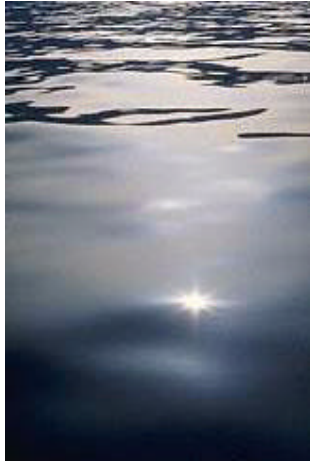


St Andrews Waste Water Treatment Works

Case Record



Carillion Infrastructure Services Safety Adviser's and Works Manager visiting Greyfriars Roman Catholic School during June 2000.



During construction work at St Andrews waste water treatment works the following environmental initiatives have been documented...

Location	St. Andrews, Scotland
Client	East of Scotland Water
Main Contractor	Carillion Infrastructure Services

Reconstruction of St. Andrews waste water treatment works in Scotland.

Environmental Initiatives

Community interaction	School visits
Waste reduction	Reduce amount of materials purchased & re-use where possible.
Energy reduction	Reduce office energy use and vehicle movements.
Dust abatement	Speed restrictions and damping down.
Noise mitigation	Through design and equipment selection.

Community liaison

Good community relationships have been established throughout the local community. As demonstrated in the above photograph. The visit to a local primary school explained the benefits the new waste water treatment works would bring to the St Andrews area. Health and Safety issues were also demonstrated with a video presentation on the 'Dangers to Children on Construction Sites'. Those close to the site including local residents, a public swimming pool, a community centre and nursery were kept up to date on the progress of the works and any potential inconveniences through regular stakeholder meetings.

Waste Reduction

There was the potential for large quantities of concrete waste to be generated. Therefore, a waste reduction target was included in the contract (which Carillion succeeded in achieving). The proportion of concrete waste compared to the amount of concrete purchased was reduced to 3.2%. This is a significant achievement compared to the construction industry average of 5%. The specification was improved to enable the re-use of material as backfill for structures. This saved 20,000 tonnes of fill that would have otherwise been brought on to site. It also reduced the associated vehicle movement and their impacts. Timber used in the temporary works was also re-used with similar benefits. In the offices, electronic distribution systems were utilised to reduce waste. With any waste paper being shredded and donated to a local rare breeds initiative for bedding.

Noise Mitigation

The design team worked closely with Casella Stanger to limit the noise produced by the finished Treatment Plant. A change in the equipment used was introduced in order to reduce the level and duration of noise nuisance.

Wildlife Protection

A group of Maiden Pink flowers, which are rare in Scotland, were discovered close to the site and fenced off for their protection.

Surface water from the site drains into a coastal Site of Special Scientific Interest (SSSI). Soil stripping has increased the risk of sediment pollution into the SSSI but through the construction of settlement lagoons, filter drains and hay bale filters the risk was alleviated. In anticipation of heavier rainfalls over the winter a filter drain was constructed to divert field drainage around the site to reduce the risk of contamination

Pollution Prevention

Site fuelling facilities were bunded and drip trays used with all plant.

Water Conservation

12 million litres of sea water was utilised for hydrostatic testing in lieu of fresh water.

Dust Abatement

Speed restrictions existed on site and damping down took place on access roads during drier periods.