

EnviroDevelopment Case Study

Wickham South



Size: 738 lots
Location: Pilbara, WA
Developer: Rio Tinto Iron Ore

Project Overview: Wickham South, an extension to the existing Pilbara town, is the first development in WA to be awarded EnviroDevelopment Certification in five elements.

The development has been awarded certification in Ecosystems, Waste, Energy, Water and Community.

Rio Tinto Iron Ore has embraced the concept of EnviroDevelopment and will deliver a sustainable development and build a community to accommodate the growing Rio Tinto workforce and to revitalise the existing Wickham town.



Elements

Community: Rio Tinto Iron Ore have designed Wickham South to deliver a vibrant, cohesive, adaptable, prosperous and sustainable community through the development of community spirit, extensive local facilities and a partnership with the existing community which allows opportunities for consultation and future engagement. Community has been achieved through:

- Its significant investment in recreational and sporting facilities
- Establishing targets for Indigenous employment
- Inclusion of public art within the development that will reflect local heritage
- The support and provision of public transport for community
- Public open space throughout development provides facilities to encourage social interaction
- Numerous facilities available within town and in walking distance
- The consideration of indoor air quality and personal safety in housing design



Waste: Rio Tinto Iron Ore have taken steps to use resources more efficiently and minimise the amount of waste sent to landfill. For example:

- Performance target set for reuse and at least 60 per cent of construction materials will be recycled
- Waste minimisation will be realised through efficiencies in the manufacturing process associated with modular, transportable housing
- On site recycling facility for construction materials
- Waste minimisation and recycling strategies are included in community education programme

Energy: A number of initiatives at Wickham South allows the development to achieve a 20 per cent reduction in greenhouse gas emissions and will assist home owners to reduce their energy consumption. These include:

- Careful planning to maximize the number of lots with ideal solar orientation
- Dwellings will perform above the current thermal performance requirements and achieve over a 7 Star BCA rating. This initiative alone will achieve a 14 per cent reduction in greenhouse gas emissions
- All homes will include energy efficient lighting
- All homes will be fitted with an in-house display of live energy consumption - a behaviour change tool to aid reduction of energy use

Water: Water management at Wickham South has been designed to significantly reduce potable water demand. Initiatives incorporated into the development include:

- All public open space will be irrigated with treated wastewater
- Natives and waterwise species will be planted in POS and drainage swales
- Landscaping for each resident will use waterwise species
- All homes will be fitted with water efficient internal fittings and fixtures
- All homes will be fitted with an in-house display of live water consumption - a leading initiative to aid behaviour change

Ecosystems: Rio Tinto Iron Ore has demonstrated an outstanding commitment to the preservation and enhancement of the development site's natural ecosystem through:

- Extension of best practice environmental management actions implemented during mining operations for the development of Wickham South
- Inclusion of local endemic species and waterwise plants used for landscaping
- Allocation of open space throughout development area
- Existing drainage paths maintained and enhanced with native plantings
- The site's topography has been considered in design