

INTRODUCTION

The stamping of concrete driveways to create a faux 'paved' effect is a popular practice, which can enhance the aesthetic appeal of our built environment. However, the improper disposal of concrete slurry and paint ochres from this practice can lead to the pollution of our natural environment. This fact sheet aims to provide a better understanding of the impacts of this pollution and provide suggestions on how this can be minimised.

LEGISLATION

The Protection of the Environment Operations Act 1997 prohibits the introduction of any 'foreign' material into the stormwater system or any system that could lead to the stormwater system. This includes the washing of concrete slurry and paint ochres from driveways. Fines can be imposed for breaching this legislation. The introduction of this material into the stormwater system is to be avoided.

WHAT HAPPENS WHEN CONCRETE SLURRIES AND PAINT OCHRES ARE INCORRECTLY DISPOSED OF?

The sediments and pigments found in concrete slurry and paint ochres can increase the turbidity of the receiving water body. This can reduce the amount of sunlight reaching aquatic plants for photosynthesis. This also causes health problems for other aquatic life forms, for example, by clogging the gills of fish, and reducing the dissolved oxygen of the water body which can lead to fish kills. Calcium hydroxide found in the concrete slurry can also increase the alkalinity of the water body, which provides a further stress for aquatic life.

THE SOLUTION

A simple but effective measure to prevent this material from entering the drain is by creating a sand "sausage" barrier upstream of the nearest drain entrance. The "sausage" should be at least equal to the height of the gutter, and wide enough to ensure the structure will not be eroded by the volume of liquid it is to contain. By using a two parts sand to one part clay barrier the waste stream is filtered on a physical and chemical basis. The sand will filter the larger sediments while the finer particles of calcium hydroxide in the slurry and haematite in the paint ochre will bind to the clay particles to stabilise the chemical alkalinity of the liquid. Any type of clay may be used in the sausage, so long as it has been dried and broken into small pieces to allow for the binding of fine particles. Once the water stream has passed through the "sausage" and the remaining sediment has dried, it can be removed and placed in a waste container for appropriate disposal. Any remaining cement dust can also be swept up and placed in a waste container. The sand "sausage" should remain in place until all slurry has fully set and been removed. Once the job is complete the barrier can be removed to allow for the proper functioning of the drainage system once again. When using this system, no work should occur in wet weather, when it is difficult to control stormwater flow.

CONCLUSION

The simple solution outlined above is an effective method of reducing the amount of pollution entering the stormwater system. It will enhance the aesthetic value of the natural environment as well as preserving wildlife and their habitats. Your attention to protecting our environment is appreciated.

Disclaimers

This Fact Sheet was believed to be correct at the date of its approval.

This Fact Sheet is for general information purposes only.