Purpose of document

This document is designed to demonstrate the secondary containment and bunding of all waste storage areas on site at BKP Waste & Recycling Ltd, SO51 0PG EPR/FP3599LH. It is written to complement the application for a permit variation to allow BKP to discharge non-process area & non-storage area uncontaminated rainwater via an existing soakaway in the unmade ground to the north of the Lower yard. It should illustrate the infrastructure in place and the bunding and containment to ensure contamination does not reach the large areas of the lower yard where no waste storage or waste treatment operations take place.

All surface water will be polished via filtration and activated carbon filters prior to testing and discharge to ground via this emission point to ensure that it meets emissions limits.

Currently the site tankers all water streams offsite including uncontaminated surface water.

Any effluents from waste treatment activities or that pose a risk of contamination will still be tankered offsite to suitable disposal facilities as they are currently.

Uncontaminated rainwater from the lower yard only will be discharged to ground via this method as it poses no risk to environment.

As all waste is stored in designated bunded areas and process areas are undercover or have secondary containment this rainwater is deemed to be very low risk of contamination, however the operator will sure ensure all discharges are monitored and tested to ensure they pose no risk to the environment. Detail of this is included within the associated documentation.

Site Infrastructure

Lower Yard - C (above drainage channel) / D (below main drainage channel)

The lower yard at BKP Waste & Recycling ltd is impermeable concrete throughout with the exclusion of the unmade ground opposite the entrance where the soakaway for clean roof water from the new transfer station is located.

The site main drainage falls into the lower corner adjacent to the HWRC away from the site entrance. In the lower yard there is a 3-stage interceptor which the drainage channels across the centre of the yard fall into.

Every waste storage area has it's own bunding as detailed within this document with a local drainage sump. This includes the waste reception area where packaged wastes are sampled by site chemists.

The site has a main tank farm complete with 6 bulk storage tanks in the centre of the lower yard. This was installed in 2023 as part of major upgrades and investments in infrastructure across the facility as part of the previous substantial permit variation. This is designed in accordance with CIRIA 736 and all connecting points are within the tank farm bund. All tanks are fitted with actuated valves, level gauges and fixed pipework and a local PLC control system.

Waste will be offloaded directly from vehicles into the reception area for sampling by site chemists prior to transfer to a storage bay pending offsite disposal or recovery.

The whole of the lower yard has a tertiary containment bund wall along the perimeter adjacent if any of the secondary containment bunds are breached.

All containment structures are designed in accordance with CIRIA 736 and containment volumes exceed EA FPP guidance and allow for climate change + 40% events for containment of any rainwater from storm events with 824m3 containment in the lower yard before the tertiary containment wall is breached in flood events.

Unfortunately during flood events local WWT works are unable to accept our surface water due to permit constraints when they are ''in storm conditions''. This can occur for a number of days in a row which can have an impact on site operations due to volume of clean rain water contained within this tertiary containment system.

The site also has above ground storage in tanks detailed on the site plan and could, in a flood event utilise mobile storage tanks for additional storage (rain for rent, Treloar tanks for e.g.). However, the uncontaminated rainwater from non-process, non-storage areas could be safely and compliantly discharged via soakaway onsite reducing the environmental impact of the facility and retaining all of the tertiary containment capacity if it was needed.

Figure 1 – Lower Yard layout drawing showing impermeable surfaces and rainfall flow

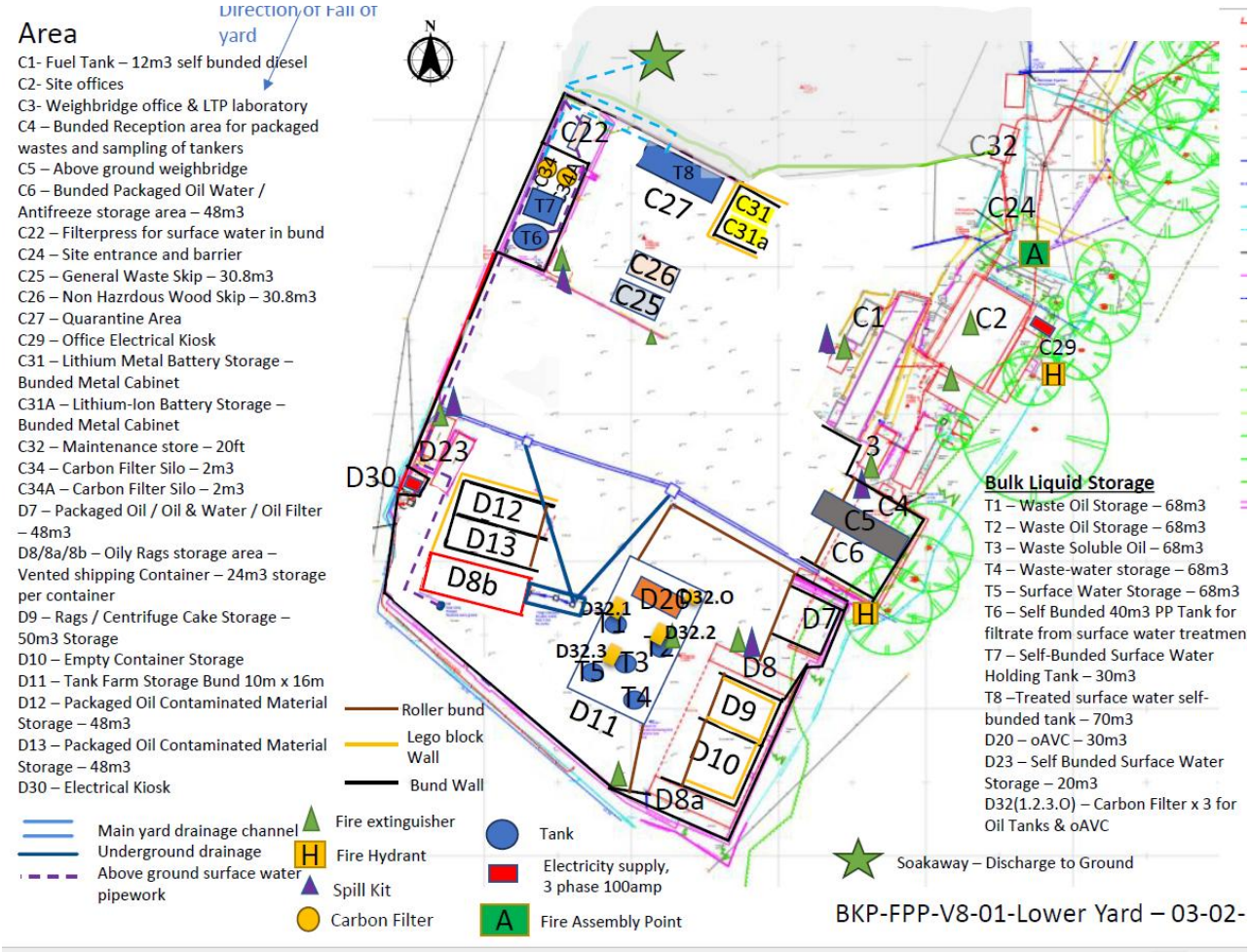

Figure 2 – Layout drawing showing storage locations in lower yard

Bay C4 – Reception Bay – Adjacent to weighbridge

Image 1 – Bay C4

Roller Bund

Local Sealed Drainage Sump

200mm high x 250mm wide Cast-in-Situ Concrete bund wall/Steel bay. Partially covered

Impermeable Concrete Surface

Epoxy Resin Lined Collection Sump

Bay C6 – Adjacent to weighbridge – Storage Bay

Image 2 – Bay C6

Roller Bund

Local Sealed Drainage Sump

200mm high x 250mm wide Cast-in-Situ Concrete bund wall/Steel bay. Partially covered

Impermeable Concrete Surface

Epoxy Resin Lined Collection Sump

Bay D7 – Storage Bay

Image 3 – Bay D7

Roller Bund

Local Sealed Drainage Sump

200mm high x 250mm wide Cast-in-Situ Concrete bund wall. Partially covered. Will be fully covered in future site improvement works

Impermeable Concrete Surface

Epoxy Resin Lined Collection Sump

D8 / D8a / D8b – Storage Containers – 40ft Ventilated Metal shipping containers for storage of oil contaminated absorbents only after acceptance checks completed

Undercover

Impermeable floor

Oil contaminated absorbents storage only in containers

Access ramps in and out of container

Bay D10 – Storage Bay / Repacking

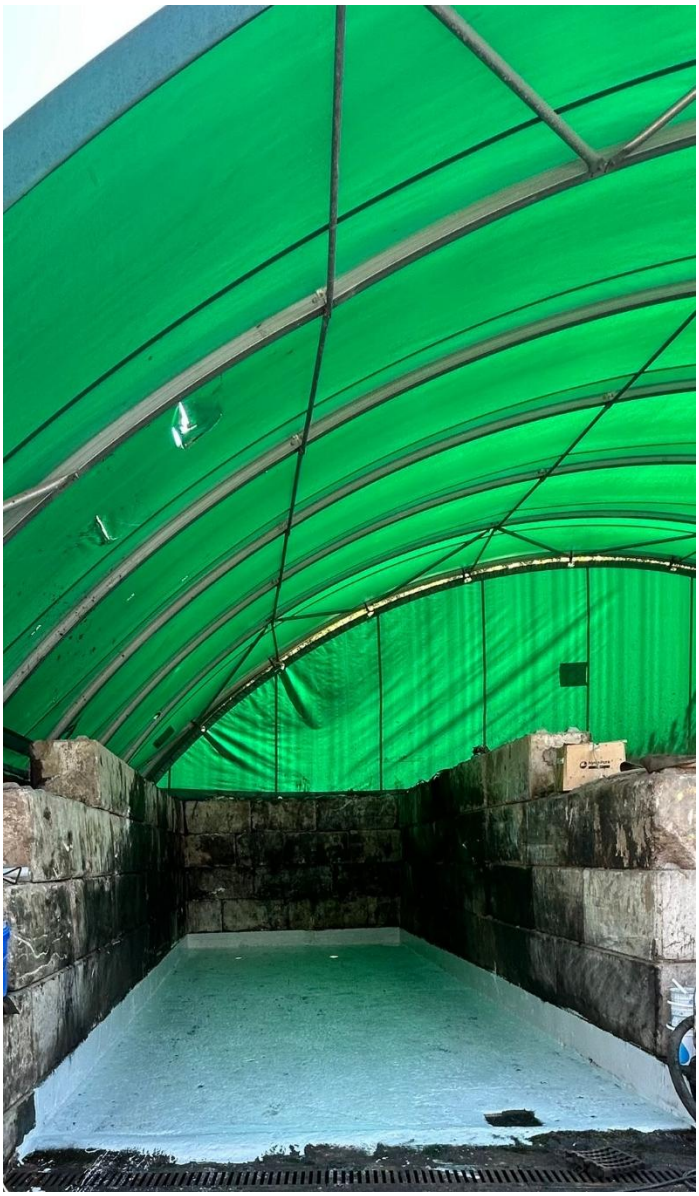

Image 4 – Bay D10

Roller Bund

Sealed Drainage Sump

Epoxy Resin Lined Concrete Floor

Epoxy Resin Lined Collection Sump

300mm x 600mm (w) Cast-In Situ Bay with 600 x 600mm Interlocked Lego block Walls on top as fire walls

Fully Under Cover

Drainage channel with local collection sump (GRP Lined) in-front of bay

Bay D12 / D13 – Packaged Waste Storage

Image 5 – Bay D12 – Right of Image, D13 Left of Image, Image 6 – Bay D13 foreground, D12 background

Bay D12 / D13

Roller Bund

Drainage Channel with collection sump at back of each bay – Epoxy Resin Sealed

New Concrete Bays designed in accordance with CIRIA 736

Designed for Tanker Washing and high solids tipping from tankers / receipt of road sweeper waste – Now used for packaged waste storage as site has moved away from road sweeper / tanker waste. Constructed on top of existing slab in 2023

Fully under cover

Main Tank Farm – Middle of LTP Lower Yard (Containing D20 & T1-T5) – Bulk Liquid Storage

Image 7 – Tank Farm Bund prior to tank Installation

Image 8 – View towards offices from behind tank farm bund showing construction

Piled structure on top of existing concrete slab (Piles driven through existing slab and then cast in-situ bund structure built on top of this)

Designed in accordance with CIRA 736

No drainage points – Only local collection sump for removing rainwater

Fixed Pipework within bund, level alarms, actuated valves, level probes to actuate high level. Local PLC panel, all tanker coupling points within bund

Supervised offloading/loading of all vehicles

Tertiary Containment – Lower Yard

There is a 750mm high cast in-situ bund wall for tertiary containment of the whole of the lower yard. This is designed and installed in accordance with CIRIA 736 as part of improvement works on the site in 2023. It spans the whole of the perimeter of the lower yard and was installed to insure the site it climate change ready and has very large quantities of tertiary containment if required.

Not Pictured – Improvements being completed

New bunding surrounding the tank farm and local collection to contain the area shown in light blue is being installed in Q2 2026 in conjunction with this permit variation to further improve segregation. This will ensure any loading offloading of tankers is within a separate bunded area. The effluent from this light blue area will be treated as contaminated and tankered offsite with

all other waters from process or storage areas. A roller bund is being installed infront of bay D10 as part of these works as well as replacing some of the concrete in that area that is in need of replacement.

Image 9 – View from D30 up the site

Image 10 – Tertiary Containment Wall during construction – LTP lower yard – View Towards D8a / Bunny Lane from D8b (Lowest point)

Plastics Recycling Area – B

The site has recently invested in packaging washing and recycling equipment as part a major permit variation in 2023. Part of the upgrades completed at the facility was construction of a new bespoke bunded area to house the equipment and building that this is contained within. A new retaining wall was installed as well as cast in situ bund walls and sealed drainage system designed in accordance with CIRIA 736. The drainage system has also been GRP lined.

There are concrete roller bunds at each end and a central drainage channel that flows into 2 x sealed sumps at either end. Water from the sumps is pumped out by BKP staff when required.

As waste material is stored within this bunded area adjacent to the processing building (with fire break). Subsequently all effluent produced within this bunded area will be treated and send off site to a suitably permitted treatment facility as there is a risk of contamination. All containment systems are designed for Climate change adaption with large excess of EA current guidance including firewater.

The site is fully enclosed by a 1.8m palisade fence with lockable gates.

Photos shortly after construction and after installation of fencing are included Images 11,12,13,14.

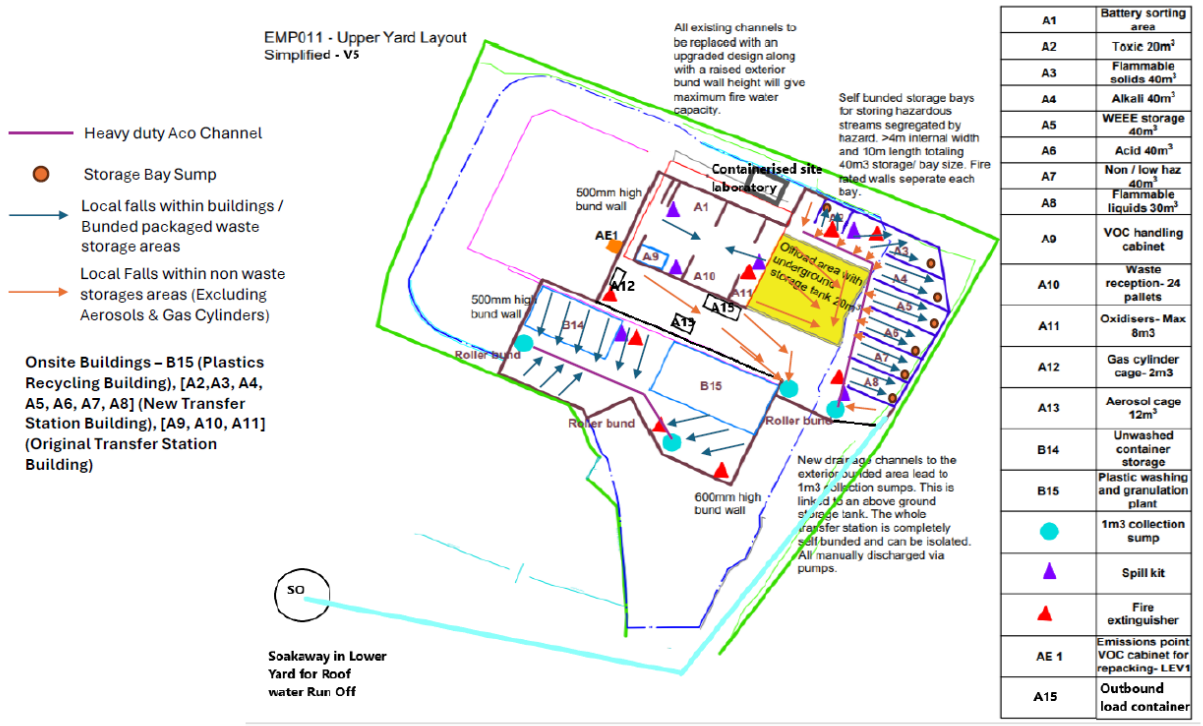

Figure 2 – Plastics Recycling area (B) and Hazardous waste Transfer station (A) layout drawing

Image 11 - View from inside plastics recycling area bund towards site entrance

Image 12 - View from far side of roller bund in B towards bunny lane

Image 13 - View from entry to plastics recycling area roller bund towards bunny lane

Image 14 - Aerial photo looking towards transfer station June 2025 during operations – Green building in foreground is plastics recycling building. Oliver Green building in top right of picture is new transfer station, Old asbestos cement sheet roof building in centre is original transfer station building

Transfer Station – Area A

The site as part of recent improvements in 2023/2024 and permit variation the site has a new transfer station with separate bunding. All waste storage areas are covered and any waste repacking or blending operations take place within a building or within dedicated LEV cabinet (A9) inside existing transfer station.

The offloading area between the buildings and the new waste storage buildings are covered by thermal imaging cameras.

Each storage bay has it's own individual bunding and local collection sump and the whole of the transfer station has a tertiary containment wall if any storage bay bund was breached.

New transfer station building is used for waste storage only. Within the existing transfer station building are waste reception and sampling areas and a LEV cabinet for repacking or mixing high VOC wastes that is abated through a two-stage carbon filter process and ducted above the building.

There is a ventilated shipping container adjacent to the existing transfer station building that is used for storing pending outbound loads from the site prior to loading onto vehicles.

Image 15 – Thermal imaging camera view of half of new transfer station and offload area

Image 16 – Views of new transfer station showing bays & Fire curtains above fire walls for combustible storage bays

Image 17 – Bunded LEV Cabinet (A9) for Repacking & Mixing/blending & Flammable IBC decontamination

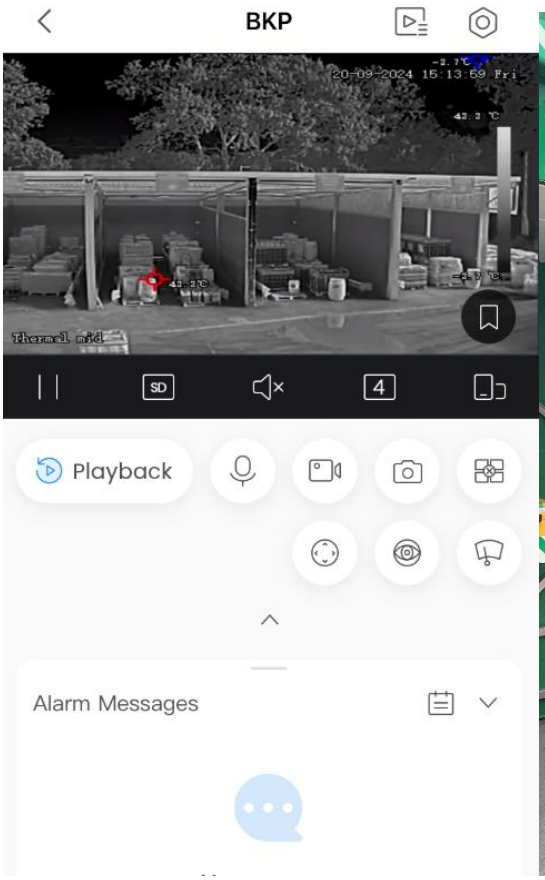

Image 18 – Thermal imaging remainder of bays

Image 19 – Tertiary containment wall adjacent to bay A2 & steps to onsite laboratory in background

Image 20 – Tertiary containment wall and roller bund

Image 21 – Outbound Load container – A15