Pollution from Construction

Construction and demolition activities can use, create or disturb many potentially polluting materials including silt, cement, oil, fuel and chemicals.

Planning and Preparation

- Investigate the previous use of the land. This will identify whether or not a site that is intended for development may be contaminated. Sites that may be contaminated include garages, petrol stations, gas works, dry cleaners etc. The relevant policy and guidance note relating to the information that might need to be provided in the process of applying for permission to develop land that is or might be contaminated is available from Planning and Building Services Tel: 445508.
- Ensure that there is a plan in place to deal with any waste generated on site and that it complies with the provisions of the Waste Management (Jersey) Law, 2005. Environmental Protection can provide advice on the requirements of this Law Tel: 441600.
- Alert staff to the potential causes and risks of pollution from their individual activities. Ensure that workers are fully aware of precautions to prevent pollution and procedures to follow in the event of an accident. Make sure that there is an adequate spill kit to use in the event of a spill or leak.
- Secure the site from vandalism and other third party damage. Vandalism is a common factor leading to pollution e.g. by deliberate interference or collision.

Site Drainage

 On most sites there are likely to be two separate types of drainage system with which everyone should be familiar. The surface water system includes most roadside and other outside drains. This system is designed to carry clean rain water from rooftops roads and driveways. Surface water drains almost always discharge into a watercourse and then on to the sea, and nothing which could cause pollution should enter them e.g. paints, oils, silt. The **foul water system** carries foul water to Bellozanne sewage treatment works or an individual private sewage treatment system if the property is not on mains drains. It may be possible to pump certain types of effluent generated on site to the foul sewer by prior arrangement with Transport and Technical Services Tel: 445509.

Construction Pollution Prevention Checklist

- Water containing silt and other suspended material must undergo a settlement or filtration process before being discharged.
- Cement and concrete are highly polluting. Mix them in a contained area and don't allow the washings from plant or machinery to enter surface water drains.
- Spilt oils, fuels or chemicals should never be washed into a drain or watercourse or allowed to soak into the ground.
- Contain leaks and spills of oil, fuel or chemicals where possible and prevent the spill from entering drains or watercourses by using suitable absorbent materials. Collect and dispose of contaminated materials correctly in order to reduce the risk of further pollution.
- Report any spillages to Environmental Protection via the hotline number.

Remember

Causing or knowingly permitting pollution of controlled waters is an offence under the Water Pollution (Jersey)
Law, 2000. There are however strong defences that may be available to persons acting in a responsible manner. A copy of the law can be obtained from the States Greffe bookshop or it can be viewed at www.jerseylaw.je

Water Pollution Hotline Tel: 709535



ENVIRONMENTAL PROTECTION, ENVIRONMENT DIVISION, PLANNING AND ENVIRONMENT DEPARTMENT



Sources of Pollution from Construction

Silt

- Silt may appear harmless because it is not directly toxic to aquatic life. It can however cause serious damage if washed into streams, ponds, reservoirs etc. Deposits of silt can cause problems with flooding, reduce the growth of aquatic plants and clog the gills of aquatic animals.
- Silty water can arise from excavations, de-watering, borehole construction, exposed ground, stockpiles, plant and wheel washing and site roads. Water containing silt should never be pumped or discharged directly into a stream or surface water drain.



Silt pollution

Silt and cement can cause serious damage if washed into ponds, streams, reservoirs etc.

- Water containing silt and other suspended material must undergo a settlement or filtration process before being discharged.
- Prevent surface or groundwater entering excavations. Pump or bail surplus water with minimum disturbance to reduce the need for settlement or filtration.
- Seed or cover exposed ground or soil to prevent rain washing away silt.
- Regularly scrape or brush dust and mud from site roads or investigate the construction of wheelwashing facilities

Sources of Pollution from Construction

Concrete and Cement

- Fresh concrete and cement are very alkaline and corrosive and can cause serious pollution in watercourses. They raise the pH of the water, resulting in damage to biological aquatic habitats and may result in death to plants and animals including fish.
- Suitable provision should be made for the washing out of concrete mixing plant. Washings should not be allowed to flow into a drain or watercourse.
- Mix in a contained area that is well away from surface water drains and watercourses.
- Only use quick drying or setting mixes near drains or watercourses.
- Use a re-circulating system for cleaning equipment.
 Never discharge the effluent to surface water drains or watercourses.

If you're not sure, don't guess.



Cement pollution

Can dramatically alter the chemical composition of surface waters.

Water Pollution Hotline Tel: 709535

Sources of Pollution from Construction Oil, Fuel and Chemicals

- Oil, fuel and other chemicals can be very damaging to aquatic eco-systems. Some chemicals are directly poisonous to plants and animals whilst others may deplete the water of oxygen.
- A growing number of pollution incidents are a result of oil and fuel spillages. Even relatively small spills can be time-consuming and expensive to clean up.
- Oil, fuel and chemicals containers should be kept in secure, vandal-proof areas. They should be protected from the elements or accidental damage.
- Storage areas, tanks and drums should be bunded. The base and bund walls should be impervious to the materials being stored.
- The bund should be able to hold a minimum of 110% of the volume being stored.
- Leaking, corroded or 'empty' drums should be immediately remove and dispose of correctly.
- Contain, absorb and dispose of spilt products correctly.
 Keep appropriate equipment nearby so that spilt materials are prevented from entering drains, watercourses or soaking into the ground.
- Vehicle refuelling should be strictly controlled and take place away from watercourses or drains. Never leave vehicles unattended whilst refuelling.
- Check hoses and valves regularly for corrosion or damage. Turn off valves and lock securely when not in use
- Storage tanks should be empty before being moved or decommissioned. Pipes should be capped and valves locked to prevent spills.
- See the oil pollution prevention leaflet in this series for more pollution prevention measures.