



HOWARD

RECYCLING SERVICES P/L



MINE VOID FILLING
ENVIRO AGGREGATE PRODUCTS
VENM/ENM
CENOSPHERES

ABOUT US

Howard Recycling Services is an Australian owned and operated company situated on the Central Coast of New South Wales.

With a network of immediate staff with 35 years of experience within the construction and civil industry we have a sound understanding of the statutory regulations and requirements for all concepts of civil work.

Howard Recycling Services continues to assess alternative methods of utilising raw materials in construction products and manufacturing applications and processes. These by-products are from the coal fired furnaces at Vales Point Power Station.

Howard Recycling Services currently engages in research and testing of the utilisation of these products to assist with the reduction of their effects on the current environment and to aid preservation of the environment for the future.

By undertaking these processes Howard Recycling Services believe we are prolonging the existence of the local Power Station which in turn will continue to offer employment to personnel, contractors and utilise the services of local businesses from the Central Coast and Hunter Regions.

With the company's dedication, commitment and specialised expertise, Howard Recycling Services will maintain client service and satisfaction. Howard Recycling Services conform to all legislative requirements for all works of which they undertake.

Here at Howard Recycling Services we pride ourselves with our compliance towards current safety legislation and safe work practices.



**HOWARD RECYCLING SERVICES
CONTINUES TO ASSESS ALTERNATIVE
METHODS OF UTILISING RAW
MATERIALS IN CONSTRUCTION
PRODUCTS AND MANUFACTURING
APPLICATIONS AND PROCESSES.**





MINE FILL

Howard Recycling Services has designed and manufactures a void fill mix which utilises the by-products from burning of coal to permanently fill voids. Howard Recycling Services has experience with our specifically designed pumps and the corresponding techniques to stop mine subsidence. The company combines expertise and initiative to complete each job efficiently and safely.

Howard Recycling Services void mix can be applied to all types of voids and the strength of the mix can be varied for the requirements of each customer.

The void fill mix involves the injection of fluid slurry under pressure at strategic locations into voids to stabilise the area for possible future use.



Mine Subsidence Board

Mine Subsidence Board –
Prequalified Contractor for
Construction Works

Benefits

- Multiple Mobile units which can be utilised in a variety of areas and terrains
- Geotechnical Support
- Camera Footage
- Experienced operators
- Experience in execution of void stabilisation
- Sinkhole remediation
- Quality control
- Quality assurance
- Safety management
- Risk reduction
- Compaction
- Remedial work





ENVIRO AGGREGATE PRODUCTS

Here at Howard Recycling Services we have an extensive ash program in which we specialise in the handling, processing and sale of bottom ash, also known as Enviro Aggregate.

Bottom ash is an excellent cost effective alternative to sand with a variety of uses.

Bottom ash, a secondary raw material, is a sustainable and environmentally friendly alternative to natural resources such as sand and gravel.

Benefits

- Drainage
- Masonry work
- Cost- effective fill material
- Road construction
- Foundation material
- Noise barriers
- Aggregate in asphalt and concrete
- Capping landfills
- Landscaping





VENM/ ENM

Virgin Excavated Natural Material (VENM) is defined as natural material (such as clay, gravel, sand, soil and rock fines in the Protection of the Environment Operations Act 1997 (POEO Act) and the Protection of the Environment Operations (Waste) Regulation 2014.) This material has been excavated or quarried from areas that are not contaminated with manufactured chemicals or process residues, as a result of industrial, commercial, mining or agriculture activities; and does not contain any sulfidic ores or soils or any other waste. Material can only be classified as VENM if it has been excavated from an area that is not contaminated with other waste materials or by manufactured chemicals.

Where excavated material cannot be classified as VENM, it may be eligible for reuse as Excavated Natural Material (ENM). The ENM exemption allows for the reuse of such disturbed or mildly contaminated materials. Before such materials can be reused the soil must undergo an extensive visual, chemical and physical assessment in accordance with this exemption.

Howard Recycling Services is unable to accept material onsite without a Geotechnical Soil Report classifying the status of the material as either VENM or ENM.

Steps for Receiving VENM/ ENM

- Determine classification via Geotechnical Report (VENM or ENM)
- Forward Geotechnical Report to Howard Recycling Services
- Advise Howard Recycling Services of job Purchase Order
- Commence carting of VENM/ ENM to site





CENOSPHERES

Howard Recycling Services harvest cenospheres, a by-product of coal burning from Power Stations, onsite. The burning of coal produces by-products, and cenospheres are hollow ceramic microspheres. Cenospheres are harvested by Howard Recycling Services from the settling ponds of the ash dam. The cenospheres are then dried, processed to individual specifications, graded and packaged to meet our customers' requirements.

The consistency of the properties of the coal used at Vales Point Power Station, ensures that the cenosphere properties also remain consistent. This enables our company to supply a dependable product to our customers.

Benefits

- Strength- bonding, internal structure, asphalt, concrete, paints and ceramics
- Thermal reflectivity- heat dissipation
- Sphericity- ball bearing effect for moulding, trowel work and lubricity
- Reduced weight- light- weight, filler loading, reduced shrinkage and lower viscosity
- Refractory- foundries and high temperature coatings and flame-retardants
- Sound attenuation- noise and radio frequency absorption and reflection





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