



QUARRIES

Quarries are places where rock, gravel or sand is dug up and extracted from the earth to build or make things that we need, such as materials for houses and roads. They are usually situated quite close to our towns and cities, where we use most of the rock materials they provide.

The extraction process entails not only the removal of the desired material, but also large amounts of waste products. These materials include the overburden that covers the deposits, and wastes produced in the processing and concentration of the rock materials. Quarrying changes the natural topography considerably, destroys the surrounding vegetation and usually results in the creation of permanent holes in the land. These voids can have an impact on ground water and surface water quality, air quality and aesthetics.

When quarrying has finished, the site is rehabilitated to try and restore the site as close to the natural conditions as possible. Many old quarries are used for entirely different

purposes such as landfill and recycling centres, nature conservation, sporting fields and residential development. However, sand and gravel pits are often located on flood plains or in the coastal belt. Many are small and shallow and have little potential for productive use. As they are located near natural waterways, the permeability of the material makes them particularly environmentally sensitive.

By finding ways to recover and recycle used aggregates, ever-diminishing landfill space and the surface biodiversity destroyed in quarrying is conserved. It closes the resource loop ensuring valuable resources are not wasted but are put back into good use. Some products like asphalt (used for road surfaces) can be recycled, while recycled concrete is recovered from the demolition of buildings and road pavements and contains a mixture of aggregates as well as other materials such as mortar (sand and cement) and possibly bricks and rock rubble.

WHAT CAN I DO?

- Support businesses that use materials that include recycled materials wherever possible. Substituting recycled construction materials made from natural aggregates helps extend the lives of quarries and also extends the lives of landfill sites. Aggregates are quarried from rocks that have been chosen because they are strong and also resistant to chemical attack. This means we can recycle the construction materials where aggregates are the major ingredient.

MORE INFORMATION

- <http://www.quarry.com.au> - the Institute of Quarrying Australia
- http://wilderness.org.au/campaigns/marine/ningaloo_reef/cape_range/ - An example of how quarrying can affect sensitive areas.
- http://www.jaggerhims.com/public_html/techpapers/techpaperh1.html - the effects of quarries on groundwater and surface water resources.
- http://www.epa.nsw.gov.au/soe/95/25_1.htm - provides facts and figures on quarrying in NSW, including environmental indicators
- <http://www.oxfam.org.au/campaigns/mining/> - Oxfam website on working with communities adversely affected by extractive industries.