## Impact of ashes on ground conditions

Human cremated remains are 'inert' and sterile.

They also have a very high pH. They have a pH 11.8 of compared to bleach of pH 11.

Ashes have a very high sodium content that is 2000 x higher than the tolerance level of plants.

The cremation process destroys all of the natural elements that cause decomposition, meaning that left alone, ashes will not degrade further for a very long time.

Therefore ashes have an environmental impact on the ground where they are placed. When water mixes with the ashes, the saline solution created seeps into the ground and the pH of the soil of is changed.

Ashes scattered on grass will 'burn' the surface.

This is why crematoria have problems with rose beds and gardens where ashes are interred and frequently have to replace plants. Ashes cause issues with microfauna and plants.

To overcome the issues created by the presence of ashes you would need a 3 step action:

- Reduce the pH
- Add a bonding agent to stop the sodium interring with plant roots
- Reintroduce natural decomposition agents to stimulate the breakdown of the ashes/bone e.g. bacteria, microorganisms and enzymes

Note: any interred sets of ashes cannot be interfered with, without a licence and family consent. Therefore it is not possible to 'treat' existing ashes areas. The ground cannot be disturbed or 'repaired'.

Prevention is better than cure.

This is a new field of study and the environmental impact of ashes is only starting to be understood.

The Council should take this into consideration when making any decisions about the future of interring cremated remains at Stanwick Cemetery.