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PROJECT

Spring Bay Harbour Expansion & Maria Island Ferry Terminal – Project Management Pan

CLIENT

Glamorgan Spring Bay Council

DATE

26 April 2018

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ENGINEERING & PROJECT MANAGEMENT



Contents

1.	Introduction				
	1.1	Project	Site	1	
	1.2	Project	Background	3	
		1.2.1	Port & Marina Development Economic Benefits to Date:	3	
		1.2.2	2018 Demand Analysis & Master Plan Review	3	
2.	Project Management Plan				
	2.1	Project	Scope and Objective	5	
	2.2	Project Phases			
	2.3	Proposed Implementation Methodology			
	2.4	Timeframes			
	2.5	Budget Estimates			
	2.6	Regulatory Approvals			
		2.6.1	Crown Land Services:	11	
		2.6.2	Council Approvals	12	
	2.7	Procurement Plan			
	2.8	Risk Management Plan			
	2.9	Evaluation Plan			

Burbury Consulting Pty Ltd ACN 146 719 959 2/2 Gore Street, South Hobart, TAS 7004

P. 03 6223 8007 F. 03 6212 0642 admin@burburyconsulting.com.au www.burburyconsulting.com.au

Document Status

Rev No.	Author	Ctatus	Approved for Issue		
		Status	Name	Date	
0	J. Burbury	For Approval	J. Burbury	26/04/18	



1. Introduction

This Project Management Plan (PMP) has been prepared for Glamorgan Spring Bay Council (GSBC) for the Spring Bay Harbour Expansion and Maria Island Ferry Terminal submission to the Federal Governments Regional Growth Fund Application.

The Spring Bay Harbour Expansion and Maria Island Ferry Terminal is detailed in Figure 2 below as an overall master plan for the Spring Bay Harbour over a staged program from 2018 - 2025. The preparation of the master plan has incorporated consultation, financial assessment and design iteration to form the design intent as presented in the plan.

The proposed master plan outlines four (4) major phases of development with project stages within each key phase:

- Phase 1: Triabunna Port & Marina:
- Phase 2: New port entrance, marine servicing & ferry terminal development
- Phase 3: Commercial wharf precinct, channel realignment and land reclamation
- Phase 4: Outer harbour and landside commercial

A key initiative and advantage of the master plan is that it builds upon an initial detailed feasibility and business case for the Triabunna port and marina (Phase 1) that has seen \$4.5m invested into the existing port which has resulted in extensive growth of new investment into the town leading to the development of the proposed master plan.

This report provides the initial inputs to a Project Management Plan as outlined in the funding application.

1.1 **Project Site**

The site incorporates the existing Triabunna Port located within Spring Bay on Tasmania's east coast, 85 kilometres drive from Hobart.

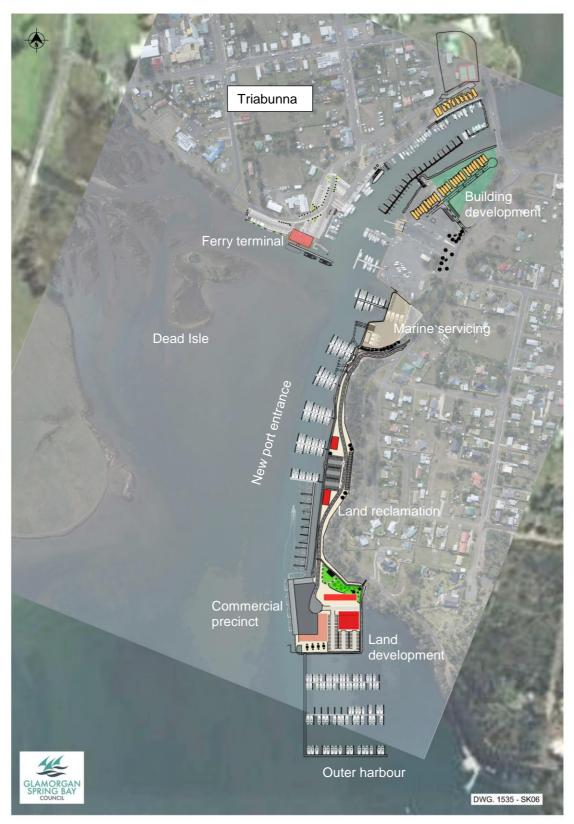
Figure 1 **Development Site**



As the only natural deep water port on Tasmania's east coast and immediately adjacent to Maria Island national park, the site is a key node for tourism, commercial fishing, charter vessels, ferry services, recreational boating and added associated businesses.



Figure 2 **Proposed Harbour Master Plan**





1.2 **Project Background**

The following works and been undertaken by GSBC within Triabunna Port:

- 2008: port wharf reconstructed due to significant dilapidation;
- 2012: a port master plan was developed for expanded recreation and commercial boating facilities including preparation of a detailed feasibility study for a \$7.5m development with a BCR OF 2.38 and ERR OF 27.3%
- 2015: Stage 1 marina completed (and immediately occupied);
- 2015: Stage 2 commercial berths completed;
- 2015: New boat ramp funded by Marine and Safety Tasmania completed;
- 2017: Stage 3 and 4 marina completed;
- 2017: Extension to commercial wharf and fuel berth completed funded by Federal Government;
- 2018: New temporary ferry berth completed; and
- 2015-2018 expenditure on port development = \$4.5m.

1.2.1 Port & Marina Development Economic Benefits to Date:

- Major components constructed locally (increased construction employment);
- Increased visitation and expenditure within Triabunna;
- Improved permanent and visitor berthing infrastructure;
- Infrastructure investment in new ferries, tourist boats and new vessels to Triabunna;
- 100% capacity within new port recreation and commercial berths with increased waiting list and high demand for increased infrastructure;

1.2.2 2018 Demand Analysis & Master Plan Review

Following the completion of the 2012 master plan major phases as revised demand analysis and master plan review was undertaken to assess the suitability of the future stages of development to cater for current and future demand. The review identified the following:

- Significant increased demand for commercial and recreational berthing;
- Increased demand for vessel servicing and maintenance, both locally and interstate visitor vessels;
- Requirement to undertake improved navigation infrastructure works for port (funded for 2018) for port entrance channel straightening and navigation aids;
- Improvement needed for port parking and interaction between port loading/unloading and port navigation;
- Infrastructure project proposed and funded for 2018:
- Realignment of the port entrance channel to improve navigability for all vessels in to port (\$250k GSBC);
- New visitor information centre for Maria Island Ferry (\$750k Tas govt/GSBC);
- Importance of siting the new visitor centre and ferry terminal in most suitable location based on access to ferries and capacity for short and long term parking and entry to port around existing slipping facility provides the best location to support ferry terminal siting away from boating activities and with clear land for short and long term parking and pedestrian access through to the port and town;
- Congestion at the existing port wharf due to increased commercial vessels and larger ferry vessel;



- Inadequate commercial vessel infrastructure at Deepwater Jetty (out of port) including short term infrastructure improvements required (MAST replacement costs of \$700k forecast for 2020);
- Commercial wharf precinct would improve safety, access, handling and support to the commercial fishing fleets based and utilising the Tasmanian waterways by:
 - Development of new multi-purpose commercial hub (remove reliance on port wharf and Deepwater Jetty);
 - New loading and unloading wharf with large vessel and large vehicle access;
 - New fish processing, seafood markets, and seafood sales;
 - Aquaculture training and learning centre;
 - Expanded dedicated commercial berthing, mooring and servicing;
 - Secure access to waterways with protection of the natural port area;
 - Larger vessel access capabilities (up to 40m vessels);
 - Increased capacity to cater for expanding aquaculture infrastructure;
 - Improved access for loading and unloading of commercial vessels;
 - Reduced risk of conflict between pedestrian and public traffic and commercial activities of port vehicle traffic;
 - Expanded commercial aquaculture capacity and support;
 - Dedicated commercial "small port" access; and
- 2025 vision developed for revised port master plan prepared for proposed growth and demand.



Project Management Plan 2.

2.1 **Project Scope and Objective**

The Spring Bay Harbour (SBH) expansion provides core infrastructure securing the long-term future of tourism, adventure travel, wildlife experiences, commercial fishing, marina activity & the Triabunna economy. It builds upon visitation growth & Great Eastern Drive promotion.

The SBH Master Plan provides an integrated work program to expand the existing Spring Bay Marina uses through a coherent public infrastructure upgrade to facilitate:

- Purpose built Maria Island ferry terminal & visitor experience centre, with car parking and public realm / township upgrades;
- Relocated, expanded & modern commercial slipway service linked to adjoining boat club;
- Large commercial wharf with associated berths, storage and seafood market for an expanding fishing fleet and associated commercial fishing and aquaculture activities;
- Straightening of the existing channel to provide safe access for large vessels to port;
- Scale for aquaculture education and integration with local businesses;
- Boatels development for residential & visitor accommodation (approved within current town planning scheme):
- Marina expansion to cater for extended demand and growth in recreational boating:
- Investment of Council & Crown Land sale proceeds and consolidation of regional marine assets;
- Value-add to local supply chain, and
- Public amenities including museum, recreational space and walkways.

Spring Bay is the gateway to Maria Island and the sole East Coast deep-water port. Significant State investment in Maria Island will increase visitations substantially over the short-term. Addressing associated infrastructure need, and existing demand for marina & commercial wharfing, generates the integrated master plan response.

The project outlines key opportunities for public and private investment through the mixed development proposal whilst making use of under utilised land and expansion in a method that allows for growth of the region.

2.2 **Project Phases**

The project scope includes the following phases and detailed scopes:

- Phase 1 Triabunna Port and Marina
 - Completed 2015 to 2018 through four (4) stage construction program incorporating:
 - Stage 1 northern marina and seawall;
 - Stage 2 relocation of boat ramp and 8 commercial berths;
 - Stage 3 wharf extension and fuel facility; and
 - Stage 4 expanded eastern marina (including dredging and reclamation).



Phase 1 Construction Progress Photo 1











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Phase 2 - Port Entrance:

- Stage 1 Dredging realignment of port entrance to improve safe access for commercial and ferry vessels into port including realignment of the channel and widening;
- Stage 2 Relocation of marine servicing and slipway including formation of new hardstand and reclamation of dredge material, new marine servicing slip facility and buildings;
- Stage 3 New Maria Island ferry terminal including expanded port car parking, dedicated ferry terminal and visitor centre, ferry wharf, port pedestrian pathways and bus lane parking;

Photo 2 **Phase 2 Extents**



Phase 3 - Commercial Precinct & Land Reclamation

- Stage 4 dredging of main entry channel into port to make way for land reclamation along eastern shoreline for greater port expansion;
- Stage 5 reclamation of dredge material into bunded seawall along landside zone from new marine servicing through to outer harbour and include treatment of reclaimed material and construction of base services and road infrastructure:
- Stage 6 construction of commercial wharf precinct reducing congestion around Triabunna port and expanding capacity to cater for increased demand on commercial fishing and aquaculture business within the region. The larger wharf precinct also allows for dedicated commercial vessel berths alongside the wharf for more efficient throughput and wharf utilisation;



Stage 7 – new recreational marina berths between marine servicing and commercial to cater for increased demand on recreational berths within the port area;

Phase 4 – Outer Harbour

Stage 8 - new outer harbour marina and landside commercial development including seafood processing building.

2.3 **Proposed Implementation Methodology**

The above phased and staged development sets out the proposed implementation method for the project. The immediate phases are integral to the short term critical requirements for construction of a new Maria Island ferry terminal and visitor information centre to cater for current demand which has exceeded the capacity of the existing port both due to the larger ferries operating as well increased demand and impact on traffic management and parking within the port combined with commercial and recreational vessel activities.

The project has potential for increased program, subject to funding commitments and demand as well as opportunity for funding through public land sales as part of the land development through Phase 1 of the project already completed as well as private investment income through new leases for buildings, hardstands and marine facilities.

The Phase 1 was implemented by GSBC through standard local government procurement guidelines with construction packages developed for stages and specific components of works including:

- Marina berth and servicing tender packages (2 packages of works);
- Dredging and reclamation packages;
- Boat ramp demolition and reconstruction;
- Wharf extension; and
- Fuel supply and servicing Eol.

A similar approach will be adopted for the implementation covering packages of works associated with the intended stages or grouped stages of works.

During the detailed business phase the proposed phases and stages will be further developed incorporating:

Project initiation:

- Investigations, business case and approvals;

Project planning:

- Engineering design and specifications;
- Cost controls and funding;
- Development of detailed programs and milestones;
- Procurement packages;

Project execution:

- Purchase of materials;
- Construction of packages;
- Coordination of private investment;

Project controls and monitoring:

- Quality assurance and cost control monitoring;
- Program monitoring;



- Risk monitoring;
- Demand monitoring;
- Project close out:
 - Review and close out;
 - Contract completion;
 - Operational handover;
 - Maintenance and management plans; and
 - Evaluate performance and improvement.



2.4 **Timeframes**

The proposed staging for development is summarised in the following timeline. A detailed program incorporating tasks, milestones, links, predecessors and sub tasks will be developed on approval of the detailed business case.

PHASE	STAGE	2018	2019	2020	2021	2022	2023	2024	2025
0	Business Case & Approvals	\iff							
	Investigations & studies								
	Concept development								
	Consultation								
	Business case & financial analysis								
	Approvals								
2	Port Entrance	<u> </u>		\Rightarrow					
	2.0 – engineering & procurement								
	2.1 – entrance realignment								
	2.2 – marine servicing								
	2.3 – ferry terminal								
3	Commercial Precinct								\Rightarrow
	3.0 – engineering & procurement								·
	3.4 – channel dredging								
	3.5 – land reclamation								
	3.6 – commercial wharf								
	3.7 – new berths								
4	Outer Harbour						_		\Rightarrow
	4.0 – engineering & procurement						1		
	4.8 – outer marina								



2.5 **Budget Estimates**

The development of the master plan incorporates expansion on the works recently completed in Phase 1 of the master plan. The project budget estimates have made use of the estimated and actual costs for those port expansion works recently completed which included similar infrastructure consistent with the works proposed in the master plan such as:

- Dredging and reclamation:
- Seawall construction;
- Marina berth and servicing;
- Roads and car parking;
- Wharf construction; and
- Ferry pontoon.

The development of the budget estimates includes all engineering, project management, quantities and contingencies associated with each stage of the development and are based on 2018 rates.

SUMMARY PROJECT BUDGET	TOTAL ex GST
1. Preliminaries - concept, investigations, approvals and business case	155,000.00
2. Stage 1 - channel entrance	259,000.00
3. Stage 2 - reclamation zone & marine services	1,966,000.00
4. Stage 3 - ferry terminal	2,033,000.00
5. Stage 4 - channel dredging	1,048,000.00
6. Stage 5 - reclamation, road and base formation	2,785,000.00
7. Stage 6 - commercial wharf precinct	2,438,000.00
8. Stage 7 - commercial & recreational berths	3,842,000.00
9. Stage 8 - private marina and landside buildings	5,503,000.00
TOTAL PROJECT COSTS (ex GST)	\$20,029,000.00

The development staging can be adjusted to suit demand with key sequencing extending from the phases out from the existing port.

2.6 **Regulatory Approvals**

The approvals for the works will incorporate two phase permit process:

- Phase 1 Crown Land Services permits for consent and works approval for seabed and Crown Land areas of development; and
- Phase 2 Regulatory permits through Glamorgan Spring Bay Council under the Tasmanian Interim Planning Scheme.

2.6.1 **Crown Land Services:**

Initial consultation with CLS has been completed relating to the internal port construction works associated with seabed works, marina infrastructure, dredging and reclamation. The wider master plan includes an expanded area with similar applications and usages for the proposed development.



CLS has provided initial support for the development and assistance with the development of boundaries around the seabed areas as well as formation of new land and titles for such development to allow for public and private infrastructure investment.

2.6.2 **Council Approvals**

Phase 1 of the master plan was approved by council in 2012. This approval process included site studies and investigations within and adjacent to the port including:

- Extensive marine and sediment mapping for areas impacted by dredging, reclamation and marine infrastructure;
- Geotechnical investigations of seabed and ground conditions for both dredge and piling:
- Detailed surveys of seabed levels both within port and entrance including on going mapping;
- Hydrology and river flows for adjacent waterways;
- Environmental impact assessments associated with the development including preparation of construction environmental management plans and operational and environmental management plans;
- Preparation of dredge management plans; and
- Coastal impact assessments.

The above base information can be utilised to assist with the preparation of the Development Application as well added localised assessments required for the expanded for infrastructure areas.

A Development Application would be undertaken for the proposed master plan indicating the intended phases of works. The landside reclamation is proposed to be developed to incorporated preparation of land parcels for additional stages that may incorporated public or private or both investment scenarios.

As the proponent for the initial Phase 1 works, GSBC has track record for meeting all statutory and regulatory approvals for initial phase of the master plan.

2.7 **Procurement Plan**

A project manager will be engaged for the initial site investigations, business case and approvals to assist GSBC with requesting quotation and engagement of consultants.

The detailed investigations, engineering, consultation and approvals process will assist in development and refinement of the proposed development staging and program.

During the detailed business case a procurement plan will be developed identifying:

- Contract commencement dates:
- Contract staging;
- Procurement timetable:
- Number of contract packages;
- Contract terms;
- Funding arrangements for contracts;
- Approval to proceed conditions;
- Local policy purchase agreement and local content;
- Tender package formats and specifications;
- Tender evaluation process and qualifications;



- · Contract management; and
- Risk management and risk register approaches.

As noted in the implementation plan the stages of works will be grouped into packages of like infrastructure or construction fields and tendered in accordance with GSBCs legislative procurement requirements.

This would include the following:

- Tendering packages:
 - Dredging and reclamation of entrance channel, ferry terminal and marine servicing area;
 - Construction of reclamation seawalls;
 - Roads and site services:
 - Marina berths and services;
 - Wharf precinct;
 - Buildings; and
 - Land or combined land and marine areas for lease or sale.

2.8 **Risk Management Plan**

A project risk assessment was undertaken and implemented in Phase 1 of the SBM with the redevelopment of the Triabunna Port and hence the investment of earlier site investigations, approvals processes, engineering, project management, construction and actual project costings provides a significant basis for the assessment of risks for the expanded development.

As part of the master plan preparation the following risk assessment outcomes were identified:

- Commercial:
 - Increased cost or cost over-run;
 - Reduced demand on berths;
 - Slow implementation of land development;
- OH&S including:
 - safety within marine users;
 - safety of public around commercial wharf handling and public roads adjacent to ferry terminal, wharf and marina areas:
 - safety of construction workers and activities during works;
- Environmental and regulatory:
 - Environmental damage due to construction;
 - Environmental impact due to project;
 - Regulatory permits not achieved;
- Public:
 - Loss of tourism;
 - Lack of public amenity;
 - Loss of public access.



During the project initiation phase a detailed risk management plan will be developed to provide a management framework to ensure that levels of risks and uncertainty are properly identified and managed for the project as well as ongoing through the project.

This be achieved by defining:

- Process for identifying, analyse and evaluating risks;
- How risk mitigation strategies will be developed;
- How often risks will be reviewed;
- Roles and responsibilities;
- Reporting processes; and
- Detailed Risk Register containing all risks identified for the project, gradings, mitigation strategies to reduce the likelihood and risk revaluation.

Assess Risk Management Manage

Figure 3 **Risk Management Matrix**

2.9 **Evaluation Plan**

An evaluation committee will be developed for the project including key stakeholders, GSBC and the project manager for the works. The evaluation committee will responsible for outlining in the initial phases of the project the objectives, outcomes performance measure, data sources for measurement and responsibility for implementation of the evaluation plan.

The evaluation plan will encompass the stages of construction and include:

Investigations;



- Engineering and design;
- Construction; and
- Close for operations.