Fact Sheet 1 – The Macarthur Resource Recovery Park

- The Macarthur Resource Recovery Park will be built and operated by WSN Environmental Solutions on their existing Jacks Gully (Narellan) site.
- It will be the first large scale fully integrated municipal waste management site in Australia.
- The Park will process recyclables, organics and mixed solid waste from the Campbelltown, Camden, Wollondilly and Wingecarribee council areas.
- These four councils will be the foundation partners in the Park.
- All waste brought to the Park will be treated on-site, and generally only recovered products such as recyclables and compost will leave the site.
- The site will include a number of integrated facilities including:
 - the EcolibriumTM Mixed Waste Facility designed to process up to 90,000 tonnes of household 0
 - waste per year; the EcolibriumTM Organics Facility, a fully enclosed tunnel composting system to process 30,000 0 tonnes of organic material each year. Mulch and compost produced will be sold through WSN's "Garden to Garden" brand;
 - a Materials Recycling Facility (MRF) for sorting up to 30,000 tonnes of recyclables per year; 0
 - a Resident "Drop-off Centre" for community members to dispose of small quantities of 0 putrescible and green waste, recyclables and domestic hazardous materials;
 - a Community Visitor and Education Centre; 0
 - a "Revolve Centre" for the sale of recovered items; 0
 - a "Clean Up Waste" recovery facility for sorting items collected from councils' kerbside clean up 0 service: and
 - a landfill for non-putrescible waste. 0
- The Park's design is based on WSN Environmental Solutions' Ecolibrium[™] philosophy of balancing environmental and economic needs and local factors with world-class technologies to create a tailored solution that meets the requirements of the local community.
- The Macarthur Resource Recovery Park will be built at a cost of around \$50 million.
- Construction is expected to commence in late 2006 and the site should be fully operational by the end of 2008.
- The contract between WSN Environmental Solutions and the four councils is valued at around \$150 million over 15 years.
- The development will also be good for the local economy, providing between 30 and 50 jobs during the construction phase, and 40 full-time jobs when operational.



Fact Sheet 2 - The Ecolibrium[™] Mixed Waste Facility

- The centrepiece of the Macarthur Resource Recovery Park is the Ecolibrium[™] Mixed Waste Facility, using world leading ArrowBio technology from the Arrow Ecology Group in Israel.
- ArrowBio is a proven technology that has been operating in a full-scale commercial plant in Israel for three years and has recently been short listed by the City of New York.
- The Ecolibrium[™] Mixed Waste Facility that will be constructed at the Macarthur Resource Recovery Park is designed to process up to 90,000 tonnes of household waste each year and divert around 70% from landfill.
- At full capacity the Facility is designed to recover enough green energy to power around 2,500 homes, 18,000 tonnes of recyclables, 10,000 tonnes of material that may be used for fertiliser, and treated water.
- The process begins with a receival and pre-processing unit where large or hazardous items are removed.
- The second stage uses water to float light items such as plastics away from heavy items such as metals.
- The organic component of the waste stream is then treated with natural biological processes to produce water, stabilized organic material that may be used for a fertiliser and generate bio-gas that is used to produce enough green electricity to power around 2,500 homes.



- The Facility, which is largely enclosed, is designed to minimise odour emissions. Any exhaust air will be passed through a biofilter to further reduce odours.
- The use of a water-based process reduces the production of volatile organic compounds that are the main causes of odour.



- The ArrowBio process is designed to capture up to 100% of the biogas that is produced as waste breaks down.
- This will prevent 23,000 tonnes of greenhouse gas emissions per year equivalent to taking around 5,000 cars off the road.
- The Facility will produce more water than it uses, capturing the moisture in the waste to supply the water requirements of the process, and exporting excess water to be used for on-site irrigation purposes.
- The Ecolibrium[™] Mixed Waste Facility has a footprint of less than two hectares, so its environmental impact is kept to a minimum.
- The development will also be good for the local economy, providing between 30 and 50 jobs during the construction phase, and 40 full-time jobs when the Ecolibrium[™] Mixed Waste Facility and Ecolibrium[™] Organics Facility are operational.



Fact Sheet 3 – The Ecolibrium[™] Organics Facility

- The Ecolibrium[™] Organics Facility is a fully enclosed, environmentally controlled tunnel composting system using a proven technology.
- The Facility will be very similar to the highly successful Port Macquarie composting facility that is used by Hastings Council.
- Tunnel composting is a simple technology that uses natural decomposition processes in an enclosed, controlled environment.
- The decomposition process takes place inside concrete tunnels and takes as little as 21 days to produce high quality compost material.



- The Facility is designed to process 30,000 tonnes of organics each year. It is anticipated that this will produce around 18,000 tonnes of high-grade compost and mulch that comply with Australian Standards.
- The plant can be expanded very simply by adding extra tunnels.
- The Ecolibrium[™] Organics Facility will process garden organics blended with the organic material produced from the Ecolibrium[™] Mixed Waste Facility and nutrient rich bio-solids from Sydney Water,
- The Facility is designed to minimise the impact of odour on the surrounding community by ensuring that composting activities are contained within concrete tunnels.
- Exhaust air from the tunnels will be passed through a biofilter to remove odours.
- A strict contamination management program will ensure that unwanted items are kept out of the compost and that the final product will be of a high quality and free of pathogens.



- Any contamination received at the Ecolibrium[™] Organics Facility (except hazardous and construction materials) will be transferred to the Ecolibrium[™] Mixed Waste Facility to undergo further processing and extract more beneficial products.
- There will be no increase in vehicle movements to the site.

