

DAM SAFETY EMERGENCY PLAN

Location of Dam _____

Vic Roads Map Reference _____

This document sets out the procedures the Dam Owner is obliged to take in the case of a Major Event or incident occurring at the dam.

Priority of Action:

- > Saving Life
- > Saving Property
- > Dam Structure Damage Control

Failure to apply due diligence under circumstances that could result in injury or damage to public or private property may constitute a liability against the dam owner.

The dam owner is responsible for keeping this document up-to-date

UPDATED _____

SELECT APPROPRIATE SUBJECT BELOW AND FLIP CHART PAGE FOR QUICK REFERENCE ON PROCEDURE

Black text for
information

White text for
decision

Red text for action





CONTACT LIST FOR EMERGENCY RESPONSE



**DAM SAFETY
EMERGENCY PLAN**

POLICE	Ph (03) _____ _____	Office After Hours
SES	Ph (03) _____ _____	Office After Hours
ENGINEER	Ph (03) _____ _____	Office After Hours
LICENSING AUTHORITY	Ph (03) _____ _____	Office After Hours
MUNICIPAL COUNCIL	Ph (03) _____ _____	Office After Hours
DEPT. OF NATURAL RESOURCES & ENVIRONMENT	Ph (03) _____ _____	Office After Hours
MET. BUREAU WEATHER REPORTS	Ph (03) _____ _____	Office After Hours
DOWN STREAM NEIGHBOURS	Name _____	Ph _____
	Name _____	Ph _____
	Name _____	Ph _____
	Name _____	Ph _____

Having made initial contact, the dam owner shall make arrangements to maintain continuous contact and provide timely advice on changes of conditions

EMERGENCY EVENTS AND/OR INCIDENTS



**DAM SAFETY
EMERGENCY PLAN**

EVENTS

High Rainfall/Floods – Storms – Earthquake – Other

EMERGENCY INCIDENTS

(Overtopping, Wave Damage, Cracking, Slips, Structural Failure)
(Slides, Slumping, Increased or New Seepage, Piping, Sandboils)
(Other abnormal signs or behaviour)



Be alert to potential developments and maintain close vigilance during extreme events or perceived abnormal behaviour of the dam



Maintain safety requirements at all times during response actions



Take actions as outlined in this emergency response flip chart

EMERGENCY EVENTS AND/OR INCIDENTS

MAJOR STRUCTURAL FAILURE



**DAM SAFETY
EMERGENCY PLAN**

HAS ROUTINE CHECK DETECTED ANY EMBANKMENT MOVEMENT, SLIPS, INTERNAL OR EXTERNAL EROSION?



ARE THERE ANY SIGNS THAT THE DAM MAY FAIL?*

*If unsure, notify emergency contacts to place them on alert. Remember that once started, progress to failure may be rapid.



YES



NO

EVALUATE EXTENT OF DAMAGE AND ADVISE EMERGENCY RESPONSE PERSONNEL IF UNCONTROLLED RELEASE OF WATER IS POSSIBLE



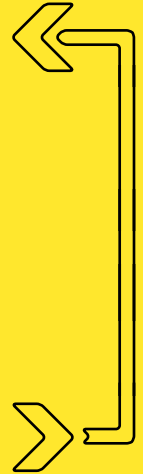
IMMEDIATELY CONTACT POLICE, STATE EMERGENCY SERVICE, CONSULTING ENGINEER, LOCAL COUNCIL. REFER TO CONTACT NUMBERS PAGE



RECORD EVENT (TIMES, PHOTOGRAPHS, NOTES, VIDEO, COMMUNICATIONS LOG AND MAINTAIN COMMUNICATIONS)



INITIATE DAMAGE CONTROL IF SAFE TO DO SO

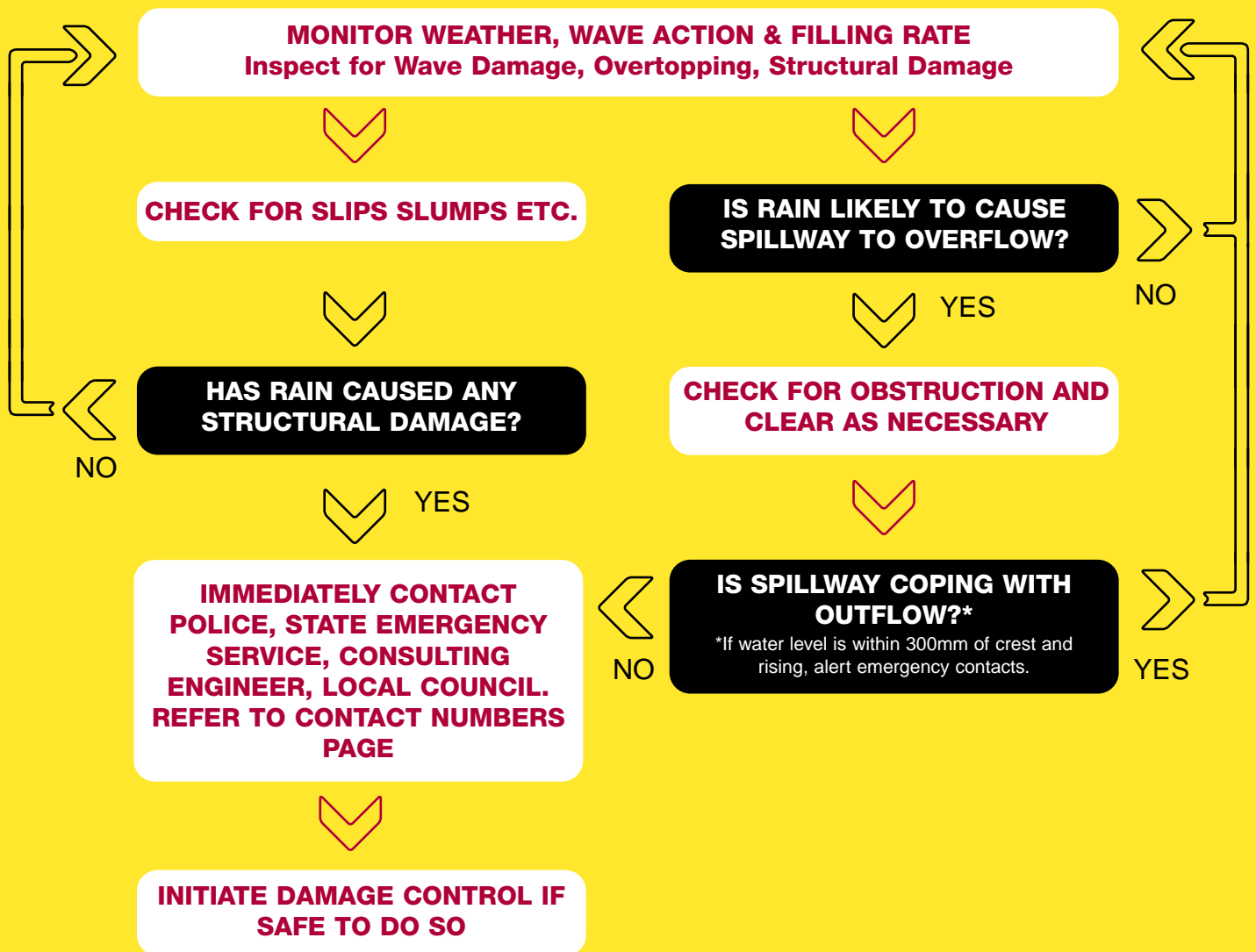


MAJOR STRUCTURAL FAILURE

HIGH RAINFALL OR STORM EVENT



DAM SAFETY EMERGENCY PLAN

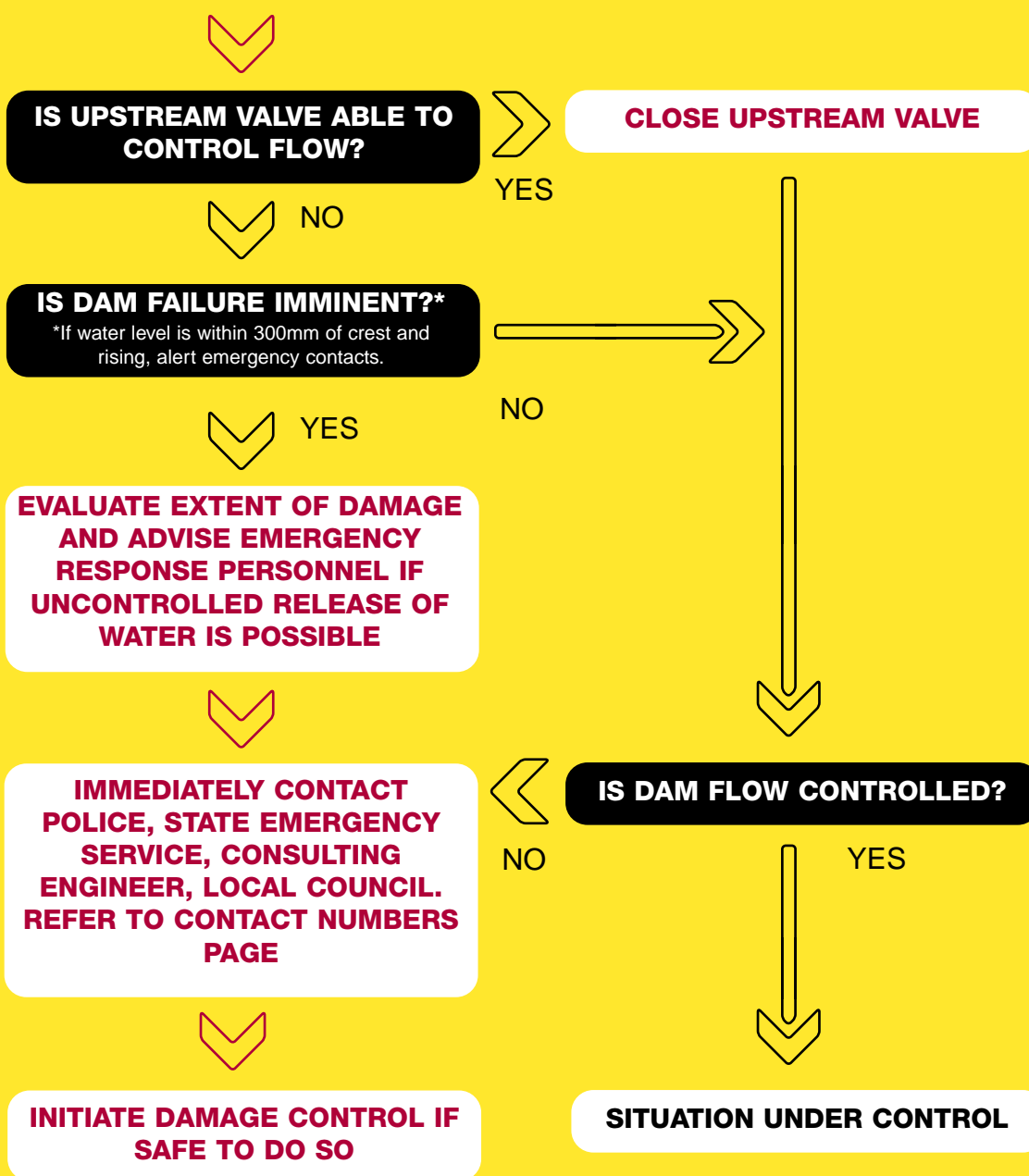


HIGH RAINFALL OR STORM EVENT

OUTLET WORKS FAILURE



ASSESS SITUATION AND IDENTIFY FAILURE MODE



OUTLET WORKS FAILURE



ACCESS MET. BUREAU WEATHER REPORTS – INSPECT DAM FOR OVERTOPPING, LEAKAGE, EROSION OR OTHER PROBLEMS



IS THERE DAMAGE TO SPILLWAY, EMBANKMENT OR OUTLET?*

*Damage may be from wave action or uprooted trees.

Check communication links.



NO

IF INITIAL INSPECTION AT NIGHT, FOLLOW-UP IN DAYLIGHT



NO



YES

IS DAMAGE MAJOR OR LIKELY TO BECOME MAJOR?*

*If unsure, notify emergency contacts to place them on alert. Remember that once started, progress to failure may be rapid.



NO

ARE HIGH WINDS EXPECTED?



YES



YES

IMMEDIATELY CONTACT POLICE, STATE EMERGENCY SERVICE, CONSULTING ENGINEER, LOCAL COUNCIL. REFER TO CONTACT NUMBERS PAGE

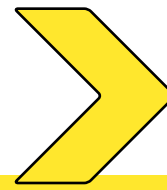


As required

INCREASE SURVEILLANCE REPORT ANY CHANGES



INITIATE DAMAGE CONTROL IF SAFE TO DO SO



**INSPECT DAM IMMEDIATELY EARTHQUAKE EVENT IS FELT/NOTIFIED
AND MAINTAIN VISUAL MONITORING FOR 24hrs**



**IS THERE DAMAGE TO
SPILLWAY, EMBANKMENT OR
OUTLET?***

*Damage may be from embankment subsidence,
dam breach or overtopping.



**IF INITIAL INSPECTION AT NIGHT,
FOLLOW-UP IN DAYLIGHT**



**IS DAMAGE MAJOR OR LIKELY
TO BECOME MAJOR?***

*If unsure, notify emergency contacts to place them on
alert. Remember that once started, progress to failure
may be rapid.



**IMMEDIATELY CONTACT
POLICE, STATE EMERGENCY
SERVICE, CONSULTING
ENGINEER, LOCAL COUNCIL.
REFER TO CONTACT NUMBERS
PAGE**



**INITIATE DAMAGE CONTROL IF
SAFE TO DO SO**



➤ RESPONSIBILITIES

The Dam Owner is responsible for regular monitoring and visual inspection of conditions at the dam.

The Dam Owner is responsible for providing the initial timely and accurate notifications to the Police and/or State Emergency Service.

The Dam Owner is responsible for providing subsequent notification and preventative action recommendations, accompanied by appropriate emergency public information to the Police and/or State Emergency Service to assist them in making timely and accurate decisions regarding their warning and evacuation responsibilities.

➤ DAM SAFETY STATUS

The Dam Owner is required to conduct a safety evaluation of the dam and to have identified any deficiency in the dam's safety.

The Dam Owner is required to take adequate steps to reduce the potential risk of dam failure based upon the results of the safety evaluation, and to maintain an appropriate dam safety monitoring procedure.

➤ DETECTION OF EVENT

The existing monitoring installations located at the dam and observations by the Dam Owner will be used as the primary method for incident detection.

Emergency events affecting the dam will be detected primarily through visual observations made on-site.

➤ DECISION MAKING

The Dam Owner is responsible for making appropriate dam safety related decisions based on advice from a Consulting Engineer where appropriate. The Dam Owner is also responsible for authorising immediate expenditure so that urgent repair work will not be delayed.

To assist the Dam Owner in making effective decisions regarding repair work on the dam, the Emergency Action Plan includes sources of plant, equipment, materials, and labour; and engineering expertise for use during an emergency. The materials portion includes sources for clay, sand, gravel, stone, riprap, sandbags, cement, plastic sheeting, etc.

➤ NOTIFICATION

Initial notification of a problem affecting dam safety shall be made by the Dam Owner to the Police, Emergency Services, Consulting Engineers and NRE if dam failure is possible or imminent.

In the event of a dam safety emergency arising, the Dam Owner shall be responsible for continuous reporting of dam status in accordance with the Emergency Action Plan.

➤ COMMUNICATION SYSTEM

Commercial Telephone: The Dam Owner's landline telephone and mobile telephone numbers:

The nearest public telephone is found at: _____

Radio: The Dam Owner has two-way radio communication facilities: Yes / No

PLAN FOR DAMAGE CONTROL



**DAM SAFETY
EMERGENCY PLAN**

**ASSESS THE SEVERITY OF THE DAM DEFECT REQUIRING DAMAGE CONTROL
RESULTING FROM STORM, FLOOD, EARTHQUAKE OR ANY OTHER FACTOR.**



IS NOTIFICATION REQUIRED?*

*If unable to secure repair services, notify emergency contacts. Remember that once started, progress to failure may be rapid.



ENACT EMERGENCY ACTION PLAN



**SELECT THE PERSONNEL, PLANT, EQUIPMENT AND MATERIALS TO ASSIST IN
DAMAGE MITIGATION/REPAIR FROM THE LISTING BELOW.**



**PERSONNEL
SOURCES**



**PLANT & EQUIPMENT
SOURCES**



**MATERIALS SOURCES
EQUIPMENT**

Consulting Engineer

Name _____
Ph _____
Address _____

Labour

Name _____
Ph _____
Address _____

Equipment

Name _____
Ph _____
Address _____

Plant

Name _____
Ph _____
Address _____

Other

Name _____
Ph _____
Address _____

Clay

Name _____
Ph _____
Address _____

Sand, Gravel or Rock

Name _____
Ph _____
Address _____

Geofabric Sheet Plastic Sandbags

Name _____
Ph _____
Address _____

Other

Name _____
Ph _____
Address _____

PLAN FOR DAMAGE CONTROL

2003 CALENDAR



**DAM SAFETY
EMERGENCY PLAN**

Sun Mon Tue Wed Thu Fri Sat

JANUARY			1		2	3	4
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	

FEBRUARY							1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	

MARCH	30	31					1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29

APRIL			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30			

MAY					1	2	3
	4	5	6	7	8	9	10
	11	12	13	14	15	16	17
	18	19	20	21	22	23	24
	25	26	27	28	29	30	31

JUNE	1	2	3	4	5	6	7
	8	9	10	11	12	13	14
	15	16	17	18	19	20	21
	22	23	24	25	26	27	28
	29	30					

Sun Mon Tue Wed Thu Fri Sat

JULY			1	2	3	4	5
	6	7	8	9	10	11	12
	13	14	15	16	17	18	19
	20	21	22	23	24	25	26
	27	28	29	30	31		

AUGUST	31					1	2
	3	4	5	6	7	8	9
	10	11	12	13	14	15	16
	17	18	19	20	21	22	23
	24	25	26	27	28	29	30

SEPTEMBER		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30				

OCTOBER			1	2	3	4	
	5	6	7	8	9	10	11
	12	13	14	15	16	17	18
	19	20	21	22	23	24	25
	26	27	28	29	30	31	

NOVEMBER	30						1
	2	3	4	5	6	7	8
	9	10	11	12	13	14	15
	16	17	18	19	20	21	22
	23	24	25	26	27	28	29

DECEMBER		1	2	3	4	5	6
	7	8	9	10	11	12	13
	14	15	16	17	18	19	20
	21	22	23	24	25	26	27
	28	29	30	31			

