

DOLPHIN SANDS AREA
SUB-MUNICIPAL
EMERGENCY MANAGEMENT PLAN

VERSION 1.0



GLAMORGAN SPRING BAY COUNCIL

1st NOVEMBER 2011

EMERGENCY NOTIFICATION GLAMORGAN SPRING BAY EMERGENCY CONTACT NUMBERS

POLICE	Call 000 And request the agency you require
FIRE	
AMBULANCE	
Support Agencies and Local Contacts	Telephone Number
State Emergency Service	6230 2700
Tasmania Fire Service	000
Firecomm (State Communications Centre)	6230 8420
Freycinet National Park Visitor Centre	6256 7000
Crown Land Services	6233 6413

A more detailed contact list is included in the Glamorgan Spring Bay Municipal Emergency Management Plan (GSBEMP)

DOCUMENT CONTROL STATUS

This plan has been produced and issued in accordance with the requirements of the Emergency Management Act 2006.

The issue status of this Plan is detailed in the table below and its issue is at the discretion of the Chairperson of the GSB Emergency Management Committee.

Upon review of the Plan by the GSB Emergency Management Committee at intervals not exceeding two years the Committee shall seek and take account of all suggested amendments provided by relevant stakeholders. The plan is to be re-issued in full, upon confirmation by the State Controller of Emergency Services, to all Plan holders in accordance with the Distribution List.

Any suggested amendments should be sent to the GSB Municipal Co-ordinator at the address detailed below:

Municipal Co-ordinator
Glamorgan Spring Bay Council
P.O. Box 6
TRIABUNNA
TASMANIA 7190

Minor amendments made prior to a full review of the Plan will be distributed along with a copy of this Document Control Sheet.

Issue Status	Date of Issue	Comments
Issue 1	1 November 2011	1.0 - First Issue
Issue 2		
Issue 3		
Issue 4		
Issue 5		
Issue 6		
Issue 7		
Issue 8		
Issue 9		
Issue 10		

FOREWORD

As the municipal authority, Glamorgan Spring Bay Council (GSBC) recognises its obligations to ensure the safety of residents, visitors and businesses in the Dolphin Sands and surrounding area. To address these obligations in the most effective manner a sub-municipal emergency management plan needs to be developed, implemented and tested.

There is a legislated requirement for GSBC to plan for and provide support to its residents and to response agencies during emergency situations.

Appropriate planning for these events is essential to ensure that any response is consistent with legislative responsibilities; that adequate information is provided to the community; that the response to the event is coordinated; and that the remainder of the municipality can continue to function with minimal disruption.

GSBC is committed to meeting its responsibilities to plan for emergencies in its municipality and in doing so, has prepared and implemented the Glamorgan Spring Bay Municipal Emergency Management Plan.

This Sub-Municipal Emergency Management Plan targets the specific areas of Dolphin Sands, Cambria Drive, Swan River Rd and their surrounds and compliments the existing Municipal, Regional and State Emergency Management Planning frameworks.

Approvals

This Emergency Management Plan for the Dolphin Sands area has been prepared by Brian Hevey of Handa Solutions Pty Ltd for Glamorgan Spring Bay Council.

This plan is approved by:

Council Manager
Glamorgan Spring Bay Council

Date: 1 November 2011



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GLOSSARY OF EMERGENCY MANAGEMENT TERMS

Emergency

An event, actual or imminent, which endangers or threatens to endanger life, property or the environment, and which requires a significant and coordinated response.

Hazard

A source of potential harm or a situation with a potential to cause loss.

Mitigation

Measures taken in advance of, or after, a disaster aimed at decreasing or eliminating its impact on society and the environment.

Natural Disaster

A natural disaster is a serious disruption to a community or region caused by the impact of a naturally occurring rapid onset event that threatens or causes death, injury or damage to property or the environment; and, which requires significant and coordinated multi-agency and community response. Such serious disruption can be caused by any one, or a combination, of the following natural hazards: bushfire; earthquake; flood; storm; cyclone; storm surge; landslide; tsunami; meteorite strike; or tornado.

Preparedness

Arrangements that ensure that, should an emergency occur, all those resources and services which are needed to cope with the effects can be efficiently mobilised and deployed.

Prevention/Mitigation

Regulatory and physical measures to ensure that emergencies are prevented, or their effects mitigated.

Public Awareness

The process of informing the community as to the nature of the hazard and actions needed to save lives and property prior to and in the event of disaster.

Recovery

The coordinated process of supporting emergency-affected communities in the reconstruction of the physical infrastructure and restoration of emotional, social, economic and physical well-being.

Relief

The provision of immediate shelter, life support and human needs of persons affected by, or responding to, an emergency. It includes the establishment, management and provision of services to emergency relief or recovery centres.

Resilience

A measure of how quickly a community can recover from an emergency event.

Response

Actions taken in anticipation of, during, and immediately after an emergency to ensure that its effects are minimised.

Risk

A concept used to describe the likelihood of harmful consequences arising from the interaction of hazards, communities and the environment.

Risk Assessment

The process used to determine risk management priorities by evaluating and comparing the level of risk against predetermined standards, target risk levels or other criteria.

Risk Management

The systematic application of management policies, procedures and practices to the tasks of identifying, analysing, evaluating, treating and monitoring risk.

Vulnerability

The degree of susceptibility and resilience of the community and environment to hazards.

ACRONYMS USED IN THIS PLAN

AT	Ambulance Tasmania
BoM	Bureau of Meteorology
DHHS	Department of Health and Human Services
DIER	Department of Infrastructure, Energy and Resources
DMC	Deputy Municipal Coordinator
DPEM	Department of Police and Emergency Management
DPIPWE	Department of Primary Industries, Parks, Water and the Environment
DSAEMP	Dolphin Sands Area Emergency Management Plan
DSAEMPC	Dolphin Sands Area Emergency Management Planning Committee
DSRA	Dolphin Sands Ratepayers Association
ECC	Emergency Coordination Centre
EMA	Emergency Management Australia
EMP	Emergency Management Plan
EOC	Emergency Operations Centre
ERM	Emergency Risk Management
GSB	Glamorgan Spring Bay
GSBC	Glamorgan Spring Bay Council
GSBEMC	Glamorgan Spring Bay Emergency Management Committee
LGAT	Local Government Association of Tasmania
MAST	Marine and Safety Tasmania
MC	Municipal Coordinator
MCRC	Municipal Community Recovery Coordinator
MECC	Municipal Emergency Coordination Centre
NMOSC	National Marine Oil Spill Contingency Plan.
PPRR	Prevention & Mitigation, Preparedness, Response and Recovery
PWS	Parks and Wildlife Service
RCRC	Regional Community Recovery Coordinator
RECC	Regional Emergency Coordination Centre
REMC	Region Emergency Management Committee
SCRC	State Community Recovery Coordinator
SEMC	State Emergency Management Committee
SES	State Emergency Service
SIT REP	Situation Report
SOP	Standard Operating Procedure
TASPOL	Tasmania Police Service
TFS	Tasmania Fire Service
TEMP	Tasmanian Emergency Management Plan
TRRA	Tasmanian Relief and Recovery Arrangements
WST	Workplace Standards Tasmania

INTRODUCTION

Short Title

The Short Title of this plan is the DSAEMP

Authority

This plan has been developed by the Dolphin Sands Area Emergency Management Planning Committee (DSAEMPC) in accordance with the requirements of the Emergency Management Act 2006.

Purpose

The purpose of this plan is to provide a framework that identifies realistic preventative measures that can be programmed to eliminate or minimise risks and to ensure a timely and appropriate response to, and recovery from, emergency events occurring in or threatening Dolphin Sands and surrounding areas.

Scope

This Plan is restricted to consideration of those risks and emergency events, which are created by hazards within the Dolphin Sands, Great Oyster Bay Estate and Swan River Road Communities, as identified by members of the DSAEMPC.

DOLPHIN SANDS AREA EMERGENCY MANAGEMENT PLANNING COMMITTEE

Section 20 of the Emergency Management Act 2006 provides for the establishment of the DSAEMPC which has the powers and functions as specified in section 22. The Committee has been established to coordinate the activities identified in council's emergency management strategy.

The DSAEMPC consists of:

- GSB Municipal Co-ordinator
- GSB Deputy Municipal Co-ordinator
- GSB SES Unit Manager
- District Officer (East Coast) Tasmania Fire Service
- Brigade Chief Swansea Brigade
- Representative of Tasmania Police
- SES Regional Manager (South)
- GSBC Recovery Coordinator
- GSBC Natural Resource Management (NRM) Committee representative
- Dolphin Sands Ratepayers Association representative
- An Emergency Management Consultant; and
- Other members as determined by the committee

The DSAEMPC is responsible for the preparation of the Dolphin Sands Area Emergency Management Plan for consideration and endorsement by the Glamorgan Spring Bay Council (GSBC).

The DSAEMP details the following:

- The GSBC emergency management strategy
- Emergency risk management processes
- Emergency management structures and responsibilities which identify response
- Community recovery operational arrangements
- Operational management structures
- Management review and skill maintenance programs
- Specific procedures for particular hazards (as required)
- Administrative arrangements

Once this plan is authorised and implemented the GSBEMC is to review, validate and amend the DSAEMP in accordance with the existing GSBEMP. The Emergency Management Act 2006 requires that a review be conducted at periods not exceeding two years and that the reviewed plan be submitted to the Regional Emergency Management Committee for approval by the State Controller of Emergency Services.

The review process should include post-emergency analysis to determine the effectiveness of the EMP and to identify lessons learned during the emergency event.

In the first instance, managing a response to emergencies within the municipal area is the responsibility of statutory emergency services, as identified in the GSBEMP. The GSBEMC should only support such actions as requested by organisations involved in response and recovery operations.

Objectives of the Dolphin Sands Area EMP

The objectives of this emergency management plan are to:

- Identify the hazards and the risks that directly affect Dolphin Sands and surrounding areas
- Identify a range of treatment options to lessen the likelihood and/or consequences of emergency events through the implementation of planned prevention/mitigation strategies
- Improve the community's resilience to emergencies by providing guidance and support to landowners before, during and after an emergency event
- Increase community awareness and involvement in emergency management
- Minimise the consequences of emergency events in the area
- Contribute to the management of emergency events
- Identify roles and responsibilities of GSBC staff for emergencies in the area
- Integrate with existing Municipal, Regional and State arrangements.

Business continuity is not specifically considered within this Plan. Whilst an emergency will have an impact on the business of Council and the community, this Plan focuses on the management and resource requirements to mitigate or reduce the likelihood and manage the consequences of emergency events.

The GSBEMP and other documents should address the specific aspects of maintaining Council business.

Related Documents and Plans

This Plan is designed to identify the actions and responsibilities of the GSBC in relation to emergencies in this area. Other documents that inter-relate include:

- Tasmanian Emergency Management Plan
- Southern Region Emergency Management Plan
- Glamorgan Spring Bay Emergency Management Plan
- Tasmanian Fire Service Procedures
- Tasmanian Police Standing Orders and Procedures

Scheduled reviews

This plan will be reviewed, updated and approved by the GSBEMC annually as part of the GSBEMP review schedule.

Availability

The current version of this plan will be held in the Council Office with copies distributed to local control and support agencies as appropriate. This Emergency Management Plan will be available on GSBC and SES websites.

Skills Maintenance, Training and Exercises

In accordance with the GSBEMP, GSBC commits to conducting regular activities to ensure that Council's staff, response agencies and community groups are aware of current EM plans and procedures and have the skills to implement them.

The GSBEMC will sponsor annual validation activities to ensure the EM capability is maintained for this Plan and the municipal EMP. These activities may take the form of training sessions, tutorial exercise or field exercises.

Debriefing procedures

Immediately following an emergency event, specific issues will invariably require investigation and discussion will begin to focus on the need for change, and to learn from the experience. All such matters are best considered, in the first instance, in a forum referred to as an Operational Debrief. As part of operational debriefing, this plan its mitigation, preparedness and response strategies need to be considered.

The main objectives of an Operational Debrief are to:

- Acknowledge the input of all contributing organisations and individuals;
- Acquire constructive feedback from all involved on lessons learned;
- Identify where gaps exist in training and planning systems;
- Determine and program the best course of actions forward improving planning systems etc;
- Foster sound inter agency communication; and
- Identify a need for specific investigation of issues and further debriefing on an individual or organisational level.

Plan Activation

The Plan can be activated in the event of an emergency by any of the following key personnel:

Regional Disaster Controller;
General Manager GSBC;
GSB Municipal Co-ordinator; or
SES Regional Manager (South)

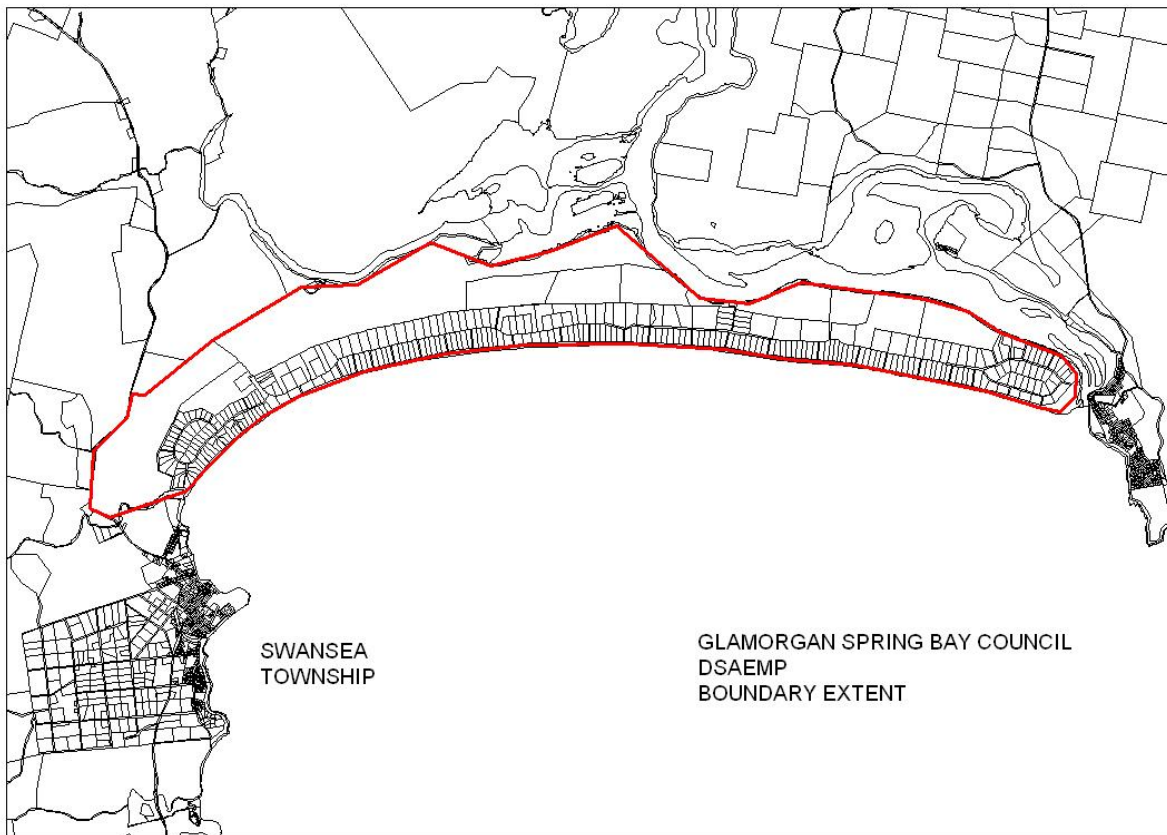
DESCRIPTION OF AREA

The geographical area covered by this plan includes the subdivisions of Dolphin Sands, Great Oyster Bay Estate (Cambria Drive), Swan River Rd and surrounding land bounded by Tasman Hwy, Swan River, Nine Mile Beach, the property “Cambria” and Meredith River.

The plan covers an area of around 950 hectares.

Topography in these areas varies from river flats, beaches, lightly wooded forest, coastal health and pasture.

The image below outlines the precise area covered by this plan.



The entire area is accessed by Swan River Rd leading from the Tasman Hwy approximately four kms North of Swansea. Dolphin Sands Rd leads off 1.4 kms along Swan River Rd heading east and Cambria Drive, in turn, leads southwest off Dolphin Sands Rd. There are other minor roads, numerous driveways, tracks and beach accesses making up the vehicular access network. Visitors to the area can also arrive by boat or light aircraft.

Within the area there are many physical assets including permanent residents, holiday homes and shacks, vacant allotments, farmland, private reserves, a public toilet, roads, car parks, a private airstrip, boat ramps, small bridges and walking tracks.

There is minimal infrastructure located within the area – limited to underground telephone cables and overhead electricity lines and poles. Properties collect rainwater or purchase water for their potable water supplies and use septic tanks or similar self-contained sewage systems for effluent treatment and disposal. Most properties access irrigation water from the underground aquifer using bore pumps connected to submerged spears.

Commercial enterprises consist of a shellfish farm with its land base at the river end of Yellow Sandbanks Rd and there is some anecdotal evidence of properties used as 'Bed and Breakfast' or short-term rental accommodation.

Population

The Dolphin Sands Subdivision consists of 300 land allotments with approximately 75 developed with permanent residences and a further 120 containing holiday homes, shacks or temporary accommodation. The remaining 100 remain as undeveloped blocks. The seasonal holiday nature of the area means the population can increase at peak times to an estimated maximum of 750 people.

Great Oyster Bay Estate (Cambria Drive) was a subdivision established in the mid 1990s consisting of approximately 75 allotments, several of which now have permanent residences built. The maximum expected population in this subdivision during peak occupancy time is 250.

On Swan River Rd, terminating at the Swan River boat ramp, there are a few residences and shacks surrounded by farmland. Overnight campers occasionally stay near the boat ramp.

The entire area is popular for sightseeing, swimming, boating and fishing.

Camping areas

Camping occurs at Bagot Pt, where there is a public toilet. Unauthorised camping is known to occur elsewhere at the Swan River boat ramp, on vacant allotments, in car parks and on little-used tracks and driveways. High visitor numbers occur during peak holiday periods, typically over summer, and Bagot Pt campground can accommodate 25-30 campsites and up to 150 people.

Road Infrastructure

The area is serviced by a single, narrow sealed road branching to Dolphin Sands, Cambria Drive and the Swan River. Minor roads and walking trails throughout the area provide some access for relocation, firefighting and patrolling but many are sandy, restricting reliable vehicle movement. Driveways tend to be narrow and provide adequate

access for cars and pedestrians although they create limitations for the manoeuvring of larger emergency vehicles. Within the subdivisions allowance was made for access to Nine Mile Beach every 4-5 lots however these are not cleared or well maintained on the whole. There are no designated fire trails. The greatest concern within the community is the single road access and escape route.

Aircraft Access

Light, fixed-wing aircraft have access to a private airstrip on Cambria property and helicopter access and landing potential is generally considered good.

Dangerous Goods

There are no significant stores of dangerous goods in the area. Gas and fuel trucks make occasional deliveries. Individual properties may store small quantities of dangerous goods and/fuels in outbuildings.

Topography

The Dolphin Sands peninsula is typically less than 5 metres above sea level with most spot elevations indicating heights of 3 – 6 metres and a few dunes reaching 13-14 metres. The low hills near Swan River don't exceed 20 metres. The Great Oyster Bay Estate is all low-lying with a maximum elevation of 3 metres. The topography of the area is flat to gently undulating. The soil is, predominantly, sand. The area was aerial seeded after subdivision to assist in dune stabilisation.

Flora and fauna

The Dolphin Sands area encompasses a range of different vegetation types and communities. The Great Oyster Bay Estate end contains a significant remnant of a Coastal White Gum (*Eucalyptus viminalis*) vegetation community with a shrub and heath under-storey. Much of this vegetation is protected by way of a covenant placed on all titles within this estate by the developer. There are also large areas of White Gum (*Eucalyptus viminalis*) / Blue Gum (*Eucalyptus globulus*) coastal forest and woodland further along the spit on the northern side. This vegetation community is listed as threatened under the Nature Conservation Act 2002 and in a number of areas is protected by way of Conservation Covenants on property titles.

There is also a mixture of coastal scrub and heath-lands all along the spit, these include large expanses of coastal dune area particularly on the southern side of the spit which was aerial seeded with a non local provenance variety of Coast Wattle (*Acacia longifolia* subspecies *sophorae*) back in the 1970's. This plant is mistakenly called Boobialla, which is the official common name for a completely different plant called *Myoporum insulare*, which also occurs in the area but is much less abundant (GSBC, 2010: *Biodiversity Fact Sheet No. 1*).

The Dolphin Sands area, like many other areas on the Tasmanian east coast, is well known to contain different threatened flora and fauna species which are protected under various state and national legislation.

All of the vegetation communities within the area, as is the case with most Australian native plants which are highly adapted to fire, can be highly flammable in the right conditions. The coastal reserve and some adjoining properties along the Moulting Lagoon side of the spit also have large infestations of Gorse, *Ulex europeaus*. Gorse is a Declared Weed under the Tasmanian Weed Management Act 1999 and is highly flammable.

Management of vegetation on private property for fire needs to be conducted in accordance with the *Guidelines for developing in bushfire prone areas*, produced by TFS. Along with the strategic approach outlined in this publication, an understanding of the different vegetation types is important as it should influence emergency risk management activities due to both the ecological characteristics of the different vegetation types and legislative requirements which may require approval prior to removal.

Weather

The area's weather is best described as dry. Average rainfall is 594 mm per annum. Wind speeds have reached 100 km/h and winds predominantly approach from the Northwest. Mean minimum temperatures range from 4 degrees C in winter to 11 degrees C in summer. Mean maximum temperatures in the area range from 13 degrees C in winter to 22 degrees C in summer. The maximum temperature recorded for the area is 40 degrees, although this reading was rare. During the 'fire season' between November and March maximum daytime temperatures average 22 degrees C and can occasionally exceed 30 degrees.

History of Emergencies

In the Dolphin Sands and surrounding area there have been emergency events including bushfires, structural fire and storm. Minor flooding has been reported and a few minor vehicle accidents. Coastal erosion exists and there have been tsunami alerts issued for the East Coast of Tasmania, although nothing of significance has eventuated. Services failures (electricity and telephone) have occurred but are normally rectified within 24 hours without any noticeable effect to the broader community.

The emergency event of greatest concern to this community is bushfire. The sources of risk include vegetation density, fire-favourable weather conditions, seasonal population influx and limited access and escape routes.

Specific areas at risk

In the event of a bushfire or other emergency, the entire Dolphin Sands peninsula can be isolated with the only escape road, Dolphin Sands Rd, either threatened by fire, obscured by smoke or being utilised by responding emergency vehicles. Fire events in recent years have highlighted this concern.

Other issues in Dolphin Sands include:

- Unclear fire prevention responsibilities
- Some landowners may be unaware or unwilling to manage vegetation according to current guidelines
- Confusion for response agencies between lot numbers, rural address numbers, property names and unidentified lots
- The type and density of vegetation in the area
- Easily accessible firefighting freshwater supplies are limited
- Coastal inundation
- Sand dune instability.

Oyster Bay Estate, although accessed from Dolphin Sands Rd has sparser vegetation, more developed allotments and a greater number of escape routes including the Cambria

airstrip road, which provides reasonable all-weather access from the middle of Cambria Drive back to Swan River Rd near the junction with Tasman Hwy.

Swan River Rd and the Swan River boat ramp area are also accessed by a single road but escape from and access to the area can be gained through neighbouring fields and trails. The very small population could be easily assembled and protected from fire at the boat ramp car park.

Aquifer

An 'unconfined aquifer' underlies the majority of the Nine Mile Beach spit. An unconfined aquifer exists in materials (such as sand) which may enable the water table to be in contact with air at atmospheric pressure. It is, therefore, possible for the aquifer to be 'recharged' by rainwater. In many cases an aquifer is the primary source of potable water or is used as a supplementary water supply in conjunction with water tanks.

Water in sands, like those at Nine Mile Beach spit, are reliable aquifers with good storage capabilities.

In 2007 DPIPWE installed a groundwater monitoring network consisting of six shallow bores along the length of Nine Mile Beach, The primary purpose of the monitoring network is to provide data on the water level within the aquifer and an indication of basic water quality.

Under present conditions it is considered that there are no management issues for the aquifer and that it is being used sustainably. Ongoing monitoring and review by DPIPWE in partnership with the Dolphin Sands Ratepayers Association (DSRA) and other stakeholders is important to ensure the sustainability of the aquifer into the future.

Direct extraction of water from the aquifer is not sufficient for effective firefighting operations; however the water may be pumped and stored in tanks for fighting fires and filling fire trucks.

EMERGENCY MANAGEMENT

An emergency is defined as an actual occurrence or imminent occurrence of an event which in any way endangers or threatens the safety or health of any person in Tasmania or which threatens to destroy or damage any property, the environment or part of the environment.

Responsibilities relating to council obligations; the duty of care to employees and residents; safety of people; and the planning for, responding to and recovering from emergencies are specified in numerous Acts and Regulations including:

Emergency Management Act (2006)
Fire Service Act (1979)
Workplace Health and Safety Act (1995)
Pollution of Waters by Oil and Noxious Substances Act (1987)
Public Health Act (1997)
National Parks and Reserves Management Act (2002)

To address GSBC responsibilities, the four stages of Emergency Management – prevention/mitigation, preparedness, response and recovery (PPRR) have been considered. This Plan covers the arrangements for each of these stages.

Prevention/Mitigation

Prevention strategies will be identified to attempt to prevent risks or alternatively reduce risks to a more acceptable level that can be prepared for and responded to. Existing prevention activities, fire management plans and municipal and State EMP's shall be incorporated into this Plan.

Preparedness

Preparedness activities will be identified to manage likely events that are unable to be prevented. These include pre-incident plans for general and specific events. Links with other agencies will be incorporated in the preparedness planning function and plans will be tested annually through exercises, meetings and/or workshops.

Response

Response will be based on legislative expectations and existing operational support arrangements. An emergency management structure will be activated from the commencement of a confirmed event until conclusion.

Recovery

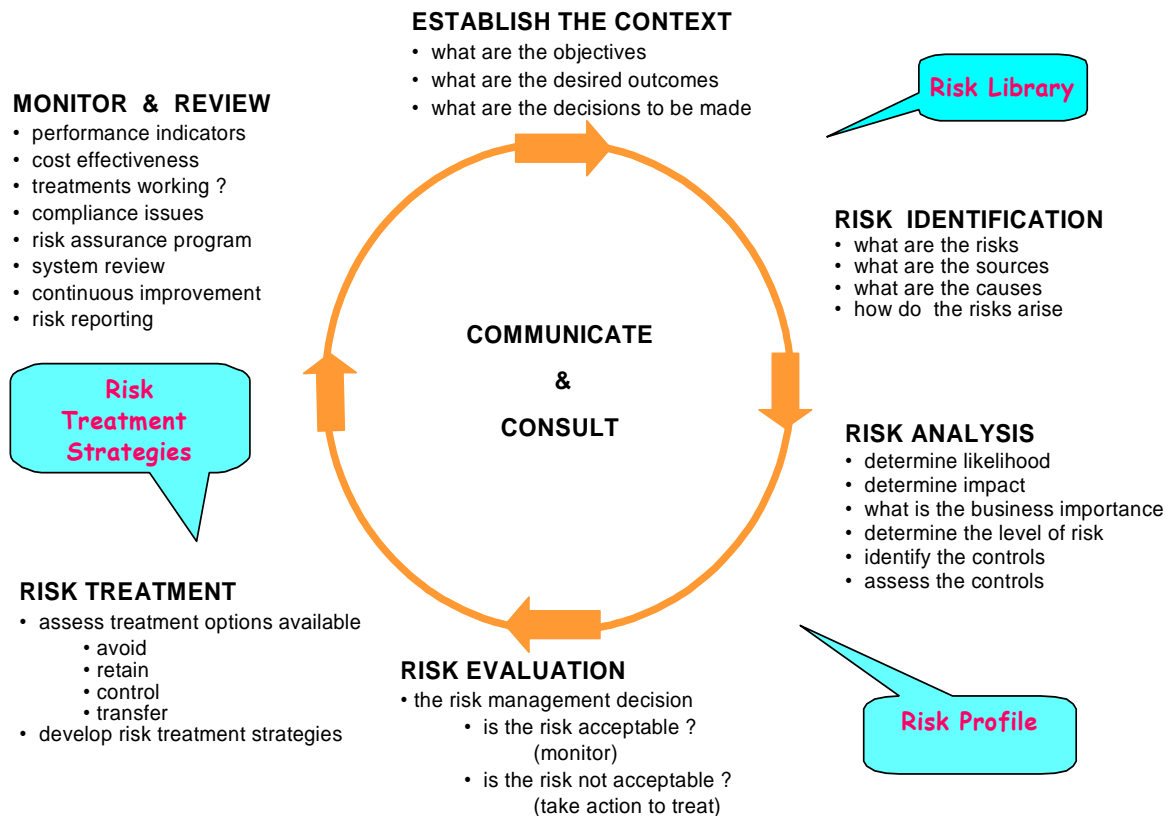
Recovery will be a planned stage following the emergency response phase and will address human, asset, community and environmental rehabilitation issues.

EMERGENCY RISK MANAGEMENT

Risk Management Principles

The risk management principles used in this EMP are based on the national Emergency Management Australia model, based in turn on the Australian Standard 4360. The diagram below illustrates the process undertaken and is followed by a Library of risks identified and agreed to by the DSAEMPC.

Risk Management Process



RISK LIBRARY

The list below indicates the risks identified through consultation with landowners, business operators and the Emergency Management Planning Group.

Risk	Elements at risk	Sources of risk
BUSHFIRE	People Property Infrastructure Environment Cultural heritage sites	Escaped structural fire Road accident Gas/fuel tanker crash Escaped burn-off Escaped camp fire 'Hot work' (welding, etc) Accidental fire Malicious fire
AQUIFER CONTAMINATION	People Environment	Contamination from fuel or chemical spill Septic tank outflows Salt water contamination
SEVERE WEATHER EVENT (Storm or high winds)	People Property Environment Infrastructure	High winds Storm
SERVICES FAILURE	People Infrastructure	Vehicle crash Severe weather/wind Fire Flooding Communications failure Utilities failure
FLOOD	People Property Infrastructure	Swan River Meredith River
COASTAL EROSION	People Property Environment Infrastructure	Sea surge Storm Tsunami Sea level rise
MARINE POLLUTION/ACCIDENT	Coastal environment Marine life Shore birds Property Aquifer	Cruise ship accident Maritime accident Oil spill in or near Great Oyster Bay

RISK ASSESSMENT

As part of the analysis of each risk, a Risk Assessment has been conducted taking into account the Likelihood of an incident occurring, the Consequences of an incident occurring and then the Level of Risk to the area. From this analysis, Risk Treatment Strategies have been developed for the emergency events listed in the Emergency Risk Library, above.

DOLPHIN SANDS AREA RISK ASSESSMENT

Risk	Elements at Risk	Likelihood	Consequence	Level of Risk	Acceptance	Action Required	Treatment Options	Issue or Criteria	Suggested treatment strategies for: Prevention & Mitigation	Responsibility	Implementation Timeframe
BUSHFIRE	People Property Environment Infrastructure Cultural heritage sites	Almost Certain	Major	Extreme	No	Yes	Fire hazard reduction by slashing and/or burning off public and private properties in accordance with TFS <i>Guidelines for developing in bushfire prone areas</i> and other relevant legislation	Controlled burning and fuel clearing acceptance by residents	Hazard reduction of GSBC managed land	GSBC	Annual – Spring
								Appropriate disposal of cut vegetation	Maintaining and clearing roadsides and likely fire containment lines	GSBC	Winter/Spring
									Fuel reduction of private land and cleared boundaries to create defensible space	Landowner	Annual – Spring
							Fire abatement notices issued to owners not adhering to TFS Guidelines in accordance with legislation and council by-laws	Policing by GSBC	Inspect properties and determine abatement needs	GSBC	Annual – Spring & Summer
								'Do and charge' by GSBC. Absentee ownership	GSBC to issue abatement notices to landowners	GSBC	Annual – Spring & Summer
									GSBC to undertake clearing and fuel reduction and recover cost from landowners	GSBC (Contractors or local brigades)	Annual – Spring & Summer
							Providing and maintaining accesses for firefighting and water access	Regular patrolling and reporting. GSBC additional workload. Consultation	Identify and record strategic fire trails, accesses and water sources	TFS District and GSBC	6 months
									Reinstate fire trails, containment lines and beach accesses	GSBC TFS Landowners	18 months
							Contacting all property owners regarding fire safety responsibilities, fire-safe building design and cleared and defensible areas, etc	Some interstate and overseas ownership. Monitoring effect over time	Provide fire safety information (eg. Rates notices, flyers) detailing the needs of the environment, responsibilities of ownership, building design, clearing defensible areas, etc	TFS GSBC (DSRA may assist)	Targeted every Spring Ongoing opportunities
									Providing on-site advice	TFS District	Ongoing
'Part 5' agreements with landowners	GSBC	As needed									

Risk	Elements at Risk	Likelihood	Consequence	Level of Risk	Acceptance	Action Required	Treatment Options	Issue or Criteria	Suggested treatment strategies for: Prevention & Mitigation (continued)	Responsibility	Implementation Timeframe
BUSHFIRE (continued)	People Property Environment Infrastructure Cultural heritage sites	Almost Certain	Major	Extreme	No	Yes	Assist and support landowners preparing property fire management plans	Consistent message by GSBC and TFS	Included in strategy above	TFS District GSBC	Ongoing
							Increasing community fire awareness	Identifying best method of communication	Included in strategy above	TFS District GSBC	Ongoing
							Enforcement of planning and development requirements	Funding and resourcing GSBC	Property inspections conducted to ensure compliance	GSBC	18 months
									Issue notices to non-compliant owners	GSBC	ASAP
							Fire management plans approved by TFS for new developments	Not retrospective		TFS District GSBC	Ongoing
							Part 5 agreement between GSBC and landowners	Not retrospective	Issue notices to non-compliant owners	Landowners GSBC	Ongoing
							Better vegetation selection for area and fire safety	Introduction of 'low-flammability' plants	Development of vegetation and fire management plan(s) for public and private land	TFS District GSBC NRM Crown Land Services PWS	Ongoing
									Sand blow area stabilisation	Inform landowners and residents on peninsula of suitable planting options	GSBC TFS District

Risk	Elements at Risk	Likelihood	Consequence	Level of Risk	Acceptance	Action Required	Treatment Options	Issue or Criteria	Suggested treatment strategies for: Preparedness	Responsibility	Implementation Timeframe
BUSHFIRE (continued)	People Property Environment Infrastructure Cultural heritage sites	Almost Certain	Major	Extreme	No	Yes	Reinstating property Rural Address (R A) numbers	Policing maintaining visibility	Inspect existing RA numbering and remove old lot numbers	GSBC and DSRA	6 months
									Install RA numbers at property entrances & road chainages	GSBC (Contractors or local brigades)	6 months
							Community protection plan for reporting evacuees, identifying safe zones and mustering points	Establishment time during events Transient population	Inspect area and determine evacuation routes, reporting and recording centres	GSBC, TFS District and DSRA	6 months
									Design or review existing forms	GSBC, SES	6 months
									Distribute information to residents before each fire season	GSBC, TFS and SES	Each Spring
							Coordinating communication between community and agencies	Establishment time during events Interstate / overseas ownership	Review GSBEMP and communication strategies and systems	GSBC, TFS, AT, SES, Tas Police, media, medical centre, evac centre	Ongoing
									Inform community of media communication options during bushfires	TFS GSBC	Each Spring
							Annual pre-fire season abatement inspection of properties	Notifying owners as needed	Inspect and report properties annually before fire season	GSBC	Winter / Spring
							Identifying 'prepared' properties and water sources (Blue and Green Markers)	Resources required on day of fire	Inspect and report properties annually before fire season	GSBC TFS District	Each Spring
									Install markers as needed	GSBC TFS	Each Spring
							Establish TFS fire response plan for the area	Ongoing review and update	Formulate plan and circulate between agencies	TFS District	12 months
							Review existing recovery plan	Ongoing review/update	Review GSB MEMP and Regional EMP	GSBC and SES	12 months with GSBEMP
Research fuel loads on public and private land	Current status unknown	Measure and report current and predicted fuel load in area	TFS District								

Risk	Elements at Risk	Likelihood	Consequence	Level of Risk	Acceptance	Action Required	Treatment Options	Issue or Criteria	Suggested treatment strategies for: Response	Responsibility	Implementation Timeframe			
BUSHFIRE (continued)	People Property Environment Infrastructure Cultural heritage sites	Almost Certain	Major	Extreme	No	Yes	Providing timely information during emergencies	Coordination	Gather useful and timely information from responders on-the-ground	TFS Region, SES, GSBC, Evacuation centre Media	Ongoing commitment			
								Information gathering				Collate, interpret and disseminate information	SES, GSBC, TFS	Ongoing commitment
								Most effective medium						
							Responding to wildfire with existing TFS resources in locality and district	Volunteer firefighter first responders	Respond local brigade in accordance with TFS SOPs	TFS	Ongoing commitment			
								Resourcing response over time	Provide additional resources from district as determined by responding brigade needs	TFS	Ongoing commitment			
								Resourcing remaining district during an event in area	Maintain sufficient reserves for deployment elsewhere in district or region	TFS	Ongoing commitment			
							Provide community and resident support during wildfire	Instigation and funding Informing residents	Establish evacuation centre, reporting centre and/or information centre	GSBC, SES, Government agencies Support agencies	Ongoing commitment			
Residents defending 'savable' properties Prepare, Act, Survive	Fire preparedness Training Resources Only recommended if conditions are less than 'Extreme' or 'Catastrophic'	Encourage and support residents who are prepared, willing and able to fight a wildfire threatening their property	TFS Residents and neighbours	Ongoing commitment										

Risk	Elements at Risk	Likelihood	Consequence	Level of Risk	Acceptance	Action Required	Treatment Options	Issue or Criteria	Suggested treatment strategies for: Recovery	Responsibility	Implementation Timeframe
BUSHFIRE (continued)	People Property Environment Infrastructure Cultural heritage sites	Almost Certain	Major	Extreme	No	Yes	Implement recovery strategies from GSB MEMP	Reviewing Resourcing Competing priorities Funding for rehabilitation work	Implement recovery strategies for municipality	GSBC, SES, DHHS, Government support agencies Non-government support agencies	In place, included in MEMP
									Set up one or more help centres for residents and businesses affected by wildfire	GSBC, DHHS, Government support agencies Non-government support agencies	In place, included in MEMP

Risk	Elements at Risk	Likelihood	Consequence	Level of Risk	Acceptance	Action Required	Treatment Options	Issue or Criteria	Suggested treatment strategies	Responsibility for Implementation	Implementation Timeframe
MARINE POLLUTION / ACCIDENT (Determined as a cruise ship accident or other maritime accident or spill in or near Great Oyster Bay)	Marine and coastal environment Marine life Shore birds Property Aquifer	Unlikely	Major	High	No	Yes	Community notification Utilise State and GSBC Oil spill response plans Deploy dispersants at sea Shoreline clean up	Reviewing and updating plans Access and control of area during an event Deploying trained persons and resources Decontamination of wildlife Decontamination of personnel	Inform community and notify when an event occurs	Tasmania Police DPIPWE GSBC	In place, included in MEMP
								Implement the State and local oil spill response plans	DPIPWE GSBC	In place, included in MEMP	
								Locate and deploy personnel, vessels and dispersant	DPIPWE	In place, included in MEMP	
								Locate and deploy personnel and resources	DPIPWE GSBC	In place, included in MEMP	

Risk	Elements at Risk	Likelihood	Consequence	Level of Risk	Acceptance	Action Required	Treatment Options	Issue or Criteria	Suggested treatment strategies	Responsibility for Implementation	Implementation Timeframe
COASTAL EROSION (To include coastal inundation, sea surge, sea level rise, tsunami, etc)	Environment Property Cultural heritage sites	Likely	Moderate	High	No	Yes	Community education/awareness Research sand dune movement research Council planning schemes reviewed for low-lying areas and areas that may be under threat from sea surge and inundation State is reviewing community warnings and notification	Community ignorance and possible non-compliance	Provide information to community	DPIPWE	In place, included in MEMP
									Target specific properties at higher risk	DPIPWE GSBC	6 months
									Contact DPIPWE and report findings and forecast for area	DPIPWE GSBC	6-12 months
									Review existing planning scheme and incorporate research data and likely forecast	GSBC	6-12 months
									Inform 'at-risk' property owners of risk and likelihood and actions to take	Tas Police, SES	12 months
									Provide timely information if event arises	Tas Police, SES, BoM	Managed at event

Risk	Elements at Risk	Likelihood	Consequence	Level of Risk	Acceptance	Action Required	Treatment Options	Issue or Criteria	Suggested treatment strategies	Responsibility for Implementation	Implementation Timeframe
AQUIFER CONTAMINATION (To include contamination from fuel or chemical spill, septic tank outflow, salt water, etc)	People Environment	Almost certain	Minor	High	No	Yes	Community awareness of likelihood and consequences to them Planning scheme restricting use Restricting septic tank outlet placement near spear placement Aquifer to be declared a 'groundwater area' requiring plotting of spears and septic outlets requiring ongoing compliance DPIPWE monitoring of water level and quality (salts, etc) Community notification	Community ignorance and non-compliance Policing Policing new and existing spears Resourcing the plotting and monitoring	Inform community of aquifer existence, monitoring, condition and affects of contamination	DPIPWE, GSBC	Ongoing
									Inform landowners and potential owners of possible restrictions of use	GSBC	Ongoing
									Informing residents of risks associated with septic outlets near water spears	GSBC	Ongoing Included with development application
									Inspecting properties and advising residents of unsuitable installations	GSBC	12 mths
									Plot septic tank outlets and water spears and 'licence' suitable ones and address non-compliant ones	GSBC DPIPWE	12 mths, then ongoing
									Continue monitoring and report to GSBC	DPIPWE	Ongoing
									Timely notification to residents of possible aquifer contamination	DPIPWE, DHHS, GSBC	As needed
SERVICES FAILURE (Determined as electricity or telephone)	People Infrastructure	Possible	Minor	Moderate	No	Yes	Managed by Telstra, Aurora, Transend and Hydro Tasmania Community notification and information		Implement response plans	Relevant service provider	Managed during event
									Notify community of area concerned and timeframe	Relevant service provider	Managed during event

Risk	Elements at Risk	Likelihood	Consequence	Level of Risk	Acceptance	Action Required	Treatment Options	Issue or Criteria	Suggested treatment strategies	Responsibility for Implementation	Implementation Timeframe
SEVERE WEATHER EVENT (To include storm, high winds, etc)	People Property Environment Infrastructure	Almost Certain	Moderate	Extreme	No	Yes	Community awareness and 'Storm safe' program (SES) Ensuring compliance with planning scheme and building code Bureau of Meteorology warnings Establish evacuation and recovery centres	Inter-agency communication Policing new and existing buildings	Publicise awareness information and how to get information	SES BoM	Ongoing
									Inspection of existing and new buildings in accordance with building code and planning scheme	GSBC	12 mths then ongoing
									Timely notification of likely event and information regarding what to do	BoM, SES, Tas Police	When events are forecast
									Identify safe and useful locations for evacuation centres and temporary relocation venues	GSBC, SES, DHHS	Managed in MEMP
FLOOD (Determined as flooding of Swan or Apsley rivers feeding Moulting Lagoon and Great Swanport) Dam induced floods	People Property Environment Infrastructure Southern Water	Rare	Minor	Low	No	Yes	Increasing community awareness of integrated catchment management Follow Municipal Emergency Management Plan	Resourcing Funding	Publicise awareness information and how to get information	SES BoM	Ongoing
									Implement GSBEMP	GSBC, SES Tas Police Southern Water	Managed in MEMP during events

RISK RATING TABLES

The following tables are used to determine risk levels for each of the identified risks in the Risk Library. The DSAEMPC identified the most accurate Description or group of Descriptions for each risk in the Likelihood and Consequence tables. The 'worst-case' Description was then used to determine the Likelihood and Consequence Descriptors. The two Descriptor ratings were intersected in the Risk Level Matrix to assign a risk level. The resultant risk level then provides the trigger to develop treatment options that are implemented before, during and/or after an emergency event.

Likelihood Table

Descriptor	Description
Almost certain	<p>This event is expected to occur in most circumstances where the source of risk, the elements at risk and the appropriate conditions are all present.</p> <p>There is a recorded history of multiple, similar events in this area/community.</p> <p>There is strong anecdotal evidence of similar events in this or similar areas.</p> <p>There is an increased opportunity, reason, or means for the event to occur.</p> <p>There is a strong likelihood the event will recur because there are insufficient controls.</p> <p>The event is likely to occur once every year or so.</p>
Likely	<p>The event will probably occur in most circumstances where the source, elements and conditions are present.</p> <p>There are regular recorded incidents of this event in this area or community.</p> <p>There is some confirmed anecdotal evidence of similar events in this area.</p> <p>There is considerable opportunity, reason or means for the event to occur.</p> <p>Existing controls may not be adequate to prevent this event occurring.</p> <p>The event is likely to occur once in every five years.</p>
Possible	<p>The event might occur at some time where the source of risk, elements at risk and conditions are all present.</p> <p>There are few, infrequent or random recorded incidents of this or a similar event.</p> <p>There is little anecdotal evidence of similar events in this or similar areas.</p> <p>There are very few incidents in comparable communities.</p> <p>There may be some opportunity, reason or means for the event to occur.</p> <p>Existing controls should prevent this event from occurring.</p> <p>The event may occur once every 20 years or so.</p>
Unlikely	<p>This event is not expected to occur because the sources of risk are minimal.</p> <p>There have been no recorded incidents or anecdotal evidence of this event.</p> <p>There have been no recent incidents in similar communities.</p> <p>There is little opportunity, reason or means for the event to occur.</p> <p>Existing controls are expected to prevent this event from occurring.</p> <p>The event may occur once every 100 years.</p>
Rare	<p>The event may only occur in exceptional circumstances where there is a change to the sources of risk, the elements at risk or the required conditions.</p> <p>Existing controls have minimised or prevented all reasonable expectation of the event occurring and affecting the elements at risk.</p> <p>This event may be expected to occur once every 500 or more years.</p>

Consequence table

Descriptor	Description
Catastrophic	<p>The event would cause multiple fatalities</p> <p>The event would cause large numbers of severe injuries requiring medical intervention</p> <p>The event would cause extended and large numbers requiring hospitalisation</p> <p>There would be general and widespread displacement of multiple residents and/or businesses for an extended duration</p> <p>There would be an immediate and ongoing need for extensive personal support</p> <p>The event would cause extensive damage to property, infrastructure or premises</p> <p>The affected community would be unable to function without significant support</p> <p>The event would cause a significant impact or permanent damage to the environment.</p>
Major	<p>The event would result in extensive injuries to people requiring significant hospitalisation or medical treatment</p> <p>A large number of permanent residents or businesses would be displaced for more than 7 days duration</p> <p>The event would cause possible fatalities</p> <p>People affected by the event would require external resources for personal support</p> <p>The event would cause significant damage to property, infrastructure or the environment that requires external resources and time to repair</p> <p>The event would leave the community only partially functioning</p> <p>The event would result in some services and infrastructure being left unavailable</p> <p>The natural environment would be impacted with long-term effects expected</p> <p>The community, businesses or residents would suffer a significant financial loss with some financial assistance required.</p>
Moderate	<p>The event would result in no fatalities but several people would need medical treatment</p> <p>Some people injured in the event would require hospitalisation</p> <p>The event would cause some displacement of people for up to around 3-5 days</p> <p>Support for those affected by the event would be satisfied through local arrangements</p> <p>Property damage caused by the event would be rectified by routine arrangements.</p> <p>The community would still function after the event with some inconvenience.</p> <p>The event would result in some impact on the natural environment with no long-term effect; or a small impact on the environment with a long-term effect</p> <p>Businesses, residents or the community would suffer significant financial loss.</p>

Minor	<p>The event would cause no fatalities but a small number of injuries would need first aid</p> <p>The event would cause some displacement of people who return in under 48 hours</p> <p>Some personal support would be required by those affected by the event</p> <p>There would be some damage to property and infrastructure caused by the event</p> <p>The event would cause disruption to the community for up to 48 hours</p> <p>The event would cause a small impact on the environment with no lasting effects</p> <p>Some businesses, residents or the community may suffer a financial loss.</p>
Insignificant	<p>The event would not cause any fatalities or injuries requiring attention</p> <p>The event would cause no displacement of people or minimal displacement for a short duration less than 24 hours</p> <p>The event would result in little or no personal support required by affected members of the community</p> <p>The event would cause little or no damage to property, infrastructure or buildings</p> <p>There would be little or no disruption to the community as a whole</p> <p>The event would cause no measurable impact on the environment</p> <p>The event would result in little or no financial loss by any members of the community.</p>

Risk Level Matrix

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Catastrophic
Almost certain	High	High	Extreme	Extreme	Extreme
Likely	Moderate	High	High	Extreme	Extreme
Possible	Low	Moderate	High	Extreme	Extreme
Unlikely	Low	Low	Moderate	High	Extreme
Rare	Low	Low	Moderate	High	High

DEFINITIONS OF ASSIGNED RISK LEVELS

Extreme

This rating requires immediate action to develop and document a position or statement incorporating policies and supporting procedures that outline responsibilities and accountabilities of persons who manage such an event.

These documents shall be supported by appropriate training and information dissemination to all stakeholders. Extra resources, effort and investment may be needed to prevent or minimise the likelihood, or prepare for and respond to the event and its consequences.

High

This rating requires existing policy, procedures and plans to be reviewed and implemented to ensure the likelihood and consequences of the risk are minimised. There may be a need to reinforce and inform stakeholders of the existing policies, etc so they can prevent, prepare, and respond to an event. There will be a need to allocate resources and effort towards recovery.

Moderate

This rating requires the on-ground implementation of existing resources, people and budget to minimise the risk, manage the prevention or prepare for and respond to the event. Recovery requirements are expected to be minimal.

Low

This rating suggests that events are unlikely or would be insignificant in nature and complexity and are easily managed with existing controls in a timely manner.

RISK TREATMENT STRATEGIES

The Tasmanian Emergency Management Plan defines the agency roles for various organisations during emergency situations in Tasmania. For emergency events relating to this plan, the main control and support agencies are as follows:

Hazard	Advisory Agency	Prevention and Mitigation Agency	Preparedness Agencies	Response Agency (Support Agencies)
Bushfire	TFS PWS	TFS GSBC PWS	TFS GSBC	TFS (PWS, Forestry, TAS POL, SES, GSBC)
Fire-national parks and reserves	PWS TFS	DPIPWE-PWS	DPIPWE-PWS	DPIPWE -PWS
Storm	SES	SES	SES	SES
Flood-rivers	SES	Councils	SES	SES
Fire – Structural/urban	TFS	TFS GSBC	TFS	TFS (TAS POL, SES)
Coastal erosion	DPIPWE	DPIPWE Resource Management and Conservation Division	DIER Land Use Planning	As required to address consequences
Flood-dams	DPIPWE	DPIPWE Water Resources Division	DPIPWE Water Resources Division	TAS POL (Assisted by dam owner)
Energy supply emergency (includes electricity)	Aurora Energy Transend	Aurora Energy Transend	Aurora Energy Transend	Aurora Energy Transend
Marine pollution and spills	DPIPWE	DPIPWE Environment Division	DPIPWE Environment Division	DPIPWE Environment Division
Hazardous materials spill or leak	TFS	DIER WST	TFS	TFS

Hazard	Advisory Agency	Prevention and Mitigation Agency	Preparedness Agencies	Response Agency (Support Agencies)
Infrastructure failure- State roads and bridges	DIER	DIER Roads and Traffic Division	DIER Roads and Traffic Division	TAS POL DIER Roads and Traffic Division
Road crash	TAS POL	DIER Roads and Traffic Division	DIER Roads and Traffic Division	TAS POL (AT, SES, TFS)
Tsunami and related sea inundation	DPEM	SES	DPEM	DPEM
Water supply contamination	DPIPWE DHHS	DHHS Environmental Health	DHHS Environmental Health	DHHS Environmental Health

For a complete listing of Agency Roles in an Emergency refer to Section 2 of the Tasmanian Emergency Management Plan.

RISK MANAGEMENT STRATEGIES

The following Prevention/Mitigation and Preparedness strategies provide an overview of the actions to be taken to help prevent the emergency events identified in the risk library.

Bushfire Risk Rating: Extreme

The Extreme rating requires immediate action to document and develop an agreed position or statement incorporating policies and supporting procedures that outline responsibilities and accountabilities of persons who manage such an event.

These documents shall be supported by appropriate training and dissemination of information to all stakeholders. Extra resources, effort and investment may be needed to prevent or minimise the likelihood, or prepare for and respond to the event and its consequences.

Prevention/Mitigation Strategies

Prevention/Mitigation Strategy	Responsibility	Timeframe	Result
Hazard reduction of GSBC managed land	GSBC	Annual - Spring	
Clearing roadsides and likely fire containment lines	GSBC	Annual – Winter/Spring	
Landowners follow TFS <i>Guidelines for developing in bushfire prone areas</i> document	Landowner	Annual - Spring	
Inspect properties and determine abatement needs	GSBC	Annual – Winter/Spring	
GSBC to issue abatement notices to landowners	GSBC Landowner	Annual – Winter & early Spring	
GSBC to undertake clearing and fuel reduction and recover cost from landowners	GSBC Contractors local brigades	Annual – Spring and Summer	
Identify and record strategic fire trails, accesses and water sources	TFS District GSBC	6 months	
Reinstate fire trails, containment lines and water/beach accesses	GSBC, TFS Landowners	18 months	
Provide fire safety information detailing the needs of the environment, responsibilities of ownership, building design, clearing defendable areas, etc	TFS GSBC	Annually – with first Rates Notice	
Providing on-site advice	TFS District	Ongoing	
Enforcing compliance with 'Part 5' agreement between GSBC and landowners	GSBC	As needed	
Increasing community fire awareness	TFS District GSBC	Ongoing	
Property inspections conducted to ensure compliance with	GSBC	18 months	

planning and development conditions			
Issue notices to non-compliant landowners	GSBC	18 months	
Development of vegetation and fire management plan(s) for public and private land	TFS District GSBC NRM	Ongoing	

Preparedness Strategies

Preparedness Strategy	Responsible	Timeframe	Result
Inspect existing RA numbering and report and record deficiencies	GSBC and DSRA	6 months	
Installing RA numbers at property entrances	GSBC (Contractors local brigade)	6 months	
Inspect area and determine evacuation routes, reporting and recording centres	GSBC, TFS District and DSRA	6 months	
Design or review existing evacuation forms and administrative needs	GSBC, SES	6 mths	
Distribute evacuation information to residents before each fire season	GSBC, TFS and SES	Each Spring	
Review GSBEMP and communication strategies and systems	GSBEMPC	Ongoing	
Inform community of most reliable communication media during bushfires	GSBC TFS ABC Radio	Each Spring	
Inspect properties annually before fire season for Blue/Green markers	GSBC (assisted by Local brigades)	Each Spring	
Install Blue or Green markers as needed	GSBC (assisted by Local brigades)	Each Spring	
Formulate response plan and circulate between agencies	TFS District	12 months	
Review DSAEMP with GSEMP and Regional EMP	GSBC and SES	Annual with GSBEMP	
Measure and report on fuel loading in area	TFS District and brigade	TFS District	

Aquifer Contamination

Risk Rating: High

The High rating requires existing policy, procedures and plans to be reviewed and implemented to ensure the likelihood and consequences of the risk are minimised.

There may be a need to reinforce and inform stakeholders of the existing policies, etc so they can prevent, prepare, and respond to an event. There will be a need to allocate resources and effort towards recovery.

Prevention/Mitigation Strategies

Prevention/Mitigation Strategy	Responsible	Timeframe	Result
Inform community of aquifer existence, monitoring, condition and affects of contamination	DPIPWE GSBC	Ongoing	
Informing residents of risks associated with septic outlets near water spears	GSBC	Ongoing and at development application	
Inspecting properties and advising residents of unsuitable installations	GSBC	12 months	
Plot septic tank outlets and water spears and 'license' suitable installations and remove non-compliant ones	GSBC	12 months and ongoing	
Continue monitoring and report to GSBC	DPIPWE	Ongoing	

Preparedness Strategies

Preparedness Strategy	Responsible	Timeframe	Result
Inform landowners and potential owners of possible restrictions of use	GSBC	Ongoing and at development application	
Timely notification to residents of possible contamination	DPIPWE, DHHS	ASAP when event identified	

Severe Weather Event

Risk Rating: Extreme

The Extreme rating requires immediate action to document and develop an agreed position or statement incorporating policies and supporting procedures that outline responsibilities and accountabilities of persons who manage such an event.

These documents shall be supported by appropriate training and dissemination of information to all stakeholders. Extra resources, effort and investment may be needed to prevent or minimise the likelihood, or prepare for and respond to the event and its consequences.

Prevention/Mitigation Strategies

Prevention/Mitigation Strategy	Responsible	Timeframe	Result
Publicise awareness information and sources	SES BoM	Ongoing	
Inspection of existing and new buildings in accordance with building code and planning scheme	GSBC	12 months and ongoing	
Identify locations for evacuation centres and temporary relocation venues	GSBC, SES, DHHS	Managed in GSBEMP	

Preparedness Strategies

Preparedness Strategy	Responsible	Timeframe	Result
Timely notification of likely event and information regarding what to do	BoM, SES, Tas Police	ASAP when event forecast	
Inform public of evacuation centres and temporary relocation venues	GSBC, SES, DHHS	Managed in GSBEMP	

Services Failure**Risk Rating: Moderate**

The Moderate rating requires the on-ground implementation of existing resources, people and budget to minimise the risk, manage the prevention or prepare for and respond to the event. Recovery requirements are expected to be minimal.

Prevention/Mitigation Strategies

Prevention/Mitigation Strategy	Responsible	Timeframe	Result
Duplicate utility or provide alternative feed to area	Utility provider	Ongoing	

Emergency Event Preparedness Strategy

Preparedness Strategy	Responsible	Timeframe	Result
Implement agency response plans	Utility provider	ASAP after event reported	
Notify community of area concerned and timeframe	Utility provider	ASAP after event reported	

Flood**Risk Rating: Low**

The Low rating suggests that events are unlikely or would be insignificant in nature and complexity and are easily managed with existing controls in a timely manner.

Prevention/Mitigation Strategies

Prevention/Mitigation Strategy	Responsible	Timeframe	Result
Publicise awareness information and sources	SES BoM	Ongoing	
Provide information to landowners regarding the management of water catchment areas	GSBC	Ongoing	
Provide information to landowners on selection and removal of unwanted vegetation	GSBC	Upon development application	
Remove unwanted species (willows) and replace or reinstate waterways	GSBC Landowners	Ongoing	

Emergency Event Preparedness Strategy

Preparedness Strategy	Responsible	Timeframe	Result
Implement GSBEMP	GSBC, SES Tas Police	ASAP when event starts	

Coastal Erosion

Risk Rating: High

The High rating requires existing policy, procedures and plans to be reviewed and implemented to ensure the likelihood and consequences of the risk are minimised. There may be a need to reinforce and inform stakeholders of the existing policies, etc so they can prevent, prepare, and respond to an event. There will be a need to allocate resources and effort towards recovery.

Prevention/Mitigation Strategies

Prevention/Mitigation Strategy	Responsible	Timeframe	Result
Provide information to community	DPIPWE	Included in GSBEMP	
Target specific properties at higher risk	DPIPWE GSBC	6 months	
Review existing planning scheme and modify if necessary to incorporate research data and likely forecast	GSBC	12 months	

Emergency Event Preparedness Strategy

Preparedness Strategy	Responsible	Timeframe	Result
Inform 'at-risk' property owners of risk and actions to take	Tas Police, SES	As identified	
Provide timely information if event is forecast	Tas Police, SES, BoM	ASAP when event detected	

Marine Pollution / Accident

Risk Rating: High

The High rating requires existing policy, procedures and plans to be reviewed and implemented to ensure the likelihood and consequences of the risk are minimised. There may be a need to reinforce and inform stakeholders of the existing policies, etc so they can prevent, prepare, and respond to an event. There will be a need to allocate resources and effort towards recovery.

Prevention/Mitigation Strategies

Prevention/Mitigation Strategy	Responsible	Timeframe	Result
Review State and local oil spill response plans	DPIPWE GSBEMPC	In accordance with GSBEMP	
Locate spill kits at strategic locations in municipality	DPIPWE GSBC, PWS	In accordance with GSBEMP	

Emergency Event Preparedness Strategy

Preparedness Strategy	Responsible	Timeframe	Result
Inform community and notify when an event occurs	Tasmania Police DPIPWE GSBC	ASAP when event is detected	
Implement the State and local oil spill response plans	DPIPWE GSBC	ASAP when event detected	

EMERGENCY RESPONSE ARRANGEMENTS

General

The Glamorgan Spring Bay Council respects that prevention/mitigation and preparedness strategies may minimise the likelihood and potential consequences of emergency events; however there is always an expectation that a response to each type of event may still be required.

The initial response to an emergency event will usually be undertaken by the statutory emergency services, in accordance with their allocated roles.

Dependent on the event, Council may be required to provide some resource support to the relevant emergency service/s during the response.

Emergency services managing the initial response to the emergency event will also coordinate their own incident management structures, in accordance with their individual agency procedures.

Escalation Process

Once the magnitude (or potential magnitude) of the incident is realised, Council's role may change to focus on providing additional longer-term resources and services to the community affected by the emergency. These roles are provided through the establishment of a Municipal Emergency Coordination Centre (MECC), the function and activation of which is described in following sections.

As the emergency further escalates, additional management structures will be developed at the regional level, through the activation of the Regional Emergency Coordination Centre (RECC). The primary focus at regional level will be on the coordination of emergency services, recovery services, resource support and dissemination of information to the public as required.

At Local Government level, the management focus will be on providing resources to support the effort to mitigate the effects of the emergency. In addition, Council needs to assist in the assessment of the effects on the community in conjunction with the Department of Health and Human Services (DHHS) and determine how services will be provided to the affected community. Council will be supported in this role by DHHS as necessary.

Throughout the escalation, there must be a continual assessment of the capability to meet community needs and to provide ongoing support and resources.

Organisational Responsibilities

Virtually all emergencies involve more than one response agency. As a result, a response management system is required to:

- ensure that each organisation achieves its goals;
- ensure cooperation between organisations; and
- ensure that all aspects of the emergency are efficiently, effectively and appropriately addressed.

The response management system is based on two elements: the lead authority; and support organisations.

Lead Authority

The organisation with primary responsibility for managing a given type of emergency event is called the 'lead authority'. The lead authority is responsible for managing the technical aspects of responding to and suppressing the immediate consequences of the emergency and for the command of its own resources.

Support Organisations

There are many possible support organisations that may provide specialist services in any given emergency event. The work of these organisations may be coordinated by the lead authority. Each support organisation remains responsible for the management of its own resources.

The following tables list the recommended response Strategies, Lead Authorities and Support Organisations for each of the emergency events identified in this plan.

Bushfire Response Strategy

Response Strategy	Lead Authority	Support Organisations
Gather useful and timely information from responders on-the-ground	TFS	SES, GSBC, Evacuation centre Media
Collate, interpret and disseminate information	TFS	SES, GSBC
Broadcast and circulate information as quickly as possible during event	TFS, Media	SES, GSBC
Respond local brigade in accordance with TFS SOPs	TFS	
Provide additional resources from district as determined by responding brigade needs	TFS	
Maintain sufficient reserves for deployment elsewhere in district or region	TFS	
Establish evacuation centre, reporting centre and/or information centre	GSBC	SES, Government agencies Support agencies
Encourage and support residents who are prepared, willing and able to fight a wildfire threatening their property	TFS	Residents and neighbours

Aquifer Contamination Response Strategy

Response Strategy	Lead Authority	Support Organisations
Deploy personnel to assess contamination	DHHS Environmental Health	GSBC, SES
Alert affected community	DHHS Environmental Health	GSBC, SES, Media
Treat affected individuals	DHHS	GSBC, Medical Centre

Severe Weather Event Response Strategy

Response Strategy	Lead Authority	Support Organisations
Respond local SES Unit in accordance with SOPs	SES	GSBC, Tas Pol, TFS, Aurora
Broadcast and circulate information as quickly as possible during event	BoM, SES, Media	Swansea SES Unit
Provide additional resources from region as determined by responding SES Unit needs	SES (Regional Officer)	GSBC
Maintain sufficient reserves for deployment elsewhere in region	SES	
Inform public of safe locations for evacuation centres and temporary relocation venues	GSBC	SES, DHHS
Encourage and support residents who are prepared, willing and able to protect their property	SES	Residents and neighbours

Services Failure Response Strategy

Response Strategy	Lead Authority	Support Organisations
Respond Aurora crews in accordance with SOPs	Aurora Energy	
Broadcast and circulate information as quickly as possible during event	Aurora Energy	Media
Provide additional resources from region as determined by responding crew needs	Aurora Energy	
Maintain sufficient reserves for deployment elsewhere in region	Aurora Energy	
Inform public of safe locations for evacuation centres and temporary relocation venues	GSBC	SES, DHHS

Flood Response Strategy

Response Strategy	Lead Authority	Support Organisations
Respond local SES Unit in accordance with SOPs	SES	Tas Pol
Broadcast and circulate information as quickly as possible during event	BoM, SES, Media	Swansea SES Unit
Provide additional resources from region as determined by responding SES Unit needs	SES (Regional Manager)	GSBC, TFS
Maintain sufficient reserves for deployment elsewhere in region	SES	
Inform public of safe locations for evacuation centres and temporary relocation venues	GSBC	SES, DHHS
Encourage and support residents who are prepared, willing and able to protect their property	SES	Residents and neighbours

Coastal Erosion Response Strategy

Response Strategy	Lead Authority	Support Organisations
Notify DPIPWE to attend	DPIPWE	Tas Pol, SES
Respond local Police in accordance with SOPs	Tas Pol	SES, DPIPWE, PWS-Freycinet, DHHS
Broadcast and circulate information as quickly as possible during event	BoM, DPIPWE, SES, Media	Swansea SES Unit
Provide additional resources from region	SES (Regional Officer)	GSBC
Inform public of safe locations for evacuation centres and temporary relocation venues	GSBC	SES, DHHS

Marine Pollution/Accident Response Strategy

Response Strategy	Lead Authority	Support Organisations
Respond local Police in accordance with SOPs	Tas Pol	SES, DPIPWE, PWS-Freycinet, DHHS
Broadcast and circulate information as quickly as possible during event	Tas Pol, Media	BoM, SES
Provide additional resources from region as determined	SES (Regional Officer)	GSBC, TFS
Inform public of safe locations for evacuation centres and temporary relocation venues	GSBC	SES, DHHS

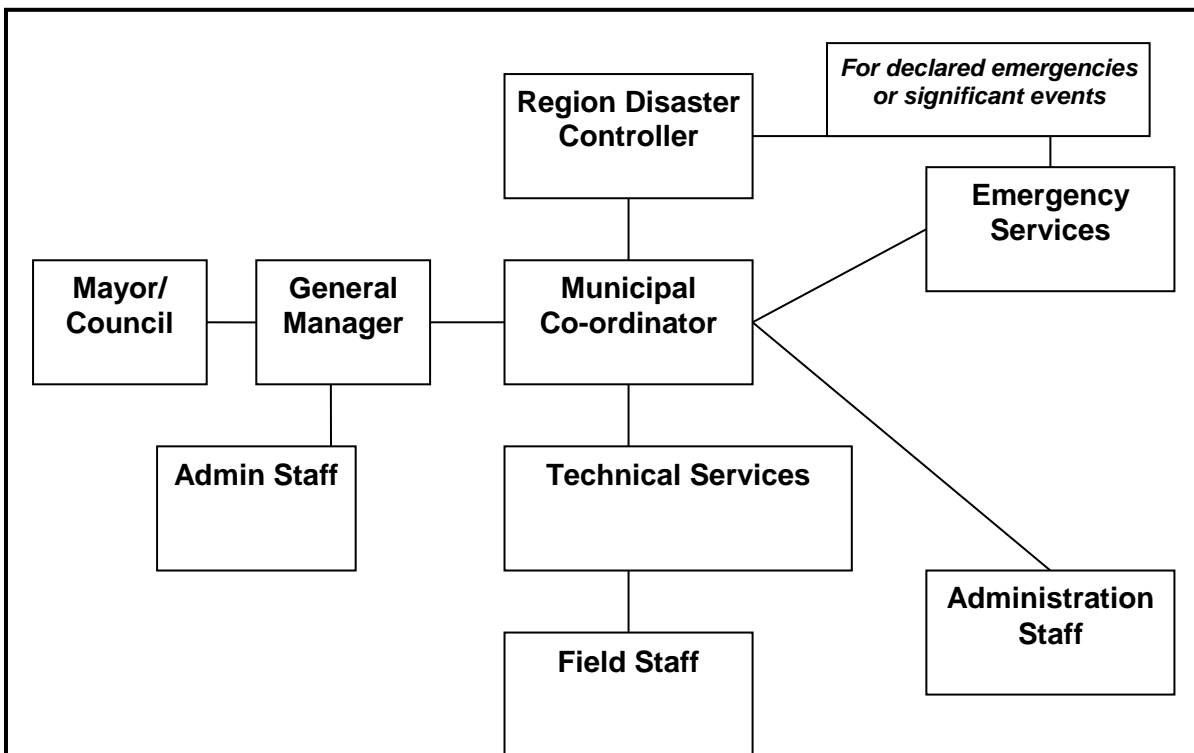
Should the need arise for GSBC to provide support to Lead Authorities, an independent management and coordination structure shall be instigated.

Glamorgan Spring Bay Council (GSBC) Emergency Operations Management Structure, based on GSBEMP guidelines.

During emergency events, it is important that where possible normal management structures remain in place. This is important to ensure a seamless transition from normal Council operations to those required for an emergency event.

Some staff (e.g. GSB Municipal Coordinator) may have special skills for managing the particular aspects of an emergency and are aware of the needs and management issues of emergency services, and regional emergency management arrangements.

The GSBC management structure during emergency events is shown below:



EMERGENCY RESPONSIBILITIES FOR GLAMORGAN SPRING BAY COUNCIL

Emergency Event	Managing Authority	Council Responsibilities
Storms / High Winds	SES	Support SES with resources Manage community recovery
Flooding	GSBC	Manage response Provide resources Protect flood-prone areas Manage community recovery
Structural/Urban Fire	Tasmania Fire Service	Provide resource support if requested Manage community recovery
Bushfire	Tasmania Fire Service	Initiate MEMP Provide resource support Establish evacuation centre Manage community recovery
Earthquake	Tasmania Police	Manage community recovery Support Police with resources
Transportation Accident	Tasmania Police	Provide resource support Manage community recovery
Road Accident Rescue	Tasmania Police (Ambulance Tasmania & SES)	Support local SES unit Manage community recovery
Hazardous Materials	Tasmania Fire Service	Provide resource support Disposal of material
Marine Pollution	DPIPWE	Provide resource support Disposal of material

SUPPORT PROVIDED BY GLAMORGAN SPRING BAY COUNCIL

Support Required	Coordinated By	Council Responsibilities
Barriers / Signage	GSBC	Provide resource support
Dissemination of Information to the Public	Lead authority GSBC	Provide community information on recovery services
Essential Services Power Telecommunications Water Supply	Aurora Transend Telstra GSBC	Provide resource support Coordinate water supplies
Human resources	SES GSBC	Provide resource support
Plant and Equipment	GSBC	Provide resource support
Recovery Services including: <ul style="list-style-type: none"> • Accommodation • Catering • Personal Support and Community Assessments • Financial Support • Insurance • Clothing • Child Support • Victim Registration & Inquiry • Evacuation Centres • Recovery Centres • Immunisation • Community Development • Animal Welfare 	GSBC Recovery Coordinator supported by local and regional agencies as required.	Manage recovery services Liaise with Regional, State, Commonwealth and private recovery agencies

DUTY STATEMENTS

The following Duty Statements detail the main responsibilities and functions of the key positions during emergency events. They are based solely on the Duty Statements contained in the GSBEMP.

Duty Card No.1

Position: Mayor

Responsible To: Glamorgan Spring Bay Council

Duties

Receive notification of emergency from Municipal Coordinator.

Notify Councilors, when deemed necessary.

Maintain contact with and support Municipal Coordinator.

Manage ongoing information to the Council.

Council spokesperson for information to the community and media.

Duty Card No. 2

Position: Chair- GSB Emergency Management Committee

Responsible To: Mayor/ Council

Duties

To chair Council's Emergency Management Committee.

Receive notification of emergency from Municipal Coordinator.

Maintain contact with and support Municipal Coordinator.

Provide annual report to Council on the activities of the DSAEMPC.

Maintain regular contact/liaison with the Municipal Coordinator in regard to the administrative arrangements of the DSAEMPC.

Duty Card No.3

Position: General Manager

Responsible To: Glamorgan Spring Bay Council

General Manager Duties

Notify the Mayor and Councilors, as deemed necessary.

Assist the Mayor with community and media information.

Manage ongoing information to the community and media.

Liaise with and provide support to the Municipal Coordinator.

Maintain accurate records of financial expenditure associated with each individual emergency event.

Duty Card No. 4

Position: Municipal Coordinator

Responsible To: General Manager

Municipal Coordinator Duties

Responsible for the overall management of GSB response to the event.

Establish the Municipal Coordination Centre.

Coordinate resources and activities in the Coordination Centre.

Contact and liaise with emergency services.

Liaise with the Region Disaster Controller (for declared emergencies).

Undertake the role of Executive Officer to the DSAEMPC and carry out the administrative functions of that role.

Notify the General Manager, Mayor, Chair of DSAEMPC of an emergency or potential emergency.

Activate appropriate local emergency management plans.

Maintain a current EMP through regular review.

Be a member of the DSAEMPC.

Duty Card No. 5

Position: Deputy Municipal Coordinator

Responsible To: General Manager/Municipal Coordinator

Duties

Assist the Municipal Coordinator in all duties.

Act as Municipal Coordinator in his/her absence.

Be a member of the DSAEMPC.

Duty Card No. 6

Position: Community Recovery Co-ordinator

Responsible To: Municipal Coordinator

Duties

Receive notification of emergency from Municipal Coordinator.

Notify appropriate community recovery organisations.

Notify Regional Community Recovery Coordinator (DHHS).

Maintain contact with and support Municipal Coordinator.

Manage assessment of community needs with support from DHHS.

Maintain ongoing liaison with DHHS during the provision of services to the community.

Be a member of the DSAEMPC.

Community Information / Media Management

During an emergency event, timely, accurate and informative information to the community is critical. In a period of community uncertainty, concerns can be reduced if advice is provided on what has happened, what needs to be done, and where people can go to gain assistance. Whilst the media will provide information on what has happened, their focus will not always provide the detail that satisfies the needs of an affected community.

GSBC has a critical role in providing community leadership and ongoing information updates to reduce uncertainty within the community. These roles need to be implemented as soon as possible after the event occurs to reduce the potential for inappropriate community action and in some cases undue concern.

Situation reports and information bulletins regarding facilities and emergency assistance should be provided to the community in a timely manner.

The Mayor has a pivotal role as community leader to coordinate community information and be the spokesperson for Council and the affected community. The Mayor will need to be supported in this role by an experienced Media Liaison Officer who can prepare community and media statements and have them endorsed by the Mayor. All Councilors and GSBC staff need to be aware that only the Mayor (or delegate) will speak on behalf of Council and the collective community. The Municipal Coordinator will provide emergency-related information to the Mayor.

Media statements from the GSBC should relate to the impact on the community and the actions being taken by Council. GSBC should not comment on matters that are the province of the emergency services or post-emergency investigations. Statements made by persons with knowledge of only a segment of the total emergency operations can lead to confusion and misunderstanding by the public.

EMERGENCY EVENT OPERATING PROCEDURES

FIRST ALERT OF EMERGENCY OR NOTIFICATION OF POTENTIAL EMERGENCY

Municipal Coordinator

When first alerted of an emergency or potential emergency the Municipal Coordinator must:

- Assess the necessity to establish the operations centre
- Contact response teams/supervisors and other potentially affected areas as determined appropriate
- Notify the General Manager
- Contact those staff that may have a direct role in the emergency
- If the first alert is received outside normal working hours, the Municipal Coordinator must re-assess and determine the appropriate people to contact. Such contacts will depend on the type and extent of incident.

Liaison with Emergency Services

In the event of an emergency occurring within the Dolphin Sands area threatening life and/or property, the Municipal Coordinator will liaise with all emergency services through the REMC.

The Executive Officer of the REMC will arrange for briefings from the emergency service that is managing the event (Police, TFS, SES or DHHS). These briefings will identify the role of GSBC and the physical and human resources that may be required to assist.

Bushfire

The Municipal Coordinator will be advised of severe fire weather days and this should provide the trigger to alert Council staff to be vigilant in identifying fire outbreaks, and monitoring the current situation through the TFS website (www.fire.tas.gov.au).

If deemed appropriate by the Municipal Coordinator during a bushfire a Council Officer will be deployed to the TFS Incident Management Centre to act as a liaison officer for Council. The Natural Resources Officer is the first preference to act as the liaison officer.

Should any GSBC employee become aware of a fire, which may have the potential to threaten any area of GSB Municipality it should be reported immediately to the Tasmania Fire Service, phone 000, in the first instance, and then the Municipal Coordinator.

The Municipal Coordinator shall be responsible or nominate an officer to be responsible for the coordination of information and response.

Unless specifically requested, employees shall be instructed not to go out of their way to attend the fire. Their presence may place them at risk and potentially interfere with the emergency services.

Floods

The SES has responsibility for receiving flood alerts and warnings from the Bureau of Meteorology and conveying that advice to Local Governments that may be affected by potential floods.

The Municipal Coordinator will be provided with advice on the potential for flood events, the possible extent of flood inundation, and the resources available from SES to assist with flood mitigation actions.

If evacuations are required, the decision to evacuate will be made by the Region Disaster Controller in consultation with SES and Municipal Coordinator.

Severe Weather Events

The SES has responsibility for receiving storm warnings from the Bureau of Meteorology and conveying that advice to Local Governments that may be affected by severe weather storms.

The Municipal Coordinator will be advised of any severe weather warning that is issued by the Bureau of Meteorology that indicate a potential threat to GSB Municipality.

The SES will provide the initial response to any report of structural damage. In severe events, GSBC may be requested to support the SES in responding to calls for assistance from the community. This request will be through the Municipal Coordinator.

Recovery Responsibilities

The roles for recovery are detailed in the Tasmanian Emergency Management Plan.

Recovery activities will normally commence following the completion of initial response activities. A recovery plan will be formulated in accordance with the GSBEMP. The plan will involve consultation with other agencies involved in the incident or other organisations with relevant expertise as required. The plan will also detail the current situation, the planned outcome of recovery activities, the resources required to achieve this outcome and a timeframe for implementation.

Financial Considerations

The General Manager must approve expenditure and deployment of resources for emergencies.

When GSBC is acting as a support agency, they are responsible for their own costs,

Staff Welfare

Every effort should be made to support staff involved in emergency response activities, including an appropriate Critical Incident Stress Debriefing session for an individual or group, and must be organised as soon as practicable after the event.

APPENDICIES

Distribution List

Agency	Version	Issued to	Date of Issue
Glamorgan Spring Bay Council	1.0	COUNCIL	11/10/2011
Tasmania Police	1.0	PETER EDWARDS	11/10/2011
State Emergency Service (4 req)	1.0	IAIN BURNS	11/10/2011
Tasmania Fire Service	1.0	PAUL SALTER	11/10/2011
Dolphin Sands Ratepayers Association	1.0	GARY STOWARD	11/10/2011
DPIPWE	1.0	ADRIAN PYRKE	11/10/2011