



**DSL2 - Non-Technical Summary - DSL 8 – Environmental Risk Assessment – Road Sweeping De-Watering Transfer Station at Damian Sweeps Ltd, Clock Lane, Bickenhill, Solihull, Warwickshire, B92 0DX**

**1.0 Introduction**

Damian Sweeps Ltd are a provider of operated road sweepers. As a by-product of the road sweeping process waste is collected from the surfaces being swept. This waste can either be tipped back onto the site it has been swept, where it will not impact negatively on the environment. However, on a number of occasions the waste cannot be tipped on the site being swept and as a result must be tipped at a permitted waste facility with an Environmental Permit allowing the European Waste Catalogue code (EWC) 20 03 03 for road sweepings. The permit must also allow wastes that are in the form of a liquid or a sludge.

Environmental Permits that can accept (EWC) 20 03 03 for road sweepings in the form of a liquid or a sludge are limited and as a result travel times and distances to transfer the waste can be very significant. As a result, Damian Sweeps Ltd is proposing to construct its own transfer facility to accept road sweepings that are in the form of a liquid or sludge. This will greatly reduce the distances travelled by the company's vehicles, saving time and fuel, ultimately reducing emissions. The transfer facility will be at Clock Lane, Bickenhill, Solihull, Warwickshire, B92 0DX.

**2.0 Sweeping process**

The process of mechanical road sweeping involves a vehicle equipped with brushes, high pressure water jets and a vacuum system. Water is sprayed onto the surface being cleaned, loosening and saturating debris. Brushes further loosen the debris from the surface and a powerful vacuum system sucks up the resulting solids and liquids and deposits them in the hopper mounted on top of the sweeper. The resulting waste is mixture of solids and liquids and depending upon the amount of water being used and environmental conditions the amount of water in the hopper can vary and as a result the waste in the hopper can be a liquid or a sludge.

**3.0 Sites and industries serviced**

Damian Sweeps service a variety of industries, however the industries that provide high levels of waste that requires removing from sites are construction, ground works, muck shifting and house building. These sites require the waste to be removed to keep the sites clean, prevent run-off into water courses and keep roads free from mud. As a result, the waste that is collected is a reflection of the debris on the surface swept, which the majority is soil, aggregates, sand. In addition, the water on the surface or used by the sweeper is also collected.



#### **4.0 Hazardous waste**

Damian Sweeps does not collect any hazardous waste such as oils and fuels from road traffic accidents or environmental spills. As a result, there will be no hazardous waste accepted at the proposed de-watering transfer station.

#### **5.0 Bickenhill Depot**

The Bickenhill operation will be home to fleet of over 15 vehicles and a workshop. It is located on Clock Lane, Bickenhill, very close to the M42 Motorway and Birmingham International Airport.

#### **6.0 De-Watering Process**

The proposed process of dewatering road sweeper waste is a proven method, which is already in use on a number of large construction sites in England. The De-Watering Tank System uses proven technology to removed suspended solids from the waste generated in the sweeping process.

The included document – **DSL 5 Road Sweeper De-watering process flow chart at** – shows the steps taken in the process of receiving the sweeper waste and how the waste is dewatered and the resulting liquid has suspended solids removed from it.

When a sweeper returns to the depot containing waste it tips into a sealed concrete tank. The waste is allowed to settle with the heavier grit, stones and sand settling to the bottom. The liquid containing suspended solids which sits above the heavier waste. The liquid is then filtered from the tank through drainage crates, which are covered in terrain, to retain the silt.

A pump is used every two to three days.

This is now recycled water that can be used within the Road Sweepers.

Any additional water that cannot be used will then be released to the foul sewer. The depot will benefit from a trade discharge consent from the local sewage provide which will accept run-off from the pad where the de-watering system will sit and the discharge itself.

Once the tank is full of sediment it will be removed from site to a permitted waste facility to be recovered or disposed of.

#### **7.0 Wastes received and stored**

The only waste to be received under the permit will be Road Sweeping Residues, European Waste Catalogue (EWC) Code 20 03 03 and be of non-hazardous properties.

- The maximum quantity of waste to be received within 1 week in 350 tonnes
- The maximum quantity of waste to be received within 1 year is 18,250 tonnes
- The maximum quantity of waste to be stored on the site at any time is 250 tonnes



### **8.0 Drainage**

The whole operation including the transfer, storage and treatment of waste takes place on a sealed surface. The area is concreted with a curbed edge preventing any liquid being able to seep to ground. The area drains to foul sewer preventing any run off to surface water.

### **9.0 Emissions and Fire**

The Only point source discharge for the operation is the treated effluent to the foul sewer. Due to the wetness of the waste and the process dust will not be produced. The waste is lacking in organic matter due to its origin and as a result is not odorous. In addition, there is no crushing, screening, tromelling or compaction of the waste as a result no additional noise will be created. Vehicles are moving in and out of the depot during hours of operation.

The waste stream is not flammable and as a result a Fire Prevention Plan is not required.