



Method Statement

Severn Estuary – CIP4 Data Collection –Estuarine Grab Survey

Project Name:	Severn Estuary – CIP4 Data Collection – Estuarine Grab Survey
Project Reference:	P15623
Division:	Physical Data, Water Management
Prepared by:	R. McCulloch
Reviewed by:	M. Hubble / R. Wells
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1. Health and safety

1.1 APEM Integrated Management System

APEM Group has an Integrated Management System aligned to ISO45001, ISO14001 & ISO9001 to support effective health, safety, environmental and quality (HSEQ) management. This includes documented processes and procedures to support operational teams and monitor HSEQ performance.

1.2 HSEQ Support

APEM Group has a central HSEQ & Sustainability team who are available to support operational teams in carrying out safe and successful work. The team can be contacted via hseqcomms@apemltd.co.uk

1.3 Risk Assessments

Project specific risk assessments are completed in advance by a team member experienced in the activity. These are reviewed by competent risk assessment reviewers, who will approve once satisfied they are suitable and sufficient.

1.4 Dynamic risk assessment & start when safe

Operational teams carry out a dynamic risk assessment and briefing upon arrival on site. Teams are given “start when safe” authority – meaning they will start work only when satisfied that all necessary controls are in place.

1.5 Emergency procedures

Location of work sites, nearest hospital and emergency service rendezvous point are detailed on risk assessments (GPS or what3words).

In the event of an emergency, site teams will contact the emergency services by calling 999 (note HM Coastguard is a 999 emergency service). All field teams will include at least one qualified first aider.

1.6 Health & Safety Events

All events (incidents & near-misses) that occur on site will be reported. The line manager will be informed immediately of any event that occurs whilst on site, and this will be reported formally via APEMs online reporting tool as soon as it is safe to do so. APEMs *Event Reporting & Response* procedure is available upon request.

If the emergency services are not needed but medical assistance is required, staff will be transported to the nearest Minor Injuries Unit.

2. Project team and Methodology

2.1 Client

Name: AtkinsRéalis

Project Contact: Helen Gibbs

Email: Helen.Gibbs@atkinsrealis.com

2.2 Project Manager / Director

Name: Marc Hubble

Job title: Associate Director – Transitional and Coastal Waters Programme

Contact number: 07854 499 737

Email: m.hubble@apemltd.co.uk

2.3 Field team leader

Name: Kassie Radford

Job title: Senior Hydrometry Consultant

Contact number: 07721486314

Email: K.Radford@apemltd.co.uk

2.4 Project Background

As part of the National Chemical Investigation Programme (CIP), AtkinsRéalis and APEM are investigating the fate of persistent chemicals within Wastewater Treatment Works (WwTW), and the associated impacts within discharges into the Severn Estuary. A programme of targeted field surveys and data collection has been designed to inform and validate the development of an estuarine water quality model. The model will allow quantitative impact assessments and future options appraisals to be delivered.

The field sampling includes water quality sampling at Waste Water Treatment Works, in rivers and in the Severn Estuary. The proposed field sampling also includes sampling of a small number of sediment grabs – for chemical analysis.

Note that for the purposes of the Band 1 licence submission, this method statement only provides information relating to the collection of sediment grab samples in the Severn Estuary for the Project.

2.5 Sampling Methodology

Benthic grab samples will be collected to obtain chemistry data for sediments in the Severn Estuary.

A single grab sample will be collected at 5 stations (no replicates) across the entire estuary; two of which are anticipated to be in NRW waters (SWE2 and SWE3 – see Figure 1).

Samples will be collected using a mini-HAMON or Day Grab which will sample a surface area of 0.1m² only.

One survey will be conducted in summer (target dates of sampling between 31st August and 10th September); and one survey will be conducted in winter (likely January but dates are to be confirmed).

The locations of the grab stations are indicated in Figure 1 and Table 1.



Severn TraC

Survey Sites

Legend

- ✕ Estuary (Tidal) & Sediment Quality



Notes

GB Topographic: Contains OS data © Crown Copyright and database right 2025
 Contains data from OS Zoomstack
 World Topographic Map: Esri, DeLorme, Garmin, METI/NASA, USGS
 Contains Ordnance Survey data © Crown copyright and database rights (2025). OS OpenData.

Coordinate System:
 British National Grid

0 5 10 Kilometers

Scale: 1:170,000 @A3 Date: 20/08/2025 Drawn by: RM Checked by: MH Approved by: DR

Riverview
 A17 The Embankment Business Park
 Heaton Mersey
 Stockport
 SK4 3GN
<http://www.apemltd.com>
 +44 (0) 161 442 8938



Figure 1: Estuarine grab station locations.

Table 1: Coordinates of grab stations.

Estuarine Locations	NGR	Latitude	Longitude
SWE 1	ST2826460456	51.338647	-3.0312061
SWE 2	ST2744275678	51.475390	-3.0461233
SWE 3	ST3530081299	51.526880	-2.9340292
SWE 4	ST5043583943	51.552185	-2.7162559
SWE 5	SO6657802222	51.717721	-2.4851925

2.6 Laboratory analysis

Sediment samples will be sent to a third party laboratory for analysis of the following parameters:

- Mercury
- Perfluorooctanesulfonic acid (PFOS)
- PBDE (PBDE; BDE-28, BDE-47, BDE-99, BDE-100, BDE-153, and BDE-154)
- Benzo(a)pyrene
- Benzo(b)fluoranthene
- Fluoranthene
- Organic carbon content,
- Particle size analysis.

2.7 Training requirements

Field staff will have the following training:

- Safe Working in Water
- Outdoor First Aid
- Personal Survival Techniques (PST)
- ENG1

2.8 PPE

Staff will wear PPE suitable for working on deck an inshore vessel i.e. Suitably rated flotation suit or drysuit, auto-inflating lifejacket, steel-toe capped waders/boots, cold-weather PPE when required (thermal underlayers, waterproof gloves, hat, heated socks, snood).

2.9 Vessel

The work will be conducted from the Severn Sea vessel (31 metres length) operated by Keynvor Morlift (KML).

2.10 Approvals and Licensing

Vessel access and movements permission

The relevant harbour authority / harbour master is responsible for all day to day operations within their jurisdiction. APEM with KML will seek approvals (including Notice to Mariners) that are needed to work in the Severn Estuary from the relevant harbour master - required prior to works going ahead.

Marine licencing

A Marine Licence exemption application has been submitted to the Marine Management Organisation (MMO) for the benthic grabs in MMO waters. As part of the exemption submission, it has been stated that we consider the works would be unlikely to have likely significant effects (LSE) on European sites.

This method statement supports a Band 1 licence application to NRW for proposed sediment sample sites located within their jurisdiction.

As the proposed sediment sample sites are not located within the Crown estate seabed, a Crown Estate license is not required - which has been confirmed via email though correspondence with Carter Jonas (operating on behalf of the Crown Estate).

3. Data Management

Data management and reporting field results will be checked, and quality control undertaken by a member of APEM's specialist water quality team and any queries discussed with the sampling team as soon as possible. A log will be taken of pertinent information e.g. date, time, weather, tidal state, time +/- high tide, site NGRs, surveyor details, equipment details.

4. Biosecurity

APEM are aware of the dangers of transferring invasive non-native species (INNS) among waterbodies and therefore we will deploy biosecurity procedures at all times, including observing the Check, Clean, Dry campaign. All our equipment is thoroughly cleaned, disinfected and dried between survey sites and our field team are experienced in the identification of INNS. Our field team includes people trained to deal with invasive species and they will take particular note to record any invasive non-native species they encounter at any of the grab stations.