

## STEVENSON AGGREGATES LTD

### DRURY MANAGED FILL & TUAKAU SAND CLEANFILL OPERATIONS

### CONDITIONS OF ENTRY

Access to the Fill sites is at the sole discretion of Stevenson. If for any reason we deem the site access unsuitable, then it will be closed, and no compensation will be offered. The Customer/ Account Holder accepts that upon entry to the site, you agree to be bound by the terms outlined below:

Fill Material will not be accepted onto the site until the Application/Declaration Form has been completed and provided to Stevenson for approval. We recommend you allow 5 working days for this process. This must be updated and Stevenson advised immediately if any information changes.

Information and forms are available on: ([www.stevensonresources.co.nz](http://www.stevensonresources.co.nz)) or alternatively contact [leigh.turner@stevenson.co.nz](mailto:leigh.turner@stevenson.co.nz) or [jayden.ellis@stevenson.co.nz](mailto:jayden.ellis@stevenson.co.nz)

#### 1.0 APPROVAL:

**The acceptance of any Fill Material is at the absolute discretion of Stevenson Aggregates Ltd.**

The acceptance criteria for both the Drury Managed Fill and Tuakau Cleanfill sites are detailed in this document. These tables indicate the chemical parameters and the type of material that can be accepted at the sites and should be considered a guide only. We recommend you contact us to discuss your specific requirements.

#### 2.0 MATERIAL CATEGORIES

Once Application/Declaration Forms have been approved, the material will be assigned 1 of 2 categories based on the volume of material, test history and origin:

- Pre-approved Fill
- Non-pre-approved Fill

In some cases Stevenson may accept fill under the following additional sub categories:

- Pre-approved Fill from a Transfer Facility
- Non-pre-approved Fill from a Transfer Facility

See page 2 for further information and descriptions.

#### 3.0 MATERIAL CHARGE BY TYPE

At the Tip Head or Weighbridge each of the material categories, Non-Pre-approved Fill, Pre -approved Fill will be further classified and assigned "Material Type" designations to differentiate applicable charges.

##### Material Classification

- TYPE 1:** Clay / Aggregate / Dry & Sorted Material
- TYPE 2:** Mixed Material - Clay / Aggregate / Unsorted
- TYPE 3:** Unsuitable Material – Damp\* Will be accepted at Stevenson's discretion.
- TYPE 4:** Concrete / Millings / Masonry - Clean Sorted Material (400mm under)
- TYPE 5:** Concrete (Reinforced) / Millings / Masonry – Reinforcing protrusions must be less than 0.5m in length
- TYPE 6:** Top Soil

*\*Wet un-compactable soils will not be accepted at Drury.*

### Drury Pre-Approved Fill:

- Completed Approval/Declaration Form required for Each Site / Source.
- Completed Site Investigation with Test Reports.
  - Detailed Site investigation (DSI) carried out in accordance with the Contaminated Land Management Guidelines Number 5 – Site Investigation and Analysis of soils MfE 2011 by a suitably qualified and experienced contaminated land professional
  - Compliant analytical test reports from an IANZ accredited Laboratory.
  - Imported Managed Fill must also comply with section 4 of this document.
- Classification and Type will be assigned by Stevenson.
- Fill material may be subject to XRF screening at Stevenson’s discretion.
- **Drury Pre-Approval is compulsory for fill originating from any of the following:**
  - A consented contaminated or suspected contaminated site.
  - The area covered by Auckland Councils District Plan – Central Area Section (which includes the CBD)
  - Any known Horticultural site.
  - Any site listed on the Hazardous Activities and Industries List. (HAIL) (See attached)

### Drury Non-Pre-Approved Fill

- Completed Approval/Declaration Form required for Each Site/Source.
- Classification and Type will be assigned by Stevenson.
- As a condition of Stevenson approval process, non-pre-approved fill material will be subject to XRF screening at the Tip Head and analytical laboratory testing.
- XRF and /or Analytical test loads will be quarantined while samples are taken and testing undertaken.
- Imported Fill must also comply with section 4 of this document.
- Imported fill material **MUST NOT originate** from Horticultural sites, from any site located within the area covered by Auckland Council – Central Area Section, a restricted place as defined by Environment Waikato / Waikato Regional Council or any sites where there is evidence to suggest that an activity outlined on the Hazardous Activities and Industries List (HAIL) has taken place. (see attached)

### Tuakau Pre-Approved Fill

- Completed Approval/Declaration Form required for Each Site/Source.
- Classification and Type will be assigned by Stevenson.
- As a condition of Stevenson process, cleanfill material will be subjected to onsite screening using XRF and periodic laboratory analytical testing.
- Imported fill material **MUST NOT originate** from Horticultural sites, from any site located within the area covered by Auckland Council – Central Area Section, a restricted place as defined by Environment Waikato / Waikato Regional Council or any sites where there is evidence to suggest that an activity outlined on the Hazardous Activities and Industries List (HAIL) has taken place. (See attached).
- Imported Fill must also comply with section 4 of this document.

### Drury/ Tuakau - Pre-Approved Fill from a Transfer Facility

- Completed Approval/Declaration Form required.
- Classification and Type will be assigned by Stevenson. As a condition of Stevenson approval process, Pre-approved fill material from Transfer Facilities must be stockpiled in individual lots at the Transfer Facility, with lots individually numbered and traceable to source/projects or origin. The Transfer Facility will be required to keep registers logging material source, customer and IANZ accredited laboratory test reports for materials in each lot. Lots shall be tested for contaminants as detailed in section 4 of this document at a rate no less than 1 every 500m<sup>3</sup> loose and supplied to Stevenson. For avoidance of doubt, the loose unit weight conversion of 1.6t/m<sup>3</sup> should be used in calculating testing frequency.
- Imported fill material **MUST NOT originate** from Horticultural sites, from any site located within the area covered by Auckland Council District Council – Central Area Section, a restricted place as defined by Environment Waikato / Waikato Regional Council or any sites where there is evidence to suggest that an activity outlined on the Hazardous Activities and Industries List (HAIL) has taken place. (see attached)
- Imported Fill must also comply with section 4 of this document.

### Drury / Tuakau – Non – Pre Approved Fill from a Transfer Facility

- Completed Approval/Declaration Form required
- The Transfer Facility will be required to keep registers logging material source and supply these on a monthly basis.
- Classification and Type will be assigned by Stevenson.
- As a condition of Stevenson process, fill material will be subjected to onsite screening using XRF and periodic laboratory analytical testing. **Non – Pre Approved Transfer facilities will attract additional random testing at both the Tip Head and Transfer Facility.**
- Imported fill material **MUST NOT originate** from Horticultural sites, from any site located within the area covered by Auckland Council – Central Area Section, a restricted place as defined by Environment Waikato / Waikato Regional Council or any sites where there is evidence to suggest that an activity outlined on the Hazardous Activities and Industries List (HAIL) has taken place. (see attached).
- Imported Fill must also comply with section 4 of this document.

#### 4.0 FILL CRITERIA

Stevenson Fill sites can accept imported fill materials that comply with the following:

##### Cleanfill - Tuakau

Cleanfill should comply with the definition of 'cleanfill' in the MfE guideline

Material that when discharged to the environment will have no adverse effect on people or the environment. This includes natural materials such as clay, soil and rock, and other inert materials such as concrete and brick, or mixtures of any of the above.

Cleanfill **includes**:

- Solid material of an inert nature
- Asphalt
- Bricks & Masonry Blocks
- Ceramics
- Concrete (Unreinforced)
- Concrete (Reinforced) Including exposed reinforcing rods of less than 0.5 meter in length
- Fibre cement building products
- Glass
- Road Subbase
- Soils, rock, gravel, sand, clay, etc. (Acceptable if free of contamination. See criteria below)
- Pavers, Pipes, Tiles (clay, concrete or ceramic)
- May include incidental tree or vegetative matter less than 2 per cent by volume by load.
- Be below the maximum chemical concentrations for Tuakau Cleanfill as set out in the table below.

Cleanfill **excludes**:

- material that has combustible, putrescible or degradable component;
- materials likely to create leachate by means of biological or chemical breakdown;
- any products or materials derived from hazardous waste treatment, hazardous waste stabilisation or hazardous waste disposal practices;
- materials such as medical and veterinary waste, asbestos, or radioactive substances that may present a risk to human health;
- soils or other materials contaminated with hazardous substances or pathogens;
- hazardous substances.

##### Managed Fill - Drury

- Comply with the definition of '**Managed Fill**' as set out in the Proposed Auckland Unitary Plan:

**Managed Fill is defined as Cleanfill** type material but where the material may include soils which exceed permitted activity contaminant concentrations that will not result in any significant adverse effect on human health, surface water or groundwater quality, including potable water sources.

- Be compactable and workable allowing earthmoving plant to place and traffic at the tip head.
- Be below the maximum chemical concentrations for Drury Managed Fill as set out in the table below.

Waste Acceptance Criteria				
Parameter		Tuakau Cleanfill Limits	Drury Managed Fill Limits	Drury Leachability Limit
		(mg/kg)	(mg/kg)	(mg/L)
Metals	Arsenic (As)	20	70	-
	Boron (B)	15*****	260 (45)*	2
	Cadmium (Cd)	1	7.5	-
	Chromium (Cr)	95	400	-
	Copper (Cu)	120	325	-
	Lead (Pb)	90	250	-
	Mercury (Hg)	1	0.75	-
	Nickel (Ni)	60	320 (105)*	1
Zinc (Zn)	175	1160 (400)*	1	
BTEX Compounds	Benzene	1.1	0.004	-
	Toluene	68	0.75	-
	Ethylbenzene	53	0.85	-
	Total Xylene	48	0.45	-
PAH Compounds	Benzo[a]pyrene Equivalence	2.0	2.15	-
	Naphthalene	7.2	-	-
	Acenaphthylene	50	-	-
	Acenaphthene	90	-	-
	Fluorene	80	-	-
	Hexachlorobenzene	0.02	-	-
	Phenanthrene	90	-	-
	Anthracene	800	-	-
	Fluoranthene	320	-	-
	Pyrene	160	-	-
Sum of PAHs	80	-	-	
TPH	C <sub>7</sub> – C <sub>9</sub>	2700	-	-
	C <sub>10</sub> -C <sub>14</sub>	560	-	-
	C <sub>15</sub> -C <sub>36</sub>	4000	-	-
Other	Free Cyanide****	-	0.9**	-
	Total DDT (and Isomers)	0.7	8.4	-
	Aldrin	0.02	0.7	-
	Dieldrin	0.02	0.7	-
	Heptachlor	0.02	-	-
	Gamma BHC (Lindane)	0.02	-	-
Background Levels for Volcanic Soils TP153	Total Organic Carbon	-	14%***	-
	Barium (Ba)	-	350***	-
	Cobalt (Co)	-	170***	-
	Magnesium (Mg)	-	76,600***	-
	Manganese (Mn)	-	2,500***	-
	Nitrogen (total, N)	-	8,500***	-
	Phosphorus (P)	-	3,730***	-
	Potassium (K)	-	3,660***	-
	Sulphur (S)	-	2,300***	-
	Tin (Sn)	-	4***	-
Vanadium (V)	-	370***	-	

\* Concentrations of boron above 45mg/kg, nickel above 105mg/kg and zinc above 400mg/kg in fill materials will require Synthetic Precipitation Leaching Procedure (SPLP) testing to be carried out on the fill materials prior to acceptance, to demonstrate that elevated concentrations of these elements will not mobilise under conditions likely to be present in the fill area.

\*\* To be included in the analysis suite where potential for cyanide contamination is identified.

\*\*\* Values extracted from Auckland Regional Council TP153, Table 3 Background Ranges of Trace Elements in Auckland Soils (Volcanic Range).

\*\*\*\* Total Cyanide tested for in the first instance. If results are above Free Cyanide limit, then Free Cyanide testing will be carried out.

\*\*\*\*\* Hot Water Soluble Fraction

## 5.0 UNACCEPTABLE MATERIAL:

The following materials will NOT be accepted onto the sites

- Treated Timber, Vegetation, bark, wood chips and green waste.
- Asbestos.
- Hazardous Waste or Contaminated Material.
- Plastics, paper, cardboard, fabrics.
- Containers, sealed drums and gas cylinders.
- Industrial, construction or demolition wastes including asbestos sheet, carpet, cork, iron, fibreboards, formica, hardboard, plywood.
- Electrical components, cabling, insulation.
- Household, domestic waste, Medical or Veterinary waste.
- Organic material, powders (excluding Peat)
- Material originating from gas works.
- Materials with strong Chemical or Hydrocarbon smell or Unusual Colours.

### Non-complying material as determined by Stevenson:

At the sole discretion of Stevenson, the Account Holder will be advised, and the material will be removed from our site. All associated costs relating to the removal of the non-complying material to a consented facility will be on-charged to the Account Holder.

### Hazardous Activities and Industries List (HAIL) October 2011

This Hazardous Activities and Industries List defines industries and activities which typically use or store hazardous substances that could cause contamination if these substances escaped from safe storage were disposed of on the site or were lost to the environment through their use. The fact that an activity or industry appears on the list does not mean that hazardous substances were used or stored on all sites occupied by that activity or industry, nor that a site of this sort will have hazardous substances present in the land. The list merely indicates that such activities and industries are more likely to use or store hazardous substances and therefore there is a greater probability of site contamination occurring than other uses or activities. Conversely, an activity or industry that does not appear on the list does not guarantee such a site will not be contaminated. Each case must be considered on its merits, considering the information at hand.

In applying the list, it must be remembered that the activity may only have occupied a small part of the site, and therefore the possibility of contamination will also be for a small part of the site.

#### A. Chemical manufacture, application and bulk storage

1. **Agrichemicals** including commercial premises used by spray contractors for filling, storing or washing out tanks for agrichemical application
2. **Chemical manufacture**, formulation or bulk storage
3. **Commercial analytical laboratory sites**
4. **Corrosives** including formulation or bulk storage
5. **Dry-cleaning plants** including dry-cleaning premises or the bulk storage of dry-cleaning solvents
6. **Fertiliser manufacture** or bulk storage
7. **Gasworks** including the manufacture of gas from coal or oil feedstocks
8. **Livestock dip** or spray race operations
9. **Paint manufacture or formulation** (excluding retail paint stores)
10. **Persistent pesticide bulk storage** or use including sport turfs, market gardens, orchards, glass houses or spray sheds
11. **Pest control** including the premises of commercial pest control operators or any authorities that carry out pest control where bulk storage or preparation of pesticide occurs, including preparation of poisoned baits or filling or washing of tanks for pesticide application
12. **Pesticide manufacture** (including animal poisons, insecticides, fungicides or herbicides) including the commercial manufacturing, blending, mixing or formulating of pesticides
13. **Petroleum or petrochemical industries** including a petroleum depot, terminal, blending plant or refinery, or facilities for recovery, reprocessing or recycling petroleum-based materials, or bulk storage of petroleum or petrochemicals above or below ground
14. **Pharmaceutical manufacture** including the commercial manufacture, blending, mixing or formulation of pharmaceuticals, including animal remedies or the manufacturing of illicit drugs with the potential for environmental discharges
15. **Printing** including commercial printing using metal type, inks, dyes, or solvents (excluding photocopy shops)
16. **Skin or wool processing** including a tannery or fellmongery, or any other commercial facility for hide curing, drying, scouring or finishing or storing wool or leather products
17. **Storage tanks** or drums for fuel, chemicals or liquid waste
18. **Wood treatment or preservation** including the commercial use of anti-sapstain chemicals during milling, or bulk storage of treated timber outside

## **B. Electrical and electronic works, power generation and transmission**

1. **Batteries** including the commercial assembling, disassembling, manufacturing or recycling of batteries (but excluding retail battery stores)
2. **Electrical transformers** including the manufacturing, repairing or disposing of electrical transformers or other heavy electrical equipment
3. **Electronics** including the commercial manufacturing, reconditioning or recycling of computers, televisions and other electronic devices
4. **Power stations**, substations or switchyards

## **C. Explosives and ordnances production, storage and use**

1. **Explosive or ordnance production**, maintenance, dismantling, disposal, bulk storage or re-packaging
2. **Gun clubs or rifle ranges**, including clay targets clubs that use lead munitions outdoors
3. **Training areas set aside exclusively or primarily for the detonation of explosive ammunition**

## **D. Metal extraction, refining and reprocessing, storage and use**

1. **Abrasive blasting** including abrasive blast cleaning (excluding cleaning carried out in fully enclosed booths) or the disposal of abrasive blasting material
2. **Foundry operations** including the commercial production of metal products by injecting or pouring molten metal into moulds
3. **Metal treatment** or coating including polishing, anodising, galvanising, pickling, electroplating, or heat treatment or finishing using cyanide compounds
4. **Metalliferous ore processing** including the chemical or physical extraction of metals, including smelting, refining, fusing or refining metals
5. **Engineering workshops** with metal fabrication

## **E. Mineral extraction, refining and reprocessing, storage and use**

1. **Asbestos products** manufacture or disposal including sites with buildings containing asbestos products known to be in a deteriorated condition
2. **Asphalt or bitumen manufacture** or bulk storage (excluding single-use sites used by a mobile asphalt plant)
3. **Cement or lime manufacture** using a kiln including the storage of wastes from the manufacturing process
4. **Commercial concrete manufacture** or commercial cement storage
5. **Coal or coke yards**
6. Hydrocarbon exploration or production including well sites or flare pits
7. **Mining industries** (excluding gravel extraction) including exposure of faces or release of groundwater containing hazardous contaminants, or the storage of hazardous wastes including waste dumps or dam tailings

## **F. Vehicle refuelling, service and repair**

1. **Airports** including fuel storage, workshops, washdown areas, or fire practice areas
2. **Brake lining manufacturers**, repairers or recyclers
3. **Engine reconditioning workshops**
4. **Motor vehicle workshops**
5. **Port activities** including dry docks or marine vessel maintenance facilities
6. **Railway yards** including goods-handling yards, workshops, refuelling facilities or maintenance areas
7. **Service stations** including retail or commercial refuelling facilities
8. **Transport depots** or yards including areas used for refuelling or the bulk storage of hazardous substances

## **G. Cemeteries and waste recycling, treatment and disposal**

1. **Cemeteries**
2. **Drum or tank reconditioning** or recycling
3. **Landfill sites**
4. **Scrap yards** including automotive dismantling, wrecking or scrap metal yards
5. **Waste disposal to land** (excluding where biosolids have been used as soil conditioners)
6. **Waste recycling or waste or wastewater treatment**

## **H. Any land that has been subject to the migration of hazardous substances from adjacent land in sufficient quantity that it could be a risk to human health or the environment**

## **I. Any other land that has been subject to the intentional or accidental release of a hazardous substance in sufficient quantity that it could be a risk to human health or the environment**