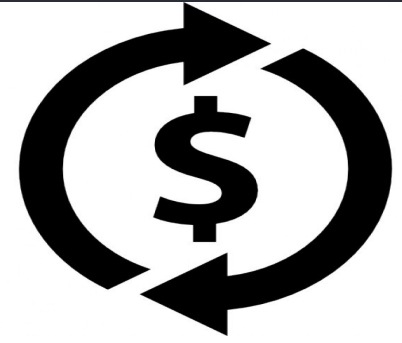




The Waste Hierarchy



Sustainable Solutions International Pty Ltd (SSI) specialise in development and delivery of solid waste management consultancy services for new and existing residential, commercial and industrial developments. SSI offers this service to clients with an interest in improving their environmental and economic performance and enhancing their development or business operation. This is achieved by reducing, recovering and reusing waste which would otherwise go to landfill. The environmental and economic benefits of implementing a Solid Waste Management Plan (SWMP) include:

- Minimising the amount of waste being disposed of to landfill;
- Maximising recovery of reusable and recyclable materials;
- Reducing waste cartage frequency, cost and associated greenhouse gas emissions;
- A Reduction in odour, vermin and aesthetic impacts of solid waste storage;
- Reducing the need to import chemical fertilisers as organic waste—organic material can be composted to provide a valuable soil supplement product; and
- Reducing waste collection and processing charges.

Solid waste management plans consists of the following stages:

Step 1: Preliminary waste auditing and estimation

- Accurate estimation/measurement of waste production and its breakdown is required for successful solid waste management:
 - Waste auditing is strongly recommended for operational sites to accurately understand waste production patterns; and
 - Estimations based on previous audits, published standard guidelines is typically used for proposed developments.
- Utilising this information SSI can develop a waste stream breakdown for the site.

Step 2: Detailed site audit & waste mass balance

- Detailed audit of facilities;
- Quantitative assessment of identified waste streams; and
- Assessment of current waste management strategy and waste greenhouse gas liability.

Step 3 – Sustainable waste management strategy development

Waste Avoidance

- Implement waste avoidance strategies;
- Quantify waste reduced by implementation of avoidance techniques;
- Quantify reduction of waste to landfill and liability of GHG; and
- Educate staff and community to enable advancements.

Waste Reduction

- Identify opportunities to reduce waste;
- Quantify volume waste reduced.
- Quantify volume of reduced waste to landfill and liability of greenhouse gases (GHG); and
- Educate staff and community to better manage waste reduction processes.

Waste Reuse

- Research and assess feasibility of suitable reuse techniques and technologies;
- Quantify and assess opportunities to reduce waste generated and waste sent to landfill, reducing GHG emission liability; and
- Assess cost and payback periods for reuse technologies.

Waste Recycling

- Research and assess feasibility of appropriate recycling techniques and technologies;
- Quantify and assess opportunities to reduce waste generated and waste sent to landfill, reducing GHG emission liability; and
- Assess cost and payback periods for reuse technologies.

Waste Disposal

- Research and assess feasibility of appropriate disposal techniques and technologies;
- Quantify and assess opportunities to reduce waste generated and waste sent to landfill, reducing GHG emission liability; and
- Assess costs for disposal.

Asset & Maintenance Management	Design Construction Management & Commissioning	Efficiency Audits & Cleaner Production	Environmental Compliance & Licensing	Master Planning	Plant Assessment & Optimisation	Sustainable Resource Management	Risk Assessments (HACCP & HAZOP)
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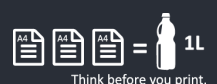
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Water.Energy.Waste.



Solid Waste Management Plans

Key Projects

The Ridge on Binna Burra

The Ridge on Binna Burra is a ecotourism and sustainability education centre set amongst 200 acres of rainforest in the Gold Coast Hinterland, Queensland. The development consists of accommodation units, camping areas, a community centre, permaculture gardens, workshop spaces and meditation and relaxation areas.

SSI developed the Solid Waste Management Plan for The Ridge and designed its waste management programs; including an onsite composting facility to process all the development's organic waste for beneficial reuse in the permaculture gardens and landscaped areas. The composting technology chosen for this particular development was the Earth Tub process.



Pelican Links Sustainable Sub-division

Pelican Links is a proposed lakeside subdivision near Caloundra, Sunshine Coast, Queensland. The development is to be located adjacent to the existing Pelican Links Golf Course and will comprise of 175 lots made up of detached dwellings, villas, townhouses and terraces, as well as a 24 room hotel and recreation club.

SSI prepared the Development's solid waste management plan, and recommended the use of the Vertical Composting Unit (VCU) to process all organic waste onsite for beneficial reuse on the Pelican Links Golf Course.



The Orion Shopping Centre

The Orion Shopping Centre was developed as the community focal point and regional shopping centre for Greater Springfield, near Ipswich, Queensland. The Orion centre, is on a 40 hectare site integrating the retail streetscape with the natural outdoor environment. As well as retail facilities, Orion also provide sport and recreational facilities, health and fitness services, restaurants, cafes and a tavern.

SSI prepared a solid waste management plan for the first stage of the development.



Bond University – Mirvac School of Sustainable Development Building

Bond University's Mirvac School of Sustainable Development building, which has innovatively reduced carbon emissions by 80 percent and is Australia's first higher education building to receive a 6 Star Green Star Design Rating, received the Royal Institution of Chartered Surveyors (RICS) award for the *world's best example of carbon-friendly and sustainable design- 2009*.

SSI developed the solid waste management plan for the site that incorporated waste separation, offsite management of recyclables and general waste and onsite organic waste composting of all food and landscape waste produced from the building.



Asset & Maintenance Management	Design Construction Management & Commissioning	Efficiency Audits & Cleaner Production	Environmental Compliance & Licensing	Master Planning	Plant Assessment & Optimisation	Sustainable Resource Management	Risk Assessments (HACCP & HAZOP)
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