

Kwinana Industrial Area (KIA)

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The Kwinana Industrial Area (KIA) was established in the 1950s by a special Act of Parliament, which secured an area of about 120 km² to accommodate the development of major resource processing industries in Western Australia.

Located 40 km south of Perth's city centre and adjacent to the sheltered deep waters of Cockburn Sound, the KIA has a well developed infrastructure; access to skilled labour; a close association with the local community and the advantage of the co-existence of diverse and complementary industries.

The KIA's many features make it a world-class industrial estate. The deep water port is capable of handling large bulk cargo ships and a 30 minute freeway drive links it to Perth's central business district. There are also road and rail links to the Fremantle container port, which connects the area to the world's markets. Kwinana is strategically placed for exporting and importing, having direct shipping access to South East Asia.

Since the construction of a single oil refinery in the early 1950s, the KIA has grown to encompass a diverse range of industrial activities.

They range from fabrication and construction facilities through to high technology chemical and biotechnology plants and large resource processing industries such as titanium dioxide pigment production and alumina and nickel refineries.



These are complemented with a variety of utility operations including power stations, cogeneration plants, air separation plants, port facilities, desalination and waste water treatment plants.

The Kwinana Industries Synergies Project (KISP) enables the industries of Kwinana to achieve greater efficiencies in energy, water and materials consumption and reductions in waste and emission generation through:

- reductions in air emissions
- cleaner production
- waste minimisation and
- water conservation and waste water reuse.

The Kwinana Industries Council continually nurtures and facilitates synergies between companies in the KIA. Continued research by Curtin University's Centre for Sustainable Resource Processing brings independent rigour to synergies which improve the area's economic and environmental outcomes.¹

These efficiencies, reductions, savings and environmental benefits can be measured in hundreds of thousands of tonnes of waste and gases and multiple gigalitres of water each year. KISP provides practical support to the companies of the Kwinana region: helping them develop, evaluate and implement environmentally beneficial synergy opportunities.

Since its inception the synergies created by KISP have resulted in continuing:

- water savings of 8,200 ML/year
- energy savings of 3,750 TJ/year
- waste reductions of 421,600 tonnes/year
- gas emission reductions of more than 134,000 metric tonnes per year
- carbon dioxide emission reductions the equivalent of removing 73,000 cars from the road.

These savings are generated by 32 by-product and 15 shared utility synergies which would not have been realised without KISP.

The future has great potential for further environmental savings. Another 127 possible synergies have been identified by the project, setting the stage for greater reductions in industry's environmental impact.



Snapshot of the KIA:

- Provides a major source of revenue for the Western Australian and Australian economies with direct sales of more than \$8.5 billion per annum;
- Is Western Australia's largest industrial area with an annual output worth up to \$16 billion²
- Employs more than 4,800 people directly, 64% of whom live locally
- Generates a further 26,000 indirect jobs
- Contributes a high degree of social benefit to employees and its community with a high level of employee services and at least half of community partnerships invested locally
- Comprises a unique blend of connecting heavy, support and infrastructure industries with more than 200 synergies, or industrial exchanges, between industries
- Anticipates capital expenditure of more than \$2.5 billion over the next 10 years.

The Kwinana Industrial Area is one of the few areas in the world where so many companies work with their industrial neighbours and the local community to achieve a range of benefits and advantages for the environment, community and industry.

¹ See Kwinana Industries Synergies Project 2008 Report at kic.org.au/reports.asp

² As measured independently in 2007. For full details of KIA production seek KIA Integrated Assessment 2007 at kic.org.au/reports.asp