



BURDEKIN SHIRE COUNCIL
CHEMICAL SPILLS RISK STUDY

FINAL REPORT
May 2002

PREPARED BY
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1. EXECUTIVE SUMMARY

Burdekin Shire Council (BSC) commissioned a Risk Assessment of the possibility and nature of Chemical Spills that may arise within the Shire, against a backdrop of a limited number of reported but significant incidents, the current emphasis on improved methods of managing incidents proactively, the physical environment in which potential disasters occur and the recently introduced '***Dangerous Goods Safety Management Act 2001***'. The new Act places responsibilities on Council that requires immediate attention.

Council released a Counter Disaster Plan (October 1998) that provides a basis for crisis management. The Plan includes a process for the management of chemical spills. The Plan is supported by Standing Operating Procedures for the Disaster Coordination Centre (October 2000).

The approach is intended to provide for process improvements in the description and analysis of hazards and disasters and the development of responsive strategies that proactively and reactively address the defined risks.

Council identified the commercial agencies that operate within Shire who may transport and or store hazardous materials, as defined in the '***Dangerous Goods Safety Management Act 2001***'. A survey instrument was constructed and distributed to the identified agencies. Four (4) formal responses were received and analysed. The results are considered of use and provide an opportunity to improve processes and thus reduce the risk of an adverse event occurring and if such an event did arise, that prompt remedial action would follow.

It is concluded that there is a 'moderate' residual risk to the Shire of chemical spills (rating of M28). The risk is relatively low but has consequences if a major emergency occurred. Additional actions to further reduce the risk are proposed.

It is recommended that the Action plans (Attachment 6 [Detailed Risk Action Plan]) be implemented as soon as possible.

2. INTRODUCTION AND BACKGROUND

Burdekin Shire Council (BSC) commissioned a Risk Assessment of the possibility and nature of Chemical Spills that may arise within the Shire, against a backdrop of a limited number of reported but significant incidents, the current emphasis on improved methods of managing incidents proactively, the physical environment in which potential disasters occur and the recently introduced '***Dangerous Goods Safety Management Act 2001***'. The new Act places responsibilities on Council that requires immediate attention.



Council released a Counter Disaster Plan (October 1998) that provides a basis for crisis management. The Plan includes a process for the management of chemical spills. The Plan is supported by Standing Operating Procedures for the Disaster Coordination Centre (October 2000).

The approach is intended to provide for process improvements in the description and analysis of hazards and disasters and the development of responsive strategies that proactively and reactively address the defined risks.

Council identified the commercial agencies that operate within Shire who may transport and or store hazardous materials, as defined in the '**Dangerous Goods Safety Management Act 2001**'. A survey instrument was constructed and distributed to the identified agencies (see Attachments 1 & 2). Four (4) formal responses were received and analysed. The results are considered of value and provide an opportunity to improve processes and thus reduce the risk of an adverse event occurring and if such an event did arise, that prompt remedial action would follow.

The responses were reviewed and analysed against the principles of Risk Assessment defined in AS/NZS 4360:1999 *Risk Management* Standard. The results of the analysis are found in Attachments 3 – 6:

- Attachment 3 - Identification and Description of Hazard;
- Attachment 4 - Risk Description Register;
- Attachment 5 - Identification and Evaluation of Treatment Options;
- Attachment 6 - Detailed Risk Action Plan.

3. CONCLUSIONS AND RECOMMENDATIONS

It is concluded that there is a 'moderate' residual risk to the Shire of chemical spills (rating of M28). The risk is relatively low but has major consequences if a major event occurred. Additional actions to further reduce the risk are proposed. These actions are based on the analysis of responses from the agencies identified by Council, who may have responsibilities for the storage and or transport of hazardous materials.

Council has responsibilities under the new Act that requires immediate action.

It is recommended that the Action plans (Attachment 6 [Detailed Risk Action Plan]) be implemented as soon as possible.



ATTACHMENT 1: LETTER TO AGENCIES

Tuesday 26 March 2002

«Title» «FirstName» «LastName»
«Company»
«Address1»
«Address2»
«City» «State» «PostalCode»

Dear «FirstName»,

RE: STORAGE, HANDLING AND TRANSPORT OF DANGEROUS GOODS UNDER THE DANGEROUS GOODS SAFETY MANAGEMENT ACT 2001

The new Act places increased responsibilities on Councils and the business sector to manage risks.

The Burdekin Shire Council is aware of the community interest in the environment, the “liquid gold” tag that is placed on the Shire’s water table assets and the impact of chemical spills on these assets.

The Shire has engaged Queensland Risk Management Consultants (QRMC) to undertake a Risk Assessment of the possibility of chemical spills within the Shire to determine changes that may be required in the present Counter Disaster measures and in particular, changes that may flow from the new legislation.

Council has identified your company as a possible site for the storage, handling and transport of dangerous chemicals.

As part of the assessment process, I would appreciate your assistance in completing the brief details (attached) to allow us to identify issues for further review and assessment. Your assistance by returning the questionnaire by **20 April 2002** would be greatly appreciated.

Further information on the requirements on the new Act can be found on the Department of Emergency services Web Site
www.emergency.qld.gov.au/chem/publications
or telephone 07 3247 8444 and fax 07 3247 8433.

**PLEASE CONTACT THE WRITER ON 3229 1744 OR MOBILE 0407 754 041
SHOULD YOU HAVE QUESTIONS ABOUT THE COUNCIL RISK
ASSESSMENT.**

David Kelly
Senior Consultant



COUNCIL IDENTIFIED AGENCIES

Title	First Name	Last Name	Company	Address1	Address2	Town	State	Post Code
Mr	Wilfred	Tapiolas	Parkside Group of Companies	34 Margaret Street		Ayr	Qld	4807
Mr	C	Wilson	Westfarmers Landmark	20 Bird Street		Ayr	Qld	4807
Mr	Jerry	Hall	Ayr Cane Protection & Productivity Board	Old Clare Road		Ayr	Qld	4807
Mr	Hugh	Keir	Primac Elders Ltd	7 McCathie Street		Ayr	Qld	4807
Mr	Terry	Morato	Pivot Limited Ayr-Burdekin Lime Company	9 Bird Street		Ayr	Qld	4807
Mr	Rodney	Drain	Summit Fertilisers Freightwest Pty Ltd	141 Drysdale Street		Brandon	Qld	4808
Mrs	Eileen	List	Burdekin Grower Services	Railway Street		Ayr	Qld	4807
Mr	A	Cox	Incitec Fertilisers	Rossiters Hill	Bruce Highway	Ayr	Qld	4807
Mr	Graham	Webb	Chief Executive Officer	Burdekin Shire Council	PO Box 974	Ayr	Qld	4807



ATTACHMENT 2: QUESTIONNAIRE

**Please return in enclosed envelope by
20 April 2002**

Storage, Handling and Transport of Dangerous Goods under the Dangerous Goods Safety Management Act 2001

1. Have you obtained copies of the Act/new requirements? Yes/No
2. If not, are you aware of the new requirements? Yes/No

If you have not reviewed the current requirements, it is suggested you do so as soon as possible (www.emergency.qld.gov.au/chem/publications or phone 07 3247 8444)

3. To what Category does your company/organisation belong?
- a) Major Hazard Facilities (MHFs) Yes/No
 - b) Large Dangerous Goods Locations (LDGLs) Yes/No
 - c) Dangerous Goods Locations (DGLs) Yes/No
 - d) Minor Storage Workplaces (MSWs) Yes/No
4. The Categorisation system described prescribes quantity limits. It is expected that your company will comply with the safety requirements for your level. Do you comply with the defined limits? Yes/No
5. The previous Regulations and current requirements emphasise safety management. Emergency Services literature suggests that if you comply with the previous legislation, you will, in many cases, comply with the requirements of the new Act.
- a) Do you have in place a Safety Management System (SMS) that complies with the existing/new legislation? Yes/No
 - b) Have you undertaken a Risk Assessment of your premises in relation to hazardous materials in the last twelve (12) months? Yes/No
 - c) Are your SMS procedures documented and available to staff? Yes/No
 - d) Have you revised your SMS procedures in the last 12 months? Yes/No

P.T.O.



6. What precautions do you take when transporting hazardous materials around the Shire?

.....
.....
.....
.....

7. What precautions do you take to store hazardous materials on site?

.....
.....
.....
.....

8. Are you aware of the Council’s Counter Disaster measures that include a response to chemical/hazardous material spills? Yes/No

If you would like more information, please contact Council on 074783 9800

9. Do you provide training to staff involved in the loading, unloading, transport and storage of hazardous materials? Yes/No

10. Are new staff oriented into the company SMS procedures? Yes/No

11. Is the training evaluated and tested at least annually? Yes/No

a) Have you had to implement a safety response in the last two years? Yes/No

b) If yes, what was the outcome?

.....
.....
.....
.....

c) At any one time, what quantity and type of hazardous materials do you normally store on your premises?

Type	Volume
.....
.....
.....
.....
.....

On behalf of Council, I thank you for your assistance.

Please return this response in the enclosed self-addressed envelope to:
 Mr David Kelly
 Senior Consultant
 QRMC – Risk Management
 GPO Box 2232
 Brisbane Qld 4001

Enquiries:
 Phone 07 3229 1744
 Mobile 0407 754 041





ATTACHMENT 3: IDENTIFICATION AND DESCRIPTION OF HAZARD: CHEMICAL SPILLS

Hazard Description

1. Urban and Rural

The Burdekin Shire is located near the tropics, has a major water table located just below the land surface and experiences a high volume of road and rail traffic through the Shire, as part of the main Brisbane/Cairns link. Road and rail traffic converges on a single (road/rail) bridge at a point between Ayr and Home Hill at the Burdekin River Bridge. The bridge is designed to carry two lanes of road traffic together with a single rail line.

The Shire economy, based primarily on sugar production, relies on the water table and the water flow from the Burdekin and Haughton Rivers for irrigation and household water supply purposes. Any temporary or permanent damage to the region's water supply would have dire economic and social impacts.

The Shire Council and residents have a requirement for the transport, storage and use of chemicals and related hazardous materials. In addition, the road and rail network provides a conduit for through traffic carrying such materials to other destinations. The Council has had to initiate its Counter Disaster measures due to (1) a localised incident that involved an overturned truck carrying hazardous materials and (2) the derailment of trains at or near the Burdekin River Bridge.

Four (4) survey responses were returned from a possible nine (9) representing a survey response rate of 44%. The review of survey responses revealed the following:

SURVEY RESPONSES

Storage, Handling and Transport of Dangerous Goods under the Dangerous Goods Safety Management Act 2001

(Responses in Bold)

1. Have you obtained copies of the Act/new requirements? **(3) Yes; (1) No**
2. If not, are you aware of the new requirements? **(3) Yes; (1) No**
3. To what Category does your company/organisation belong?



- a) Major Hazard Facilities (MHFs) Nil
b) Large Dangerous Goods Locations (LDGLs) (1)
c) Dangerous Goods Locations (DGLs) (1)
d) Minor Storage Workplaces (MSWs) (2)
4. The Categorisation system described prescribes quantity limits. It is expected that your company will comply with the safety requirements for your level. Do you comply with the defined limits? (4) Yes
5. The previous Regulations and current requirements emphasise safety management. Emergency Services literature suggests that if you comply with the previous legislation, you will, in many cases, comply with the requirements of the new Act.
- a) Do you have in place a Safety Management System (SMS) that complies with the existing/new legislation? (1) Yes; (3) No
b) Have you undertaken a Risk Assessment of your premises in relation to hazardous materials in the last twelve (12) months? (2) Yes; (2) No
c) Are your SMS procedures documented and available to staff? (1) Yes; (3) No
d) Have you revised your SMS procedures in the last 12 months? (4) No
6. What precautions do you take when transporting hazardous materials around the Shire?
• **As per AVCA guidelines (AS 1940)(1 x LDGL)**
• **Labelling on goods (1 x MSW)**
• **Labelling (signs) on prime mover, trailer body of truck and container (1 x MSW)**
• **Gates around body of truck (1 x MSW)**
• **Carried in containers below at or below exemption levels (1 x DGL)**
• **We do not transport (1 x MSW)**
7. What precautions do you take to store hazardous materials on site?
• **Follow all requirements of storage under MSDS/AVCA guidelines (AS 1940) (4)**
• **Fire extinguishers placed in crucial points (1 x MSW)**
• **Dangerous goods stored in 'bunded' area (1 x MSW)**
• **Temporary o/night storage area with fire extinguishers handy (1 x MSW)**



8. Are you aware of the Council’s Counter Disaster measures that include a response to chemical/hazardous material spills? **(1)Yes; (3) No**
9. Do you provide training to staff involved in the loading, unloading, transport and storage of hazardous materials? **(3)Yes; (1) No**
- **Provided by Toll Group (NQX) (1 x MSW)**
10. Are new staff oriented into the company SMS procedures? **(3) Yes; (1) No**
11. Is the training evaluated and tested at least annually? **(1)Yes; (3)No**
- **Will be now the responsibility of Toll Group (NQX) (1 x MSW)**
- a) Have you had to implement a safety response in the last two years? **(4)No**
- b) If yes, what was the outcome?
.....
- c) At any one time, what quantity and type of hazardous materials do you normally store on your premises?

Type	Volume
(1) (LDGL)	
Class 6 PG3	10,000 lt +
Class 3 PG3	3,000 lt +
Class 5	10,000 kg +
(2) (MSW)	
Paint	40 lt
Boxed aerosols	3 boxes x 10
Petrol	20 lt
(3) (MSW) - Chlorine	840 kg
(4) (MSW) - Pool chemicals	Various (unstated)



ATTACHMENT 4.1: RISK DESCRIPTION REGISTER – CHEMICAL SPILLS – PEOPLE

RIC	RISK DESCRIPTION	CAUSATION	CONSEQUENCE	LEVEL	EXISTING TREATMENT/S	LIKELIHOOD	RATING E H M L N
People	<ul style="list-style-type: none"> • Injury from unsafe practice • Lack of knowledge of responsive strategies • Location of the staff/community at the time of the events • Impact of economic loss on the community and service providers post event • Injury to members of the community and those assisting • Panic amongst the community • Theft and presence of looters • Access of the community to Insurers • Impact of limited insurance cover on the community • Ability of community to understand the role of the SES, Police etc • Loss of income 	<ul style="list-style-type: none"> • Occurrence of a adverse incident • Inability of staff to heed or interpret warnings • Inability of staff to follow procedures • Inadequate safety training and facilities 	<ul style="list-style-type: none"> • Injury to or death of staff or helpers • Putting at risk the lives of emergency service personal • Additional need for counselling and support services • Economic loss • Loss of employment 	2	<ul style="list-style-type: none"> • Provision of MSDS • Safety Management systems available • Safety equipment is available • Security provisions to prevent unauthorised access • Comprehensive and rehearsed Council Counter Disaster Plan • Well educated and trained SES teams • Hand outs on emergency procedures for staff and the community • Building design requirements 	C	M28



ATTACHMENT 4.2: RISK DESCRIPTION REGISTER – CHEMICAL SPILLS – COMMERCIAL

RIC	RISK DESCRIPTION	CAUSATION	CONSEQUENCE	LEVEL	EXISTING TREATMENT/S	LIKELIHOOD	RATING E H M L N
Commercial	<ul style="list-style-type: none"> • WH&S claims due to an Injury from unsafe practice • Lack of knowledge of responsive strategies • Location of the staff/community at the time of the events • Impact of economic loss on the business post event • Destruction of commercial abode • Adverse publicity 	<ul style="list-style-type: none"> • Occurrence of a adverse incident • Inability of business to enforce safety management system procedures • Inability of staff to follow procedures • Inadequate safety training and facilities 	<ul style="list-style-type: none"> • Injury to or death of staff or helpers • Putting at risk the lives of emergency service personal • Additional need for counselling and support services • Economic loss • Loss of employment 	2	<ul style="list-style-type: none"> • Provision of MSDS • Safety Management systems available • Safety equipment is available • Security provisions to prevent unauthorised access • Comprehensive and rehearsed Council Counter Disaster Plan • Well educated and trained SES teams • Building design requirements 	C	M28



ATTACHMENT 4.3: RISK DESCRIPTION REGISTER – CHEMICAL SPILLS – ENVIRONMENTAL

RIC	RISK DESCRIPTION	CAUSATION	CONSEQUENCE	LEVEL	EXISTING TREATMENT/S	LIKELIHOOD	RATING E H M L N
Environmental	<ul style="list-style-type: none"> • Temporary or permanent damage to the natural water course • Contamination of the top soils • EPA claims against the contaminating party • Lack of knowledge of responsive strategies • Impact of economic loss on the business post event • Destruction of environmental amenity • Adverse publicity 	<ul style="list-style-type: none"> • Occurrence of a adverse incident • Inability of business to enforce safety management system procedures • Inability of staff to follow procedures • Inadequate safety training and facilities 	<ul style="list-style-type: none"> • Contamination of the top soils • Temporary or permanent damage to the water course • Injury to or death to native wildlife • Putting at risk the lives of emergency service personal • Economic loss • Loss of employment 	2	<ul style="list-style-type: none"> • Provision of MSDS • Safety Management systems available • Safety equipment is available • Security provisions to prevent unauthorised access • Comprehensive and rehearsed Council Counter Disaster Plan • Well educated and trained SES teams • Building design requirements 	C	M28



ATTACHMENT 5: IDENTIFICATION AND EVALUATION OF TREATMENT OPTIONS

CHEMICAL SPILLS

Hazard	Summary of Risk	Risk Priority (RL) *	Treatment Options	Treatment Evaluation
CHEMICAL SPILLS – People				
People	<ul style="list-style-type: none"> • Injury from unsafe practice • Lack of knowledge of responsive strategies • Location of the staff/community at the time of the events • Impact of economic loss on the community and service providers post event • Injury to members of the community and those assisting • Panic amongst the community • Theft and presence of looters • Access of the community to Insurers • Impact of limited insurance cover on the community • Ability of community to understand the role of the SES, Police etc • Loss of income 	M28	<ul style="list-style-type: none"> • Ensure BSC key personnel are aware of and compliant with its legal obligations under the DGSM Act 2001 • Ensure all agencies operating in the Shire are aware of the requirements of the new DGSM Act 2001 • Review and update the Counter Disaster Plan (October 1998) as it relates to the changes to the DGSM Act 2001 	<ul style="list-style-type: none"> • These are cost effective options to remind the commercial sector about risks and solutions
Commercial	<ul style="list-style-type: none"> • WH&S claims due to an Injury from unsafe practice • Lack of knowledge of responsive strategies • Location of the staff/community at the time of the events • Impact of economic loss on the business post event • Destruction of commercial abode 	M28	<ul style="list-style-type: none"> • Ensure BSC key personnel are aware of and compliant with its legal obligations under the DGSM Act 2001 • Ensure all agencies operating in the Shire are aware of the requirements 	<ul style="list-style-type: none"> • These are cost effective options to remind the commercial sector about risks and solutions

*RL
 E = Extreme risk
 H = High risk
 M = Moderate risk
 L = Low risk



Hazard	Summary of Risk	Risk Priority (RL) *	Treatment Options	Treatment Evaluation
	<ul style="list-style-type: none"> Adverse publicity 		<ul style="list-style-type: none"> of the new DGSM Act 2001 Review and update the Counter Disaster Plan (October 1998) as it relates to the changes to the DGSM Act 2001 Undertake random audits within the confines of the processes available under the DGSM Act 2001 	
Environmental	<ul style="list-style-type: none"> Temporary or permanent damage to the natural water course Contamination of the top soils EPA claims against the contaminating party Lack of knowledge of responsive strategies Impact of economic loss on the business post event Destruction of environmental amenity Adverse publicity 	M28	<ul style="list-style-type: none"> Ensure BSC key personnel are aware of and compliant with its legal obligations under the DGSM Act 2001 Ensure all agencies operating in the Shire are aware of the requirements of the new DGSM Act 2001 Review and update the Counter Disaster Plan (October 1998) as it relates to the changes to the DGSM Act 2001 Undertake random audits within the confines of the processes available under the DGSM Act 2001 	<ul style="list-style-type: none"> These are cost effective options to remind the commercial sector about risks and solutions



ATTACHMENT 6: DETAILED RISK ACTION PLAN

Chemical Spills: Action Statement Number 1

PEOPLE, COMMERCIAL AND ENVIRONMENTAL:

PEOPLE

- Injury from unsafe practice
- Lack of knowledge of responsive strategies
- Location of the staff/community at the time of the events
- Impact of economic loss on the community and service providers post event
- Injury to members of the community and those assisting
- Destruction of residential abode
- Panic amongst the community
- Theft and presence of looters
- Access of the community to Insurers
- Impact of limited insurance cover on the community
- Ability of community to understand the role of the SES, Police etc
- Loss of income

COMMERCIAL

- WH&S claims due to an Injury from unsafe practice
- Lack of knowledge of responsive strategies
- Location of the staff/community at the time of the events
- Impact of economic loss on the business post event
- Destruction of commercial abode

ENVIRONMENTAL

- Temporary or permanent damage to the natural water course
- Contamination of the top soils
- EPA claims against the contaminating party
- Lack of knowledge of responsive strategies
- Impact of economic loss on the business post event
- Destruction of environmental amenity

Summary – Recommended response

- Ensure BSC key personnel are aware of and compliant with its legal obligations under the DGSM Act 2001

Action plan

1. Proposed actions

- Undertake a review of the Dangerous Goods Safety Management Act 2001 to ascertain Council's responsibilities
- Assign responsibility to a Council officer for the administration of the requirements of the Act
- Undertake an internal audit of Council's own operations, subject to the Act
- Undertake an internal education program



2. Resources required

Time and materials.

3. Responsibilities

BSC – CEO or delegate.

4. Timetable – Operational plan year & Timeframe

To be completed by September 2002.

5. Estimated cost and Possible funding source.

Labour and materials – Council budget.

6. Reporting & Monitoring

CEO – review due September 2002.



Chemical Spills: Action Statement Number 2

PEOPLE, COMMERCIAL AND ENVIRONMENTAL:

PEOPLE

- Injury from unsafe practice
- Lack of knowledge of responsive strategies
- Location of the staff/community at the time of the events
- Impact of economic loss on the community and service providers post event
- Injury to members of the community and those assisting
- Destruction of residential abode
- Panic amongst the community
- Theft and presence of looters
- Access of the community to Insurers
- Impact of limited insurance cover on the community
- Ability of community to understand the role of the SES, Police etc
- Loss of income

COMMERCIAL

- WH&S claims due to an Injury from unsafe practice
- Lack of knowledge of responsive strategies
- Location of the staff/community at the time of the events
- Impact of economic loss on the business post event
- Destruction of commercial abode

ENVIRONMENTAL

- Temporary or permanent damage to the natural water course
- Contamination of the top soils
- EPA claims against the contaminating party
- Lack of knowledge of responsive strategies
- Impact of economic loss on the business post event
- Destruction of environmental amenity

Summary – Recommended response

Ensure all agencies operating in the Shire are aware of the requirements of the new DGSM Act 2001

Action plan

1. Proposed actions

- Review the outcomes of the survey and contact all agencies to ascertain their current status

2. Resources required

Time and materials.



3. Responsibilities

BSC – CEO or delegate.

4. Timetable – Operational plan year & Timeframe

To follow completion of Action 1.

5. Estimated cost and Possible funding source.

Labour and materials – Council budget

6. Reporting & Monitoring

CEO – review due September 2002.



Chemical Spills: Action Statement Number 3

PEOPLE, COMMERCIAL AND ENVIRONMENTAL:

PEOPLE

- Injury from unsafe practice
- Lack of knowledge of responsive strategies
- Location of the staff/community at the time of the events
- Impact of economic loss on the community and service providers post event
- Injury to members of the community and those assisting
- Destruction of residential abode
- Panic amongst the community
- Theft and presence of looters
- Access of the community to Insurers
- Impact of limited insurance cover on the community
- Ability of community to understand the role of the SES, Police etc
- Loss of income

COMMERCIAL

- WH&S claims due to an Injury from unsafe practice
- Lack of knowledge of responsive strategies
- Location of the staff/community at the time of the events
- Impact of economic loss on the business post event
- Destruction of commercial abode

ENVIRONMENTAL

- Temporary or permanent damage to the natural water course
- Contamination of the top soils
- EPA claims against the contaminating party
- Lack of knowledge of responsive strategies
- Impact of economic loss on the business post event
- Destruction of environmental amenity

Summary – Recommended response

- Review and update the Counter Disaster Plan (October 1998) as it relates to the changes to the DGSM Act 2001

Action plan

1. Proposed action

Following completion of Action 1, update the CD Plan as it relates to Chemical Spills

2. Resources required

Time and materials.



3. Responsibilities

BSC – CEO or delegate.

4. Timetable – Operational plan year & Timeframe

To follow completion of Action 1.

5. Estimated cost and Possible funding source.

Labour and materials – Council budget.

6. Reporting & Monitoring

CEO review end September 2002.



Chemical Spills: Action Statement Number 4

COMMERCIAL AND ENVIRONMENTAL:

COMMERCIAL

- WH&S claims due to an Injury from unsafe practice
- Lack of knowledge of responsive strategies
- Location of the staff/community at the time of the events
- Impact of economic loss on the business post event
- Destruction of commercial abode

ENVIRONMENTAL

- Temporary or permanent damage to the natural water course
- Contamination of the top soils
- EPA claims against the contaminating party
- Lack of knowledge of responsive strategies
- Impact of economic loss on the business post event
- Destruction of environmental amenity

Summary – Recommended response

Undertake random audits within the confines of the processes available under the DGSM Act 2001

Action plan

7. Proposed action

Following completion of Action 1

8. Resources required

Time and materials.

9. Responsibilities

BSC – CEO or delegate.

10. Timetable – Operational plan year & Timeframe

To follow completion of Action 1.

11. Estimated cost and Possible funding source.

Labour and materials – Council budget.

12. Reporting & Monitoring

CEO review end September 2002.



ATTACHMENT 7: MEASURES OF CONSEQUENCE

Level	Descriptor	Description
1	Insignificant	No fatalities; no injuries; low financial loss; little disruption to community; no measurable impact on environment.
2	Minor	Small number of injuries; no fatalities; first aid treatment required; some displacement of people (very short period of time (<24hrs)); some personal support required; some damage; some disruption (<24hrs); small impact environment with no lasting affects; some financial loss.
3	Moderate	Medical treatment required; no fatalities; some hospitalisation; displacement of people (24hrs); personal support satisfied through local arrangement; localised damage which is rectified by routine arrangements; normal community functioning with some inconvenience; some impact on environment with long-term effect; significant financial loss.
4	Major	Extensive injuries; fatalities; significant hospitalisation; large number displaced (>24 hrs); external resources required for personal support; significant damage that requires external resources; community only partially functioning; some services unavailable; some impact on environment with long term effects; significant financial loss - some financial assistance required.
5	Catastrophic	Large numbers of severe injuries; extended and large numbers requiring hospitalisation; general and widespread displacement for extended duration; significant fatalities; extensive personal support; extensive damage; community unable to function without significant support; significant impact on environment and/or permanent damage; huge financial loss - unable to function without significant support.



ATTACHMENT 8: MEASURES OF LIKELIHOOD

Level	Descriptor (As per AS4360)	Description (As per AS4360)	Quantification
A	Almost Certain	The event is expected to occur in most circumstances	More than once per year
B	Likely	The event will probably occur in most circumstances	At least once in 5 years
C	Possible	The event might occur at some time	At least once in 10 years
D	Unlikely	The event could occur at some time	At least once in 30 years
E	Rare	The event may occur only in exceptional circumstances	Less than once in 30 years



ATTACHMENT 9: RISK ANALYSIS MATRIX

RISK LEVELS							
			Consequences				
			Level 1 Insignificant	Level 2 Minor	Level 3 Moderate	Level 4 Major	Level 5 Catastrophic
Likelihood	A	Almost Certain	H – 40	H – 48	E – 72	E – 84	E – 100
	B	Likely	M – 24	H – 44	H – 56	E – 80	E – 96
	C	Possible	L – 12	M – 28	H – 52	E – 76	E – 92
	D	Unlikely	L – 8	L – 20	M – 36	H – 64	E – 88
	E	Rare	L – 4	L – 16	M – 32	H – 60	H – 68

LEGEND

LEVEL	DESCRIPTOR	DESCRIPTION
E	EXTREME RISK	Immediate action required
H	HIGH RISK	Senior management attention needed
M	MODERATE RISK	Management responsibility must be specified
L	LOW RISK	Manage by routine procedures