The Sizewell C Project

6.3 Volume 2 Main Development Site
Chapter 8 Conventional Waste and Material Resources
Appendix 8A of the Environmental Statement: Waste Management Strategy Addendum

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Revision 01

Sizewell C Project

Sizewell C Waste Management Strategy Addendum: Key Performance Indicators

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1 INTRODUCTION

The Waste Management Strategy included in the Sizewell C Development Consent Order application (APP-194) sets out high level aims for waste management taking into account the waste hierarchy and proximity principle.

The project specific objectives are to:

- ensure waste minimisation through prevention, and where waste is produced, that is re-used, recycled, recovered or disposed of in the most sustainable manner;
- provide measures to improve sustainability and minimise vehicle movement where possible

The project will aim to drive out waste at every stage of the design, procurement, and construction processes by using the principles of a circular economy.

1.1 Purpose

The purpose of this addendum is to provide further detail on the waste targets that support the ambition to maximise diversion of waste from landfill and maximise retention of suitable excavation material on-site for beneficial use. Performance against the waste targets will be measured using Key Performance Indicators (KPIs). This will enable improvement action, if required, to ensure that the waste targets are achieved.

1.2 Scope

This document is specific to the construction phase of the project which is the period where most waste will be produced. Geographically, it covers the main development site and all associated development sites as described in the DCO application. It does not apply to the management of radioactive wastes.

1.3 Definitions

Term / Abbreviation	Definition
EDRMS	Electronic Document and Records Management System
SZC	Sizewell C
CEEQUAL	Civil Engineering Environmental Quality Assessment and Award scheme
KPI	Key Performance Indicator
EIA	Environmental Impact Assessment
BRE Global	formally the Building Research Establishment
WRAP	Waste and Resources Action Programme
CL:AIRE	Contaminated Land: Applications in Real Environments
MRF	Materials Recycling Facility
WRAP	Waste Resources Action Plan

1.4 References

Ref	Title	Examination ref
1	Volume 2 Main Development Site Chapter 8 Conventional Waste and Material Resources	APP-193

Ref	Title	Examination ref
2	Volume 2 Main Development Site Chapter 8 Conventional Waste and Material Resources Appendix 8A Waste Management Strategy (March 2020)	APP-194
3	CEEQUAL Technical Manual | UK & Ireland Projects	https://www.ceequal.com/

2 GUIDANCE AND BEST PRACTICE

2.1 UK Waste Targets for Construction and Demolition Waste

The target for the recovery of non-hazardous construction and demolition waste in England for 2020 is 70% (Waste Management Plan for England 2021). The latest available figures (2016) for the estimated recovery rate of construction and demolition waste for England is 92.1%, and they have been consistently over 90% since 2010, comfortably achieving the UK target. Therefore, specific waste targets for this scheme have been derived from current best practice (see below) to drive improved waste recovery rather than align with national targets set for the construction sector.

2.2 Best Practice

2.2.1 CEEQUAL

CEEQUAL is an evidence-based sustainability assessment scheme for civil engineering and infrastructure works, run by BRE Global. It has been applied to large infrastructure projects across the UK including the London 2012 Olympic Games, Crossrail and HS2. The aim of the scheme is to drive environmental and sustainability best practice through client engagement, the design process and during construction.

CEEQUAL benchmarks projects using a scoring metric over eight topic areas including waste and resource management. Version 6 of the scheme (which is current at the time of writing) includes targets for the diversion of waste from landfill for construction and demolition waste and beneficial re-use onsite targets for excavation waste. It is these targets that have been used in Section 3.

2.2.2 Construction Waste Segregation

Following good site practice construction waste will be segregated into separate waste streams such as timber, metal, plastic and general waste. Where there is insufficient space for individual waste skips or access is restricted mixed waste skips may be used, which will then be sorted off site. All construction waste will be taken to a permitted Waste Recycling Facility where it will be sorted and processed into recylates for recycling and recovery.

In the UK there is currently no standardised set of recyclate waste streams, therefore the setting targets for specific waste streams may unfairly advantage some operators of MRFs over others. As a result, there is no intension to set targets for specific waste streams until a waste contractor has been appointed for the project.

2.2.3 On-site Waste Consolidation

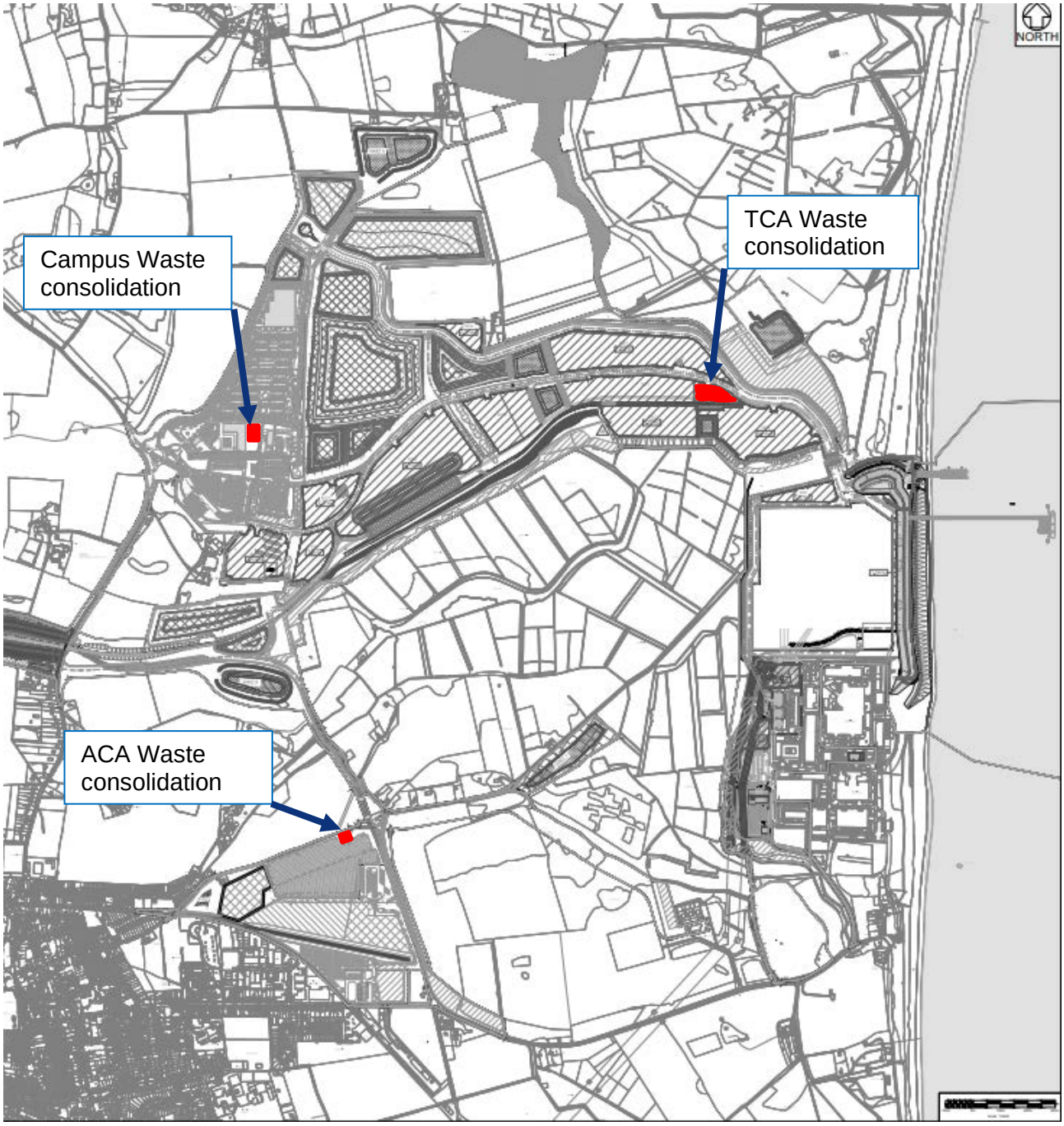
The use of on-site consolidation centres can improve the segregation of materials on site, improving the quality and value of the recyclates. The consolidation process also provides an opportunity to compact and bale waste thereby reducing the area needed to store waste and vehicle movements.

Within the Sizewell C Waste Management Strategy it is proposed that two waste consolidation centres are likely to be required to allow for the storage of waste arising from the construction phases: one for construction waste arising from the power station and another to deal with construction waste arising from the main development site.

The aim of the consolidation centre would be to ensure that waste is provided in the most suitable form possible to maximise the potential for recycling, to minimise double handling and to minimise the areas needed to temporarily store waste.

Plate 1-1 shows the indicative locations of waste consolidation centre(s).

Plate 1-1 – Indicative Waste Consolidation Centres



3 SIZEWELL C WASTE AND RESOURCE MANAGEMENT TARGETS

The key waste types from the works will be construction, demolition and excavation waste. The Waste Resources Action Plan (WRAP) have defined these wastes as:

- **Demolition waste:** unwanted material arising from the demolition or strip out of an existing structure.
- **Excavation waste:** unwanted material arising from excavation activities such as reduced level dig and site preparation and levelling, and excavation of foundations, basements, tunnels, and service trenches, typically consisting of soils and stones.
- **Construction waste:** any other unwanted material produced at a construction site which is not classified as Demolition or Excavation waste.

3.1 Target 1 – Construction Waste

The target of at least 98% diversion from landfill (by volume or weight) of non-hazardous construction waste has been set for the project. The target has been taken for the CEEQUAL manual version 6. This will be achieved through on-site segregation and consolidation of waste streams and the subsequent reuse, recycling and recovery off site at material recycling facilities.

3.2 Target 2 - Demolition Waste

The target of at least 85% by volume or 95% by weight diversion from landfill of non-hazardous this demolition waste has been set. The target has been taken for the CEEQUAL manual version 6. The removal of existing substructure and foundations along with the temporary infrastructure during construction (including construction roads, temporary buildings car parks and other temporary structures) will result in the generation of demolition wastes. Most of these wastes will be generated at the end of the construction phase.

3.3 Target 3 Excavation Materials

A target of 100% of suitable excavation material will be re-used in the construction of the proposed development. This target aligns both with CEEQUAL target in Manual 6 and the project ambition to retain all excavated material within the main site and associated development sites.

The type and quantity of excavated materials anticipated to arise from each of the associated development sites is being considered as part of the enabling works design. The details will be confirmed as part of any Materials Management Plan developed at the detailed design stage.

In order to achieve this targets it is anticipated that excavation materials will be moved between the main and associated development sites using the CL:AIRE Definition of Waste Code of Practice or other frameworks for the re-use of materials (e.g. WRAP Quality Protocols and waste exemptions).

4 MONITORING

The waste performance of the proposed development will be routinely monitored against the construction, demolition and excavation waste targets in Appendix A1, to identify any areas of potential improvement and to ensure that the waste targets will be met.

A review of the waste KPIs set out in Appendix A2 will be undertaken and recorded on a quarterly basis. The data will be collected and collated from Tier 1 contractors using a database reporting tool.

APPENDIX A CEEQUAL WASTE TARGETS & KPIS

A.1 CEEQUAL

Waste targets have been taken from the CEEQUAL manual (version 6) with the ambition of achieving the highest possible score. The manual provides definitions and guidance around these waste targets to ensure that waste data is measured and reported in a consistent manner.

A.1.1 Waste Targets

Waste Type	Diversion from Landfill (by volume)	Diversion form Landfill (by weight)	Beneficial re-use onsite (by volume)
Construction	98%	98%	-
Demolition	85%	95%	-
Excavation	100%	-	100%

Waste targets derived from CEEQUAL version 6.

A.2 Waste Key Performance Indicators

KPI Waste data will be routinely collected to support the delivery of the waste targets and will include:

Key Performance Indicator	Metric	Reporting Frequency
Construction waste diverted from landfill	%	Quarterly
Demolition waste diverted from landfill	%	Quarterly
Excavation waste re-used on onsite	%	Quarterly

Other waste data indicators (e.g. tonnes/£100 or tonnes/million hours worked) are likely to be collected on a more frequent basis (monthly) to inform and support the attainment of the three main waste targets.