Sustainable Solutions International
Engineering. Ethics. Environment.

Technical Project Management



Sustainable Solutions International Pty Ltd (SSI) has built a dynamic multi disciplinary team consisting of engineering professionals experienced in process, chemical, mechanical, environmental & electrical disciplines. Our extended experience and project management capability allows us to offer professionalism, ethical decision making, integrity and commitment in order to exceed our clients expectations.

Sustainable Solutions International has been providing professional Technical Project Management services to our clients for more than 10 years. Our services are tailored to meet our clients' specific needs and we adopt a collaborative approach to project delivery.

HOW DOES SSI PROJECT MANAGE SAVE YOU MONEY AND MANAGE RISK?

There are many project management methodologies, however fundamentally, project management is the discipline of initiating, defining, planning, executing (design, installation and commissioning), controlling, and closing the work of a team to achieve specific goals and meet specific success criteria.

Success is achieved if a project is Specific, Measureable, Achievable, Realistic and Time-bound (SMART). Our personnel have project management experience in a number of industries including water and wastewater treatment, mining & mineral processing, oil & gas, food processing and pharmaceuticals.

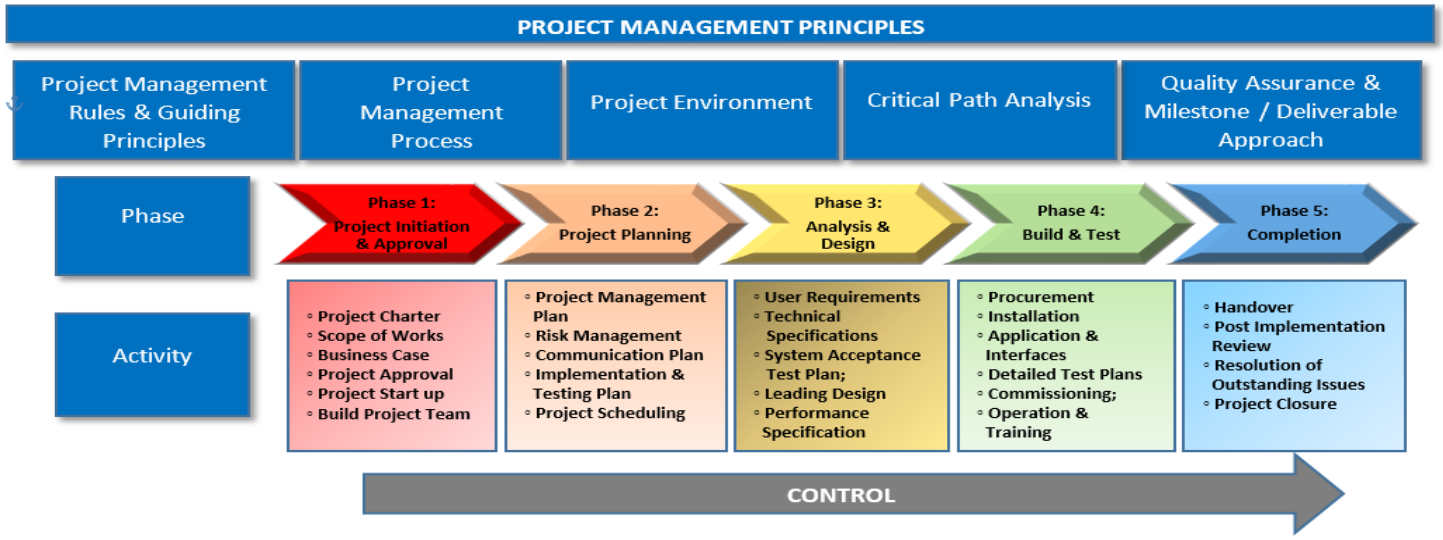
SSI'S PROJECT MANAGEMENT PHASES

Phase 1 - Project Concept & Initiation

During the initiation of a project it is important to define the nature and scope of the product, service or another desirable outcome. Tasks during the initiation include:

- Business case;
- Scope and deliverables;
- Objectives;
- Resources needed;
- Milestone plan and timelines for final delivery;
- Initial budget estimate;
- Risks and issues; and
- Dependencies.

SSI will analyse and assess the business needs and goals to be achieved. After defining project objectives, a review of resources available, project stages, activities to be carried out, deliverables, time frames and budgets will be conducted & a project baseline developed.



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)

For more information please contact:
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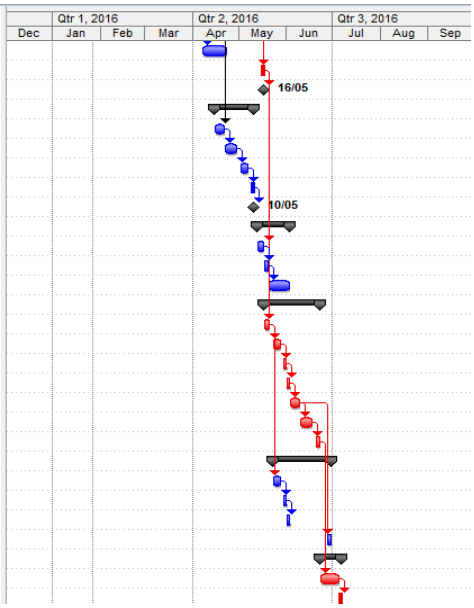
	Task Name	Duration	Start	Finish	% Complete	Prede
75	Fit out container	12 days	Thu 7/04/16	Fri 22/04/16	0%	74
76	Delivery B: R-Wolf to Site	1 day	Mon 16/05/16	Mon 16/05/16	0%	57
77	Delivery of Equipment to BP Bulwer Island site (Completion of SSI contract)	0 days	Mon 16/05/16	Mon 16/05/16	0%	76
78	**Construction Planning**	**17 days**	**Fri 15/04/16**	**Tue 10/05/16**	**0%**	
79	Prepare construction management plan	5 days	Fri 15/04/16	Thu 21/04/16	0%	50
80	Prepare construction JSAs	5 days	Fri 22/04/16	Fri 29/04/16	0%	79
81	BP to comment and approve JSAs	5 days	Mon 2/05/16	Fri 6/05/16	0%	80
82	Put in place permits	2 days	Mon 9/05/16	Tue 10/05/16	0%	81
83	**Finalise JSAs and permits and BP approved signed off**	**0 days**	**Tue 10/05/16**	**Tue 10/05/16**	0%	82
84	**On-site construction and installation**	**15 days**	**Fri 13/05/16**	**Thu 2/06/16**	**0%**	
85	Coordinating site works with TMP Project on site	2 days	Fri 13/05/16	Mon 16/05/16	0%	76FS-
86	Rough ins and prep work on site	3 days	Tue 17/05/16	Thu 19/05/16	0%	85
87	Mobilisation and installation on site	10 days	Fri 20/05/16	Thu 2/06/16	0%	86
88	**Commissioning**	**26 days**	**Tue 17/05/16**	**Wed 22/06/16**	**0%**	
89	Stage 1 commissioning- Equipment installation checks	4 days	Tue 17/05/16	Fri 20/05/16	0%	76
90	Stage 2 commissioning- Mechanical and hydraulic checks and instrumentation calibration	5 days	Mon 23/05/16	Fri 27/05/16	0%	89
91	Stage 3 commissioning- Point to point electrical wiring checks	2 days	Mon 30/05/16	Tue 31/05/16	0%	90
92	Stage 4 Commissioning- Process logic and operational alarms and safety systems checks	2 days	Wed 1/06/16	Thu 2/06/16	0%	91
93	Stage 5 Commissioning- Clean water commissioning	5 days	Fri 3/06/16	Thu 9/06/16	0%	92
94	Stage 6 Commissioning- Dirty water commissioning	5 days	Fri 10/06/16	Fri 17/06/16	0%	93
95	Stage 7 Commissioning- Plant fine tuning and stabilisation	3 days	Mon 20/06/16	Wed 22/06/16	0%	94
96	**Document Finalisation and training**	**27 days**	**Mon 23/05/16**	**Wed 29/06/16**	**0%**	
97	Prepare O&M manual	5 days	Mon 23/05/16	Fri 27/05/16	0%	89
98	Issue operational SOP's	2 days	Mon 30/05/16	Tue 31/05/16	0%	97
99	Finalise commissioning report	2 days	Wed 1/06/16	Thu 2/06/16	0%	98
100	Prepare 'As Constructed' drawings	3 days	Mon 27/06/16	Wed 29/06/16	0%	93FS-
101	**Process Proving & Challenge testing**	**10 days**	**Thu 23/06/16**	**Wed 6/07/16**	**0%**	
102	Process proving (Hold point)	8 days	Thu 23/06/16	Mon 4/07/16	0%	95
103	Challenge testing	2 days	Tue 5/07/16	Wed 6/07/16	0%	102



Phase 2 - Planning

Preparation and planning is essential to identify cost and resources required to effectively manage risks and the project deliverables. SSI is also experienced in leading the requirements for Environmental Licencing and planning and negotiating with government authorities for the client. Project scheduling is managed in MS Project to ensure delivery of the program, focusing on items with long lead times and key deliverables on the critical path.

Phase 3 - Analyse & Design

After the project plan is approved, the project enters the design and development phase where the user requirements associated with the project are specified as clearly as possible. Leadership of tasks during the design phase include:

- Ensuring Functional Requirements are completed.
- Overseeing the design including:
    - Datasheets and equipment sizing ;
    - Review and signoff of drawings — Process Flow Diagrams (PFDs), Piping & Instrumentation Diagrams (P&IDs), General Arrangement, mechanical and electrical drawings;
    - Facilitating the HAZOP process and WHS procedures;
    - Preparing tender documents and contracts; and
    - Managing the Tender Process and preparing Procurement Contracts in accordance with Australian Standards.

Phase 4 - Execution & Control

This phase involves management of the construction, installation, testing and commissioning of the project. Tasks include:

- Establish key construction and quality control inspection hold points;
- Review fabrication works and oversee installation work, prepare defects reports and manage the rectification processes;
- Sign off on all construction works ‘
- Review of Contractor documentation and procedures; and
- Tracking of the project and baseline in MS Project.

Phase 5 - Completion - Close out

The Close out phase is essential to bring the project to successful completion. Tasks in this process include:

- Manage and oversee the plant commissioning, testing and process proving;
- Review of “As Built” drawings and conduct audits on site for the accuracy specified in the drawings;
- Review and comment on the operation and maintenance manuals;
- Review Standard Operating Procedures (SOPs);
- Manage staff training for operations and plant; and
- Lead close out meetings and lessons learnt reviews.

Potable Water and Wastewater Treatment Plants, Exxon Mobile LNG PNG

Project Value Managed by SSI: $4.0M

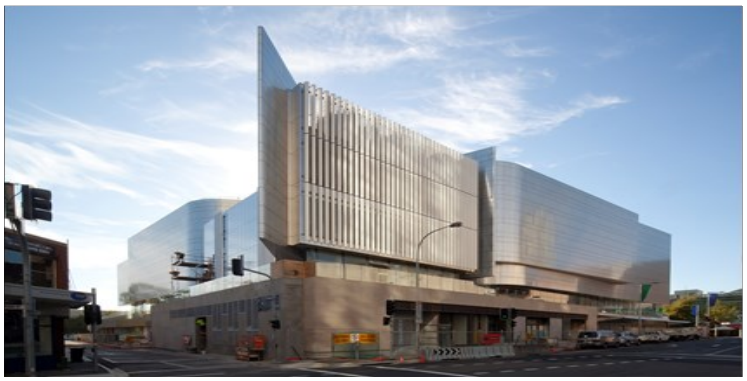
Project Summary:

The project was the construction of a water and wastewater plant for 600 people that can be manufactured in Australia and shipped to PNG

SSI was commissioned by Leightons on behalf of Exxon Mobile to project manage the design, fabrication, installation and commissioning of the Potable Water and Wastewater Treatment Plants in Papua New Guinea.

The works conducted by SSI on this project included:

- An engineering review of the detailed design; • Detailed design reviews;
- A detailed HAZOP risk assessment on the designs of the two plants;
- Reviews and comments on all construction and fabrication drawings;
- Engineering QA of fabrication and FAT process • Overseeing the Inspection and Testing Plan and witnessing of the tests and inspections;
- Managing the commissioning and process proving of the two plants;
- Reviews and comments on final documents including As Constructed Drawings, O&M, Staff training plans; and
- Assistance with the financial project management by reviewing progress payment claims.



The Concourse Chatswood– NSW, Flood Mitigation and Storm Water Recycling Plant

Project Value Managed by SSI: $6.0M

Project Summary:

The project was the construction of an automated early weather warning and flood mitigation system incorporating the treatment and recycling of storm water for recycle water supply

SSI was commissioned by Willoughby City Council to provide detailed design and technical project manage of the construction, FAT of all electrical and control systems, Commissioning & Process Proving of a Early Severe Weather Warning, Automated Flood Mitigation and Storm water Treatment & Recycling Plant

The works conducted by SSI on this project included:

- Project management of the Early Weather Warning System Interface;
- Management of the tender process;
- Preparation of procurement contracts;
- Engineering review of the detailed design;
- Detailed design reviews;
- A detailed HAZOP risk assessment on the scheme;
- Review and comments on all construction and fabrication drawings;
- Engineering QA of the fabrication and FAT process;
- Project management for the development of the SCADA system;
- Overseeing the Inspection and Testing Plan and witnessing the tests and inspections;
- Managing the commissioning and process proving of the two plants;
- Reviews and comments on final documents including As Constructed Drawings, O&M, Staff training plans;
- Reviewing progress payment claims; and
- Review of variations and negotiating variations.

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Brisbane Airport – Nano–Filtration Wastewater & Storm Water Recycling Plant

Project Value Managed by SSI: $2.0M

Project Summary:

The project was the construction of a Nano Filtration plant capable of treating saline Class A Wastewater and captured storm water in a lake for the supply of recycle water for cooling towers at the Brisbane Airport Domestic and International Terminals.

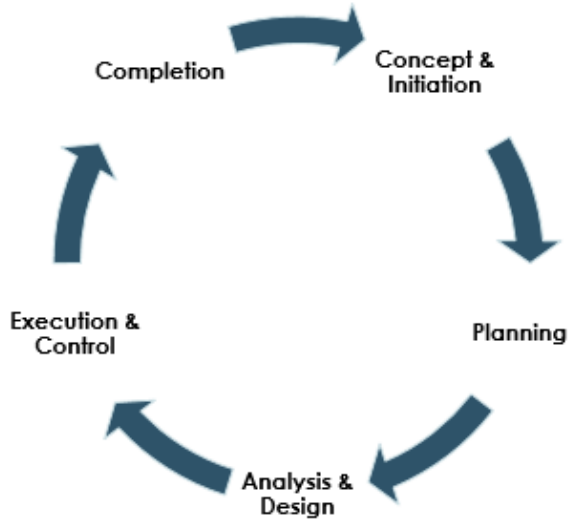
SSI was commissioned by Brisbane Airport Corporation to provide design and technical project manage input into the construction, commissioning & process proving of the Nano-filtration water recycling plant.

The works conducted by SSI on this project included:

- Engineering review of the detailed design;
- A detailed HAZOP risk assessment on the scheme;
- Reviews and comments on all construction and fabrication drawings;
- Engineering QA of fabrication and FAT process;
- Management of the commissioning and process proving of the two plants;
- Reviews and comments on final documents including As Constructed Drawings, O&M and staff training plans;
- Reviewing progress payment claims.
- Preparing documentation for state government Grant Funding; and
- Obtaining license approvals for the plant from relevant government agencies.

Why Use a Technical Project Management Company?

SSI can lead the role of project management on site to ensure success of the project. With little room for error and fewer resources to rely on, project management expertise and oversight can help your organization streamline their delivery process, cut costs and sidestep risks. Operational and maintenance staff are dedicated to their core business activities ensuring down time is minimised and production is profitable. The partial or full removal of personnel from their operational responsibilities to manage projects can impact on production or site management. The same can be said for project management. If operational staff are required to attend to everyday activities, delays and inefficiencies can impact on project deliverables, costs and timelines.



Project management is not necessarily the area of expertise or experience of your staff. SSI 's target KPI is to minimise variations to achieve a goal of less than 5% of the project value.

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