

Environment Dashboard - Period 13 2015-16

Period Update
Quarterly Update

Version for Issue October 2016 - Crossrail contract numbers and names and Crossrail worksite names have been deleted and numbers shown in the dashboard (e.g. C001 and Site 1) have been used to illustrate how the information was displayed. Details of works on site have been deleted and replaced by XXXXX.

Period Overview

Key Accomplishments

Wallasea won the Sustainable Resource Management Award on 25 February 2016 at the Environment Agency's Project Excellence Awards evening. The submission was made by the contractor Bam Nuttall on behalf of the project recognising all parties involved including Crossrail, Bam Nuttall, RSPB, Environment Agency, APBMER, AECOM, Natural England, and Crouch Harbour Authority.

Key Issues

The key issue for this period is for contractors to undertake a full and accurate assessment of the recycled content of their materials and identify opportunities for improvement. The reporting shows many contracts have not yet achieved this.

Progress update

A new noise metric has been added to the dashboard. Targets for each contract have been set based on the activities undertaken at the site and the sensitivity of the surrounding area. Whilst performance increased during 2014/15 (from an average score of 1.9 to an average of 2.2), the performance did not reach the targets set.

Incidents

31

Central Environment Commentary: There were seven Level 3 incidents and seventeen Level 4 incidents during P13. Twenty-four incidents in total were reported for the central section, a decrease from P12 when twenty-eight were reported.

Surface Commentary: There were eight environmental incidents in Period 13; seven Level 3's and one Level 2. The Level 2 incident occurred due to XXX at Site 1.

Complaints - Locations with highest number of complaints

Central: Complaints numbers decreased across the central section from thirty-five in P12 to nineteen in P13. Eighteen complaints were related to noise and vibration and one to site lighting. The most complaints (ten) were reported at Site 5 due to XXXXX.

Surface: There were 27 complaints received across the surface section during P13, which was the same number as last period. Twenty-six complaints related to noise and vibration and one related to ecology.

Complaints by Category

Construction Waste Diverted from Landfill

Rolling 13 Period Performance

Central: Crossrail remains on target for the recycling and reuse of its construction waste. 95% of waste was diverted from landfill during P12, less than in P11 when 99% was diverted. A workstream is underway to validate the recycling rates used by contractors.

Surface: The surface section met the stretch target this period for the recycling and reuse of its construction waste with 95% of waste diverted from landfill; a significant improvement following the 73% that was diverted during P11.

Noise

Contract	Round 5 Performance	Agreed Target	Current Performance	RAG score
AREA 1				
C001	3	2	1+/-2	●●●●●
C002	2+	3	3	●●●●●
C003	1	2	1+	●●●●●
AREA 2				
C004	2	2	2	●●●●●
C005	1+	2	2	●●●●●
C006	2	2	2	●●●●●
C007	3	3	3	●●●●●
C008	3	3	3	●●●●●
C009	3	3	3	●●●●●
C010	2+	3	2	●●●●●
C011	2+	3	2+/-3	●●●●●
C012	2+	3	2+	●●●●●
C013	2+	3	1+	●●●●●
C014	1	1	1/1+	●●●●●
C015	1+	2	1+	●●●●●
AREA 3				
C016	2	3	2/2+	●●●●●

Noise targets were assigned to each contract according to the sensitivity of the site to noise disturbance. The target scores are: 1 - Compliant, 2 - Beyond Expectations, 3 - World Class.

The measures that can be taken to manage noise and vibration in order to achieve the agreed target are outlined in Crossrail's Noise Supplier Performance Matrix. Noise action plans specific to each contract have been produced in accordance with this. Evidence of the steps taken to manage noise are assessed every period and used to track current performance.

C010 and C013 need to work through their noise action plans in order to achieve their target score.

Energy in Construction

14.03%

Crossrail's corporate carbon emissions target is to reduce construction energy by 8%. All contracts have submitted robust energy models that clearly demonstrate their commitment to meeting this. Overall energy reduction across the project is 14.03% and therefore Crossrail is exceeding the target. Contracts performing below 14.03% are shown in amber. C020 construction energy savings have remained the same, however it is now below the Crossrail overall average. C010 construction energy savings have increased due to the addition of being on a green tariff. C014 has transitioned to the CRL energy model, this has allowed the use of a green tariff and initiatives such as powering hybrid tower lights from mains electricity instead of diesel to be added their savings, hence the increase in their construction energy savings.

Operational Energy

This graph depicts the operational power loading for stations, shafts and portals. It compares the predicted power loading at design stages E and F and is based on the load schedules for the stations. The graph shows power loads for Stage E (Blue), Stage F (Orange) and Stage F code 1 (Grey). Four designs have now been accepted as code 1 for procurement.

There are four main reasons for the increase from stage E to F including: 1) additional loads added, 2) stage E figures were a calculated approximation, 3) diversity figures were an approximation, and 4) human error.

It should be noted that the actual loads will not be determined until commissioning and testing, but these are expected to be between 10-20% less than the maximum loads identified in the graph. C020 have reduced their operational energy from Stage E to F by 23%.

BREEAM/CEEQUAL

Contract	BREEAM (B) CEEQUAL (C)	Progress
AREA 1		
C001 SITE 1	C	Achieved
C002 SITE 2	C	Achieved
C003 SITE 3	C	N/A
C004 SITE 4	C	N/A
C005 SITE 5	C	N/A
AREA 2		
C006 SITE 6	C	●●●●●
C007 SITE 7	C	●●●●●
C008 SITE 8	C	●●●●●
C009 SITE 9	B	●●●●●
C010 SITE 10	B	●●●●●
C011 SITE 11	B	●●●●●
C012 SITE 12	B	●●●●●
C013 SITE 13	B	●●●●●
C014 SITE 14	C	●●●●●
C015 SITE 15	B	●●●●●
C016 SITE 16	B	●●●●●
C017 SITE 17	B	●●●●●
C018 SITE 18	B	N/A

All contracts are currently on track to achieve their respective targets. However, Woolwich and Bond Street are yet to submit their designs stage assessment.

C000 series contracts have not been included in the table as BREEAM/CEEQUAL as not applicable. Revised target of Excellent has been identified for LIS and TCR subject to satisfactory resolution on energy performance (ENE 1) with BRE.

Emissions Control

83%

Commentary: NRMM actual rolling performance (% of qualifying construction equipment that has emission control fitted i.e. either tier IIIB or fitted with DPF) increased to 83% for Q3.

Biodiversity

Site	Design in place incl. biodiversity	Contractor identified and agreed	Restoration plan agreed with RFL/IM	Restoration Delivered
SITE 1	●	●	●	●
SITE 2	●	●	●	●
SITE 3	●	●	●	●
SITE 4	●	●	●	●
SITE 5	●	●	●	●
SITE 6	●	●	●	●
SITE 7	●	●	●	●
SITE 8	●	●	●	●
SITE 9	●	●	●	●
SITE 10	●	●	●	●
SITE 11	●	●	●	●
SITE 12	●	●	●	●
SITE 13	●	●	●	●
SITE 14	●	●	●	●
SITE 15	●	●	●	●
SITE 16	●	●	●	●

Biodiversity Accounting has been calculated for the Crossrail Central section using the DEFRA methodology. These sites have been identified as requiring restoration and have potential for biodiversity enhancement. Opportunities exist within them to increase the biodiversity value and recommendations have been produced which will be discussed with each contractor to progress. Over the next Quarter we will be working with contractors to understand their restoration programmes so that progress with biodiversity can be monitored. The first Biodiversity Working Group meeting consisting of Environment, Planning, Land and Property, Delivery and Operations teams meet in P11 to discuss the potential sites. An update to the accounting report is planned for Q4 to include updates to calculations for newly identified sites with potential for biodiversity. Site 10 is marked as 'N/A' in terms of agreeing a restoration plan as it is outside of the Crossrail operational area.

Recycled Content

25.32%

Contract	Projected %RC	Performance
AREA 1		
C001	6	●
C002	18	●
C003	35	●
C004	43	●
C005	61	●
AREA 2		
C006	55	●
C007	45	●
C009	23	●
C010	45	●
C011	23	●
C012	<1	●
C013	3	●
C014	11	●
C015	18	●
C016	4	●
C017	41	●
C018	4	●
AREA 3		
C019	41	●

The performance scores have remained the same as at the end of Q3 but the colour coding of the RAG score has been updated.

NWT: NetWaste Tool