



DS Smith plc

K4 DCO Project

Inception Meeting - June 2017

Contents

- Page 2 - Introduction
- Page 3 - Aerial Overview
- Page 4 - Aerial Site View
- Page 5 - Proposed Layout Plan (indicative)
- Page 6 - Proposed Design (Indicative)
- Page 7 - Surrounding Designations
- Page 8 - Other Projects

Project Team

- **DS Smith Paper plc** - promoter, environmental permitting
- **DHA Planning** - project co-ordination, planning agent, consultation lead
- **DHA Environment** - EIA co-ordination
- **RPS** - technical consultant
 - Air Quality
 - Archaeology/cultural heritage
 - Ecology
 - Flood Risk/drainage/water quality/water resources
 - Ground conditions/contamination
 - Landscape and Visual
 - Noise/ vibration
 - Transport and highways
- **Plant operator** - to be appointed.
- **Legal input** - to be appointed.

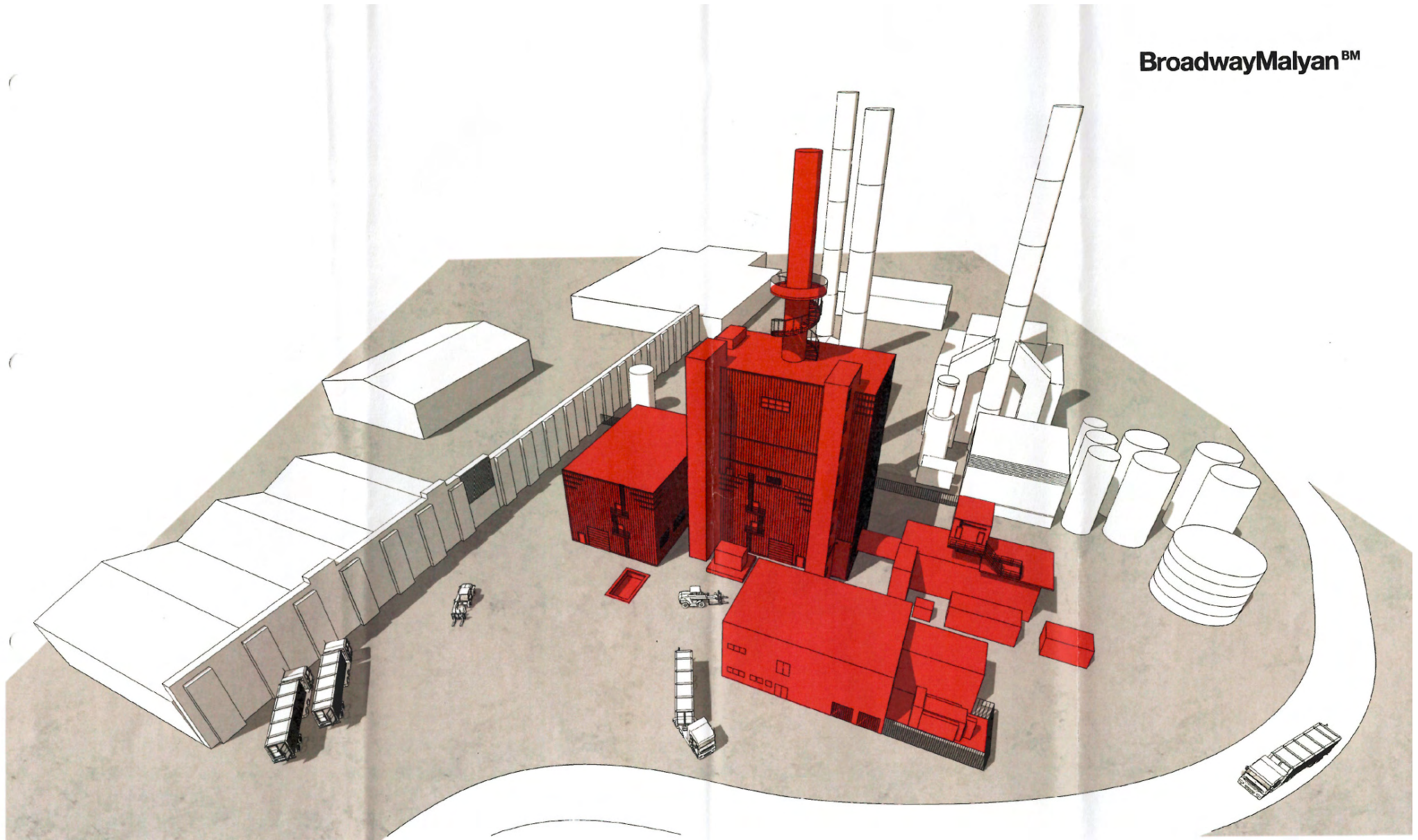
Project Overview

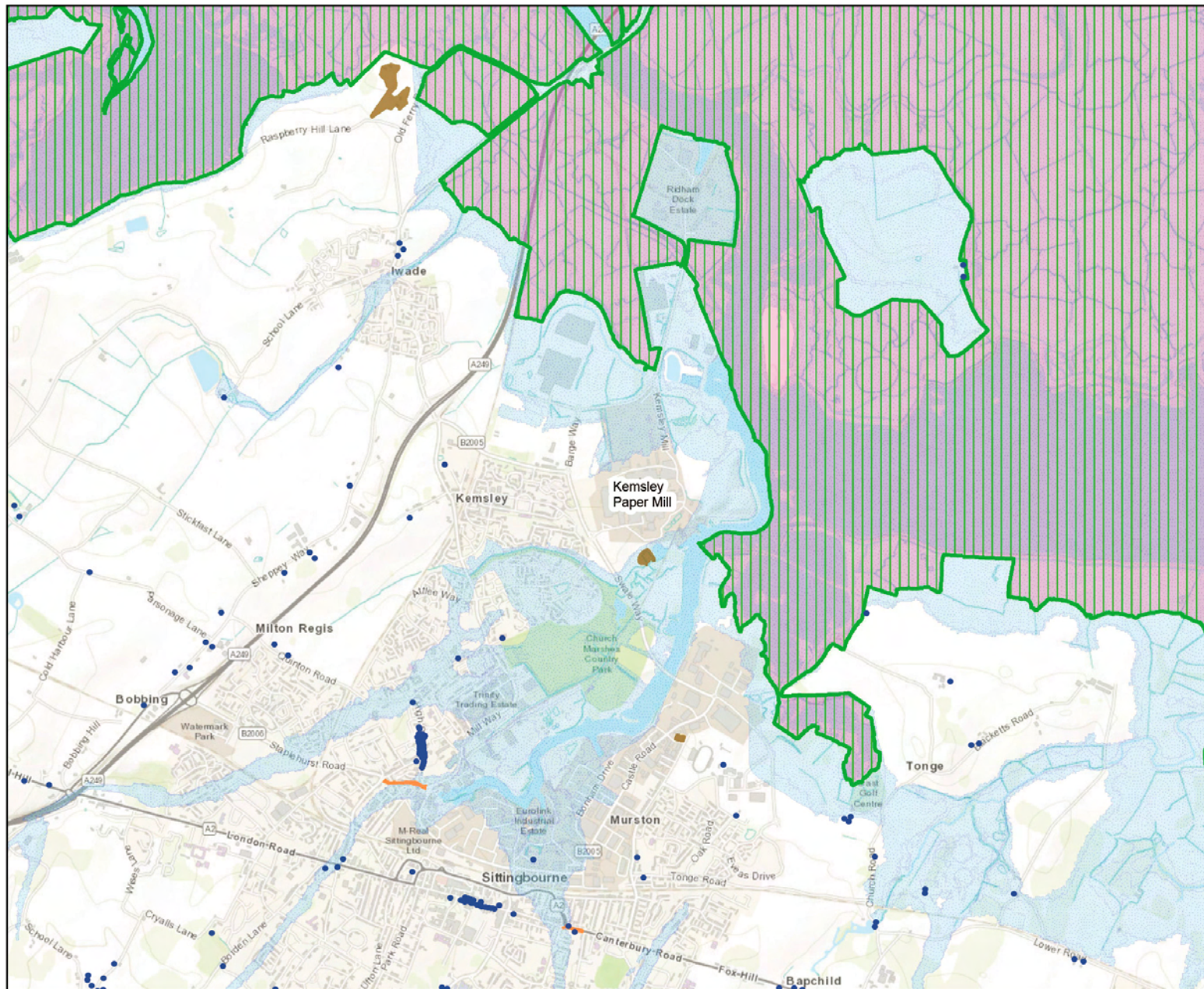
- Kemsley Mill has an annual production capacity of around 800,000 tonnes of packaging made from 100% recycled waste paper and is the second biggest recovered fibre-based paper operation in Europe.
- The mill has a requirement for around 153 MWth (195 t/h) of steam and 50 MW of power when operating at full production. The energy requirements can fluctuate quickly should any of the paper machines change process parameters.
- Current energy requirements are met from several sources:
 - K1, a gas turbine CHP plant;
 - K2, a waste plastics and sludge fired steam generator;
 - K3 (from 2019) a third party energy from waste plant will supply up to 70 t/h of steam;
 - six back-up package boilers (providing low pressure steam at circa 30t/hour per boiler).
- K1 is key to the paper mill's energy strategy and comprises a 42 MWe GE Frame 6B Gas Turbine which exhausts into two supplementary fired Waste Heat Recovery Boilers. Each boiler is capable of generating up to 150 MW (th) of steam at 525 °C and 125 bara. This steam is passed through a 38 MWe back pressure turbine manufactured by Mitsubishi. K1 now requires significant investment in order for the gas turbine (GT), waste heat recovery boilers (WHRBs) and steam turbine (ST) to remain operational.
- **K4** - DS Smith therefore intends to replace the existing plant with a new plant, which will fully integrate with the remaining supply equipment and be constructed on available land adjacent to the existing K1 plant. The new plant will be expected to provide a further 20 years of reliable and efficient operation and sized to meet the projected site energy demands whilst maximising the opportunities within the Energy market.
- The proposed design for the new K4 plant includes the following:
 - Gas turbine technology of around 52 MW nominal power output
 - Waste Heat Recovery Boilers (capable of supplementary firing) sized to provide an output of approximately 105 MWth steam.
 - Steam Turbine technology of around 16 MW nominal power output.











- Listed Buildings
- Scheduled Monument
- Air Quality Management Area
- Special Protection Areas and Ramsar Sites
- Site of Special Scientific Interest (SSSI)
- Flood Zone 2 and 3



1 1/4 0 1 2 3

Sources: Esri, HERE, DeLorme, Intermap, increment P Corp., GEBCO, USGS, FAO, NPS, NRCAN, Goodtime, IGN, Kadaster NL, Ordnance Survey, Esri Japan, METI, Esri China (Hong Kong), Swisstopo, Mapbox India, © OpenStreetMap contributors, and the GIS User Community. Contains public sector information licensed under the Open Government Licence v3.0.

