation | Undertake approximately 11 000m$^2$ of land reclamation using approximately 50 000 m3 of infilling material with rock armour revetment and sheet piles. | Undertake approximately 11 000m$^2$ of land reclamation using approximately 50 000 m3 of infilling material with rock armour revetment and sheet piles<br><br>No change | **Marine Water and Sediment Quality**: EIA Report should demonstrate that heavy metal spoil from dredge sediment will not harm the environment. | Dredge sediment no longer to be used for land reclamation. Consideration of marine water and sediment quality impacts as a result of its use in land reclaim is no longer required. |

| Works | Description (September 2017) | Design Amendments (March 2018) | Current EIA Scope as set out within Scoping Opinion Nov 2017 | Required Adjustments to EIA Scope? |
|---|---|---|---|---|
| Works on the increased marshalling area | Construction of new ticket office; vehicle lanes; HGV lanes; parking spaces; collection and drop off spaces; replacing the dry berthing area and relocating the existing fishermen's compound. | Construction of new ticket office and fishermen's compound and storage building<br><br>No change | No change | No change |
| Widening of the Approachway | Widening of the approachway by an additional 6m (total width 15.2m) will require the following:<br>• Driving new tubular steel piles with reinforced concrete pile caps;<br>• Using a combination of pre-cast and in-situ concrete to construct the deck;<br>• Repair existing concrete deck on approachway over open piled and masonry wall sections;<br>• Removing and reinstating the monoblock area and backfill; and<br>• Replace timber grillage, fenders and steel boar defectors, boatsteps. | Widening of the approachway (fisherman's compound to chicane; and chicane to end of old pier head) (total width 15.2m)<br><br>No change | No change | No change |
| New Linkspan with dolphins | Replace existing linkspan and M&E equipment, and replace or upgrade the existing lifting dolphins and bankseat. Invoices driving new piles and removing old piles | A new linkspan, bankseat and lifting dolphins will be installed. 36.5m in length (which is same length as current). Repositioned and rotated slightly to accommodate geometry of the new vessel.<br><br>No change | No change | No change |
| Demolition of the existing ticket office | The existing ticket office will be demolished at the end of the construction phase. | Demolition of existing ticket office and disposal of material in a method compliant with applicable regulations | No change | No change |

| Works | Description (September 2017) | Design Amendments (March 2018) | Current EIA Scope as set out within Scoping Opinion Nov 2017 | Required Adjustments to EIA Scope? |
|---|---|---|---|---|
| | | No change | | |
| Construction Compound | The construction compound will be located immediately to the west of the existing ticket office | A construction compound of up to 200m by 100m will be located immediately to the west of the existing ticket office.<br><br>No change | No change | No change |
| Upgrades to public utilities | The potable water system, electrical supply, telecoms / data lines and street lighting will be upgraded. | The potable water system, electrical supply, telecoms / data lines and street lighting will be upgraded.<br><br>No change | No change | No change |
| **Potential Additional Options** | | | | |
| Extension of the pier to include bringing the line of dolphins onto the line of the pier. | Creating a solid pier between the berthing structure and the extremity of the outer berthing dolphin with an upgraded fender system. Additional length of the pier added | No Longer Proposed | No longer required | No longer required |
| Wave Screen and outer dolphin positioning | Moving the existing outer dolphin 10 m seaward to accommodate increased mooring confidence of the new vessel and installing a greenheart timber wave screen, using steel tubular bearing piles and greenheart timber piles respectively. | No Longer Proposed | No longer required | No longer required |
| Slipway | Installing a concrete slipway to the back of the marshalling area. Sheet piled or rock armour edging with | No Longer Proposed | No longer required | No longer required |

| Works | Description (September 2017) | Design Amendments (March 2018) | Current EIA Scope as set out within Scoping Opinion Nov 2017 | Required Adjustments to EIA Scope? |
|---|---|---|---|---|
| | infill and a concrete slab on top. | | | |
| LNG Storage | The new ferry vessel will operate on Liquid Natural Gas (LNG). It is assumed at this stage that the operation would require construction of a storage tank (30 m long and 3 m in diameter) and bunkering system for LNG. It is currently expected that the storage tank will be filled 2 to 4 times a week by road tankers with a maximum volume of 42000l per bunkering. The Vessel will bunker twice a week.<br><br>The installation will be equipped with an automatic Emergency Shutdown (ESD) system linked to gas detection and to emergency stop buttons, available to the operators.<br><br>Two options are being considered for the location of the tank: the Berthing Pier and the Old Pier. If the Old Pier location is selected for the LNG storage, the existing Old Pier will be demolished and a new tubular steel pile structure with a concrete deck will replace it. The existing Harbour Master's building and fuel tank will be relocated to the main pier widening. A connection between the tank and | For the purposes of the EIA this remains unchanged. | **Major Accidents and Disasters**: Risk of fire and impacts to other vessels | No change |

| Works | Description (September 2017) | Design Amendments (March 2018) | Current EIA Scope as set out within Scoping Opinion Nov 2017 | Required Adjustments to EIA Scope? |
|---|---|---|---|---|
| | the bunker door will be established underneath the deck passed the linkspan to the widened pier deck for bunkering. Additional dredging of approximately 5,000 $m^3$ may be required along the approachway to provide an alternative refuelling berth if the Old Pier location is selected.<br><br>The LNG storage and bunkering system will be designed in accordance with relevant guidance and regulations (e.g. the Control of Major Accident Hazards (COMAH) regulations, BS EN1473:2007, and ISO 20519:2017). Consents will be sought from the Scottish Environmental Protection Agency (SEPA) and the Health & Safety Executive (HSE) by CFL as the operator of the LNG storage and bunkering system (see Appendix B for a statement from CFL). | | | |

For the purposes of the EIA, two scenarios for the construction and delivery of the Proposed Development will now be considered, as set out below.

### Scenario 1: Single Integrated Delivery Programme

Under Scenario 1, all component elements of the Proposed Development as listed in the Table above will be delivered in an integrated and continuous delivery programme. This represents no change from the project description as set out within the Scoping Report and on which the current Scoping Opinion is based.

### Scenario 2: Phased Delivery Programme

Scenario 2 is an addition to the project parameters since the Scoping Report was written and since the Scoping Opinion was agreed. Under Scenario 2, the facilities to be delivered by the Proposed Development remain the same as scenario 1. Therefore the primary activity/receptor interactions already identified within the Scoping Report and Opinion remain unchanged.

In addition the EIA Report will now include consideration of the 'in-combination effects' of the construction tasks in the event that construction will be delivered split into three phases as described below:

- **Phase 1- Essential Upgrades**: this phase will include the work that would allow the safe operation of the service maximising resilience to the environmental conditions and allow effective operation of the service. The activities include the following:
  - widening of the approachway and repair/maintenance to existing approach;
  - re-fendering of the approachway with timber fenders;
  - widening of the berthing structure and installation of new fendering;
  - replacement and re-location of the linkspan,
  - installation of a new wave wall on the widened pier bankseat and lifting dolphins;
  - capital dredging requirement and dredge disposal;
  - installation of new services (including Lighting, Power, Telecoms, Potable water and drainage);

For the purposes of the EIA, the potential installation of the LNG fuel facilities has also been included in Phase 1.

- **Phase 2 – Marshalling Area & Ticket Office**: this phase will comprise land reclamation in the intertidal zone, to accommodate the new marshalling area, fisherman's compound and New Terminal building and storage building; construction of a new Terminal Building and storage building.
- **Phase 3 – Additional Activities**: this phase will include the demolition and removal of the old ticket office and will also include the installation of a covered walkway for foot passengers between the new ticket office and the pier, for vessel boarding.

The EIA will include a proportionate level of assessment for the identified project activity/receptor interactions for both of the above listed construction scenarios.

As discussed on our call, we believe the project remains fundamentally the same as the project on which the existing scoping report and opinion has been based. We believe the changes described above can be accommodated within the existing EIA scope as agreed in November 2017. We would be grateful for your review, and hopefully agreement with this position, at your earliest convenience.

**DRAFT**

AECOM Infrastructure & Environment UK Limited
1 Tanfield
Edinburgh
EH3 5DA
United Kingdom

T: +44 131 301 8600
aecom.com

**Project name:**
Uig Harbour Redevelopment EIA

**Project ref:**
60536743

**To:**
Redacted - Licencing Operations Team

And

Redacted
Marine Scotland Science

**From:**
Redacted

**Date:**
16 April 2018

# Memo

**Subject: Measurement of Antifouling Biocides in the Marine Environment at Uig Ferry Terminal.**

## Background

After the ban on the use of the antifouling compound Trybutyl Tin (TBT) on boats between the 1980s and 90s for large boats, extending to a complete ban in 2008, the naval industry started to reintroduce the use of metals, particularly copper and zinc, as the main active ingredients in antifouling paint formulations. However, these metals are not sufficient to prevent all forms of biological fouling, requiring the addition of other compounds or "booster biocides" for effective hull protection. Thus, biocides such as diuron, irgarol 1051, kathon, zinc and copper pyrithione have been incorporated into antifouling paint formulations worldwide.

There are two main pathways by which booster biocides can enter the environment (Thomas et al., 2002[1]):

1. By direct release from the paint surface during normal use; and
2. During misuse by pressure hosing of pleasure craft hulls directly onto the foreshore.

In some marinas, these concentrations are sufficiently high to pose a risk to aquatic life (Thomas et al., 2001[2]). These elevated levels are considered to be due to the persistence of the biocide compound(s) in seawater (Thomas, 2001[3]).

Concerns have been raised by Marine Scotland, through recent correspondence with Malcolm Rose (February 2018) with respect to the potential for harmful levels of booster biocides to exist within the sediments at Uig Harbour. As a result sediment sample laboratory testing for samples from both the proposed dredge pockets and also from the disposal site for the following biocides was requested:

- **Diuron** and its degradation products 1-(3-chlorophenyl)-3,1-dimethylurea(CPDU), 1-(3,4-dichlorophenyl)-3-methylurea (DCPMU) and 1-(3,4-dichlorophenyl)urea (DCPU)
- **Irgarol 1051** and its degradation product GS26575
- **Sea-Nine 211 (Kathon 5287)**
- **Zinc pyrithione**

[1] Thomas, K.V., McHugh, M. & Waldock. M. 2002. Antifouling paint booster biocides in UK coastal waters: inputs, occurrence and environmental fate. The Science of the Total Environment, 293, 117–127.
[2] Thomas K.V., Fileman T.W., Readman J. & Waldock M.J.2001. Antifouling paint booster biocides in the UK coastal environment and potential risks of biological effects. Marine Pollution Bulletin, 42,677 –688.
[3] Thomas K.V. 2001. The environmental fate and behaviour of antifouling paint booster biocides: a review. Biofouling 7, 73 –86.
[3] Ferrer I, Barceló D. 1999. Simultaneous determination of antfouling herbicides in marina water samples by on-line solid-phase extraction followed by liquid chromatography-mass spectrometry. Journal of Chromatography, 854, 197 –206.

### Potential Sources of booster biocide compounds in Uig Bay.

The booster biocide compounds listed above do not occur naturally within the marine environment. Consequently, in order to understand the likelihood that these compounds may currently be present within Uig bay, a review of the potential sources of these compounds has been completed.

1. Previous studies have shown that elevated concentrations of booster biocides are generally found in areas where there are high levels of yachting and leisure craft activity (Ferrer and Barceló, 1999[4]; Thomas et al., 2001[2]). Records of the use of anti-fouling products by small boats including leisure craft in Uig harbour are not available, therefore it has been assumed that there may be some use of booster biocides resulting in direct release to the environment from small boats using Uig Harbour and the ferry Terminal, however the Harbour Authority has confirmed that the number of small boats using Uig is low[5].

2. The activity of pressure hosing of small craft hulls directly onto the foreshore is a recognised key pathway for biocide pollution. This is unlikely to be a significant source in Uig Bay as there are limited areas for this activity to be carried out for leisure craft. In addition, any release of booster biocides as a result of pressure hosing/hull maintenance from the low number of small, working craft that use Uig harbour is considered likely to be limited primarily to the localised area surrounding the 'drying out' berth for the working fishing and other small vessels associated with the existing fishermen's compound.

3. In addition, studies also indicate that elevated concentrations of these booster biocide compounds are generally associated with areas, such as marinas, where there are low water exchange rates (Thomas et al., 2001[2]). Whilst Uig is a Bay, it has an open connection to the wider Loch Snizort and is subject to regular water exchange via tides and wave driven water currents. The ebb and flow tidal movements are shown in Figure 1 at the end of the document. However, water speeds and direction is also significantly affected by wind direction, as shown in Figure 2, therefore water movements in some areas of the Bay are much higher.

4. CalMac, as ferry operator has confirmed the application of anti-foulant product to their vessel approximately every 5 years. The product used is compliant with the International Convention on the control of Harmful Anti-fouling System on ships as adopted by the IMO in 2001 (IMO AFS/CONF/26).

### Existing Baseline Data

5. Anti-foulant paints containing booster biocides most usually also include concentrations of certain metals, particularly copper and zinc[6]. Consequently, in the event that elevated concentrations of booster biocides were present within sediments to be dredged, or within the wider bay, elevated concentration of these metals would also be expected.

6. No site specific data are currently available to characterise the existing concentrations of booster biocides within the sediments in Uig Bay. There are however, data available on the concentration of other contaminants, including copper and zinc, that may also be present in anti-foulant paints and thus co-occur with biocide compounds.

7. The concentration of zinc and copper, and other metals, in the sediments around Uig harbour and in the wider bay were measured in 2016 and again in 2018. There have been four samples taken within dredge Pocket 1 (2016 station G, 2018 GI stations BH01, DS01 and DS02 (Figure 3)) that were analysed for sediment contaminants.

8. Cefas Action levels 1 and 2 for copper are 30 and 300 mg/kg. The results from the four stations are between 37 and 97, above Cefas Action Level 1 but below Cefas Action Level 2. However, the highest concentration of copper, at 230 mg/kg, was found at 2016 survey station A which is outside the Bay in Loch Snizort (Figure 3 below). Concentrations of copper in the disposal site were low, between 21 and 27 mg/kg indicating a patchy distribution which may be related to water movements.

9. Zinc was found at concentrations below Cefas Action Level 1 (130 mg/kg) at all stations with concentrations between 77 and 120 mg/kg. In the proposed disposal site search area, the concentration of zinc ranged from 93 to 109 mg/kg.

10. Other metals, in particular chromium and nickel, and PAH compounds, were found at higher concentrations (in relation to Cefas Action Levels) at all stations in the dredge pocket but these were also found to be at similarly high concentrations at all other stations sampled in Uig Bay in 2016 and in the proposed sediment disposal site in 2018.

[4] Ferrer I, Barcelo´ D. 1999. Simultaneous determination of antfouling herbicides in marina water samples by on-line solid-phase extraction followed by liquid chromatography-mass spectrometry. Journal of Chromatography, 854, 197 –206.
[5] An estimated 27 boats use the harbour regularly. The frequency of use is sufficiently low that no preauthorisation/registration system for boats when they arrive and leave is required. (Pers. Com. Tony Usher, Harbour Manager (27/03/2018)
[6] Fay, F. et al. 2010. Booster biocides and microfouling. Biofouling, 26(7), 787–798.

## The Proposed Development

Activities associated with the Proposed Development are not expected to introduce any new sources of potential booster biocide contamination to the Uig Harbour area.

Dredging activities will result in the mobilisation of existing sediments from two locations at Uig Harbour: Pocket 1 will include dredging of 26,842 $m^3$ of sediment from around the existing ferry berth. Pocket 2 will including dredging of up to 1150$m^3$ of sediment from around the existing fishermen's compound and small boat dry-berth area.

- Dredge Pocket 1: Based on the consideration set out above, sediments from proposed dredge pocket 1 (ferry berth) are considered to be at low risk of significant existing booster biocide contamination. This area of the harbour is not used by small boats as it is the ferry berth. CalMac has confirmed the anti-fouling regime used on their vessel complies with IMO requirements. The anti-fouling paint used by Calmac is Intersmooth 7460HS SPC, a TBT free self-polishing copolymer. The paint includes a patented slow release copper acrylate and the following biocides[7]:
  - BEA754 = Cuprous oxide (1317-39-1)
  - BEA757 = Copper, bis(1,hydroxy-2(1H)-pyridinethionato O,S)-T-4 copper (copper pyrithione)

  The sediments in the region of the ferry berth do not have significantly elevated levels of copper (particularly when compared to sediments outside the bay) consequently, it is considered unlikely that high concentrations of the related biocides will be present in the absence of elevated copper levels.
- Dredge Pocket 2: It is considered that potential does existing for sediments from proposed dredge pocket 2 (fishermen's area) to contain existing booster biocide contamination, as a result of the presence of small boats in this area and the potential maintenance activity at the drying-out berth.

Consideration of the evidence above indicates that the environmental risk associated with the presence and potential mobilisation of booster biocide contaminated sediments in Uig Bay can reasonably be considered to be low and would most likely be limited to area in proximity to the small vessel berths and drying out area.

## Recommendations

Sediments from dredge pocket 1: Sediments from dredge pocket 1 are considered to be at very low risk of containing booster biocide contamination. It is therefore proposed that sediment from dredge pocket 1 will be transported to the dredge disposal area and deposited within the terms of operation agreed as part of the associated dredge disposal area licence.

Sediments from dredge pocket 2: Sediments from dredge pocket 2 are considered to have the potential to contain booster biocide contamination, though this is likely to be low on the basis of the low volume of small boats using Uig Harbour. It is therefore proposed that the EIA will include the following commitments:

- sediment samples from dredge pocket 2 will be subject to laboratory testing for the requested booster biocide compounds prior to construction commencing as a condition of the construction licence.
- In the event that elevated levels of the compounds of concern are found at pre-construction stage them sediment from dredge pocket 2 (i.e. up to 1150$m^3$) will be removed from site for safe onshore disposal in accordance with relevant waste management protocols.

Assuming the above recommended mitigation is implemented it is not considered necessary to complete laboratory testing for booster biocide compounds at this stage, i.e. to inform the EIA.

[7] Details available from the website of the Japan Paint Manufacturers Association at: http://www.toryo.or.jp/eng/imo-e/83e.pdf

**Figure 1. Uig Bay flood and ebb water movements – tides only**

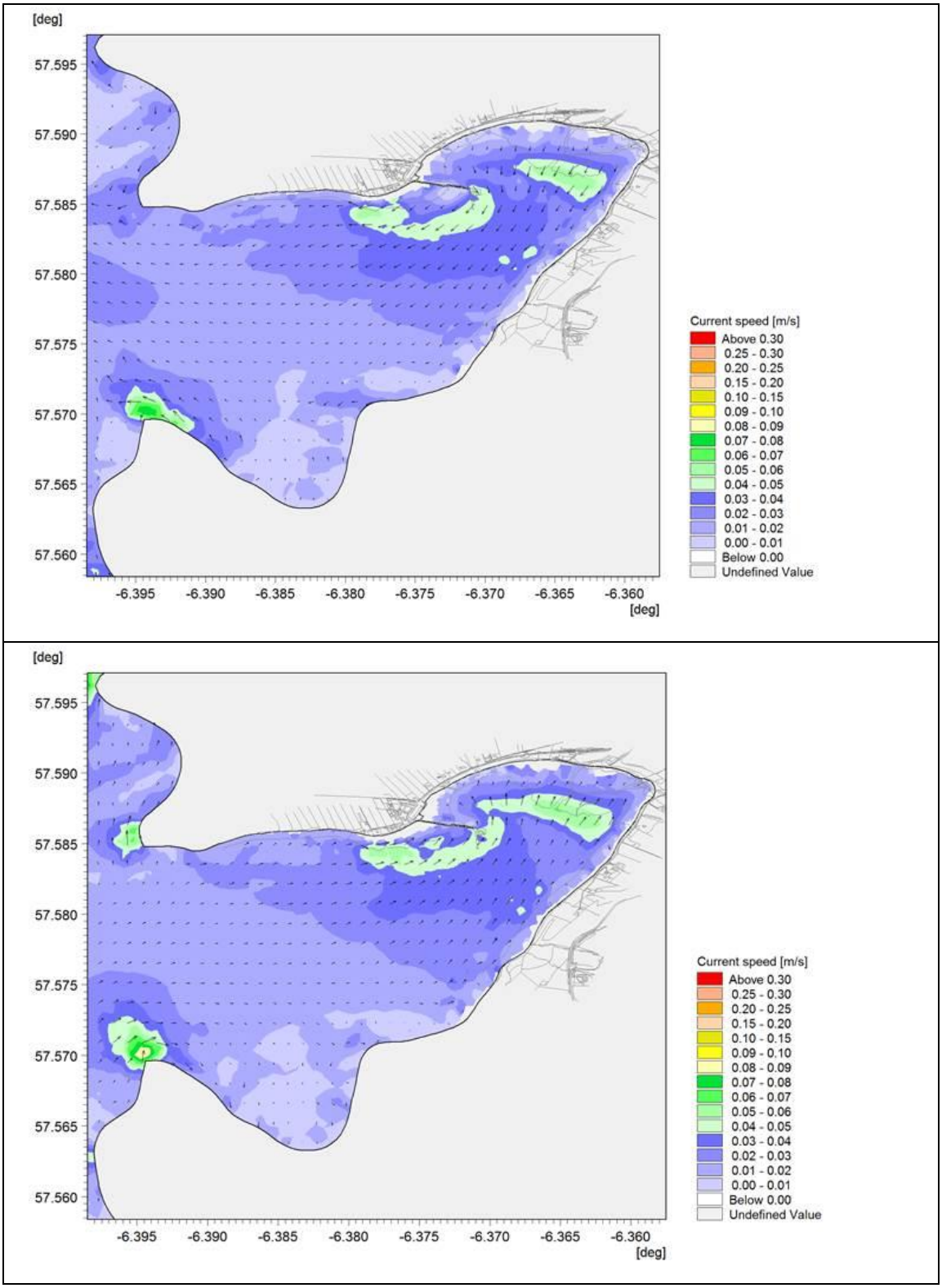

**Figure 2. Uig Bay flood and ebb water movements – tides and a southwesterly wind**

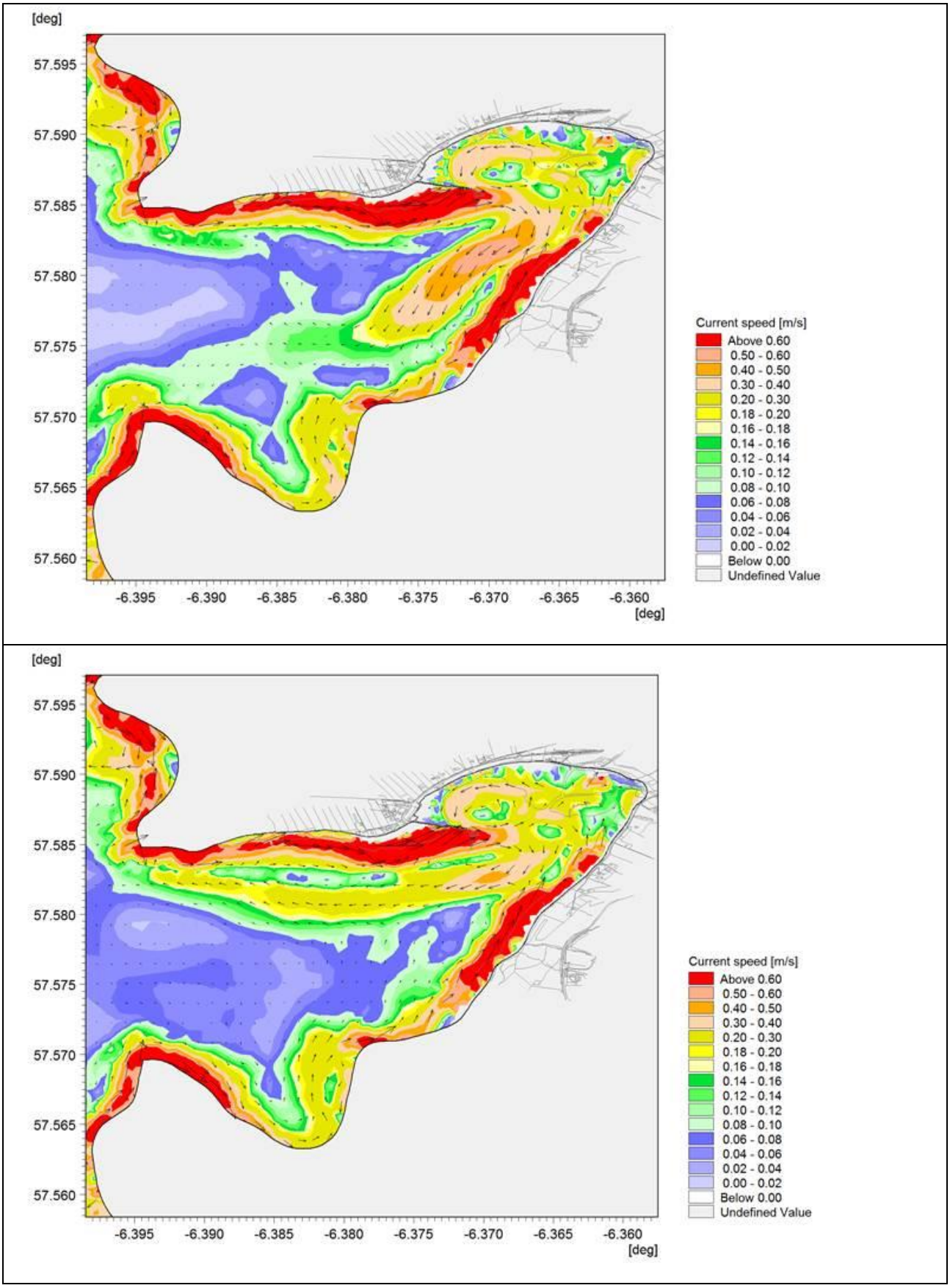

**Figure 3. 2016 Sediment Sampling stations**

AECOM Imagine it. Delivered.

26 April 2018

Redacted
Team Leader
The Highland Council
Development and Infrastructure
Service - Portree

**Uig Harbour Redevelopment Update - Anticipated Changes to Construction Traffic Levels**

Dear Reda

Uig Harbour, located in Uig Bay, at the north eastern end of the Isle of Skye, forms part of the Uig, Tarbet, Lochmaddy triangle, providing lifeline ferry services to the communities of the Western Isles. The Highland Council (THC) is required to undertake redevelopment works to Uig Harbour to accommodate a new larger vessel. The Proposed Development consists of onshore and offshore elements associated with the redevelopment of the Harbour and therefore falls within both THC's and Marine Scotland's jurisdiction. Given the scale of the works and the proximity to a number of marine protected areas, the Proposed Development is deemed to require an EIA. The requirement to undertake an assessment of operational and construction Access, Traffic and Transport impacts and effects was previously agreed to be scoped out of the EIA in the scoping response received from THC Planning Department on 14 December 2017 and further clarifications received on 18 December 2017 based on the scoping report submitted to the planning authority on 28 September 2017.

A series of design developments have been incorporated into the project design since the scope of the EIA was agreed in December 2017. The majority of these design changes relate to activities proposed to take place below Mean Low Water Springs (MLWS). These have been discussed with Marine Scotland, as set out within the Memo to Jessica Hay dated 15 March 2018, and included here as attachment 1.

You will note that the design changes are highlighted in red in attachment 1. Whilst the primary effects of these design developments will take place below MLWS, we particularly note that the proposals to widen the existing berth now include the installation of a circular cell solid structure. Whilst construction will take place within the marine environment, supporting construction traffic will be generated on the road network. An increase in construction related traffic when compared to the levels anticipated at scoping stage, as a consequence of changes to the construction methodology is now anticipated. We have therefore reviewed the currently agreed scoping position relating to potential for construction traffic impacts, in the light of these design changes. No change is proposed to the anticipated levels of operational traffic as previously discussed and agreed.

**Background / Baseline**

Access to Uig Harbour is from the A87 trunk road (T) which falls within the jurisdiction of Transport Scotland. The A87 (T) serves as a strategic route connecting Uig Harbour to Portree, Kyle of Lochalsh and Invergarry. Local roads connect to the A87 (T) for localised access. The A87 (T) is a two-way single carriageway of approximate 7.3 m width with provision of footways, dedicated crossings, bus stops and street lighting intermittently provided along its length.

It is considered that the A87 (T) is a receptor of High Sensitivity based on its regional context. Baseline traffic flow information for the A87 (T), on the Isle of Skye, has been extracted from Department for Transport (DfT) Counters. These are shown in the following table. The locations of the DfT Counters are shown in the following figure.

| DTI Counter Reference | Average Annual Daily Traffic (AADT) | Heavy Goods Vehicles (HGVs) |
|---|---|---|
| 1133 | 1334 | 42 |
| 50924 | 1468 | 60 |
| 30944 | 3465 | 112 |
| 1131 | 3586 | 207 |
| 50928 | 2037 | 115 |
| 20940 | 3330 | 184 |
| 80387 | 5679 | 257 |
| 10943 | 3934 | 186 |


**DfT Traffic Counter Locations and 2016 AADT Flows**

There is no published guidance on the assessment of transport and traffic impacts associated with temporary construction activities. Reference is therefore made to longer term operational impact guidelines.

The IEMA Guidelines (1993) recommends that the following rules be considered when assessing the increase in traffic flow, associated with a proposal, on highway links and when identifying the area of influence for assessment purposes:

- Rule 1: Include highway links where traffic flows would increase by more than 30% (or the number of Heavy Goods Vehicles (HGVs) would increase by more than 30%); and
- Rule 2: Include any specifically sensitive areas where traffic flows would increase by 10% or more.

The IEMA Guidelines (1993) acknowledge that day-to-day variations of traffic on a road can frequently be at least + or – 10%. At a basic level, it should therefore be assumed that projected changes in traffic of less than 10% create no discernible environmental impact. Absolute changes (number of vehicles) are equally relevant since percentages alone could be misleading.

It is considered that the 30% threshold from the IEMA Guidelines (1993) is the appropriate rule to apply when determining if the development warrants an assessment of environmental effects.

The average volume of daily construction traffic associated with the Proposed Development has been estimated as 78 two-way vehicles of which 55% of movements would be made by HGVs (22 one-way HGVs or 43 two-way HGVs)[1]. The resultant daily uplift in vehicle numbers is shown in the following table.

**Proposed Development Construction % Impact**

| DfT Counter Reference | AADT | Average Annual HGVs | Daily Construction Traffic | Daily HGV Traffic | % Impact AADT | % Impact in HGVs |
|---|---|---|---|---|---|---|
| 1133 | 1,334 | 42 | 78 | 43 | 6% | 102% |
| 50924 | 1,468 | 60 | 78 | 43 | 6% | 72% |
| 30944 | 3,465 | 112 | 78 | 43 | 2% | 38% |
| 1131 | 3,586 | 207 | 78 | 43 | 2% | 21% |
| 50928 | 2,037 | 115 | 78 | 43 | 4% | 37% |
| 20940 | 3,330 | 184 | 78 | 43 | 2% | 23% |
| 80387 | 5,679 | 257 | 78 | 43 | 1% | 17% |
| 10943 | 3,934 | 186 | 78 | 43 | 2% | 23% |

In respect of all traffic movements the uplift in traffic flows as a consequence of construction of the Proposed Development does not exceed 30% thus does not warrant an assessment of environmental effects as per Rule 1 of the IEMA Guidelines.

It is recognised that the daily uplift in HGVs does exceed 30% however it is important to recognise that this percentage increase is attributable to the low base volume of HGV traffic and does not consider the absolute proposed change in HGV traffic of just 22 one-way movements per day. Moreover it is important to recognise the temporary nature of construction traffic. It is also important to note that the HGV percentage impact assumes all construction movements will route via every traffic counter and therefore does not account for any localised trips. It is therefore proposed that construction related traffic impacts are scoped out of the Proposed Development EIA.

AECOM recognise that good practice would dictate that a Construction Traffic Management Plan (CTMP) is prepared to support the Proposed Development which would set out measures to mitigate any effects of the Proposed Development for example relating to delivery control and dust & dirt. A CTMP would therefore be provided which would also include more detail on the volume of construction related vehicle trips and routing in consultation with THC Transport Planning Team and Transport Scotland. The CTMP can also consider any cumulative construction related implications.

I trust you find the proposed approach satisfactory, should you have any questions or queries I would be delighted to discuss these in more detail.

Yours sincerely,

Dominique

Redacted
AECOM Limited
E: Redacted

Redacted

Redacted

[1] For note, the construction traffic volumes set out in this letter are a reproduction of the traffic flows previously scoped out of the EIA plus the anticipated increase in traffic flows due to changes to the construction methodology. The volumesin the table therefore represent updated anticipated total construction traffic associated with the Proposed Development