



AUSTRALIAN RAIL TRACK CORPORATION LTD

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Engineering Practices Manual Civil Engineering

Preparation for Flood Emergencies

RAP 5221

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1 Purpose

It is a long standing policy that each Area is to have an emergency plan for dealing with major flooding that would effect train operations.

This document sets out the general policy for maintaining resources to meet those emergencies.

2 Reason and nature of change

Document reissued as ARTC Engineering Practice.

3 General

It must be understood that major flooding can occur with little warning and quick action, when required, will be necessary without time to prepare.

The "Flood Plan" is to be specially documented and regularly updated. Copies are to be issued to each Team Manager and other senior staff in particular, a copy is to be part of "Handover Notes" for relief officers.

The Area staff should be the railway source for forecasting the effect of a flood on railway facilities and be the adviser to Network Control. The Delivery Manager or nominated representative is to arrange this service when a flood is forecast by local authorities.

4 Historical Information

The records of previous floods in each river in the Area are to be kept up to date.

Frequency and severity of flooding are usually available on Working Plans and office files. Other instructions require all flood heights to be recorded.

Local Councils and other local bodies can provide a wealth of information on flood

heights that will allow up river peak information to be related to timing and severity of railway bridge flooding levels.

Local papers and local residents can also advise on times the river takes to rise, water movements and other essential local knowledge.

Bureau of Meteorology Rainfall patterns assist in assessing runoff rates, saturation figures as well as river peaks and times.

From all available information a river flow chart should be prepared that will provide and accurate forecast of the effect of future floods in the river systems on railway facilities once upriver reports are received.

5 Resources plan

Based on previous flood information the resources needed to repair flood damaged track and structures can be assessed.

For washouts the following is recommended:

- Supplies of reusable released sleepers are to be kept readily stacked for transport for use as pigsties etc in washaways.
- A number of timber bridge girders 300 x 300 x 5000mm long for temporary spans, should be stacked ready for loading in a central depot.
- Wedges for stabilising structures and associated bolts and miscellaneous items, should be available in an "Emergency Shed".

For rail damage, stacks of rails (white) of 40kg/m minimum weight of standard lengths complete with fishplates and bolts should be stacked ready for loading in a central depot with rail access.

Equipment for repairing embankments is not considered necessary but records of contractors throughout the Area and their equipment is to be kept available for quick reference.

Staff resources are to be preplanned to ensure that essential activities can be implemented quickly.

As well as ensuring staff can be contacted, the following duties may be pre-allocated:

- Organising food supplies and meal preparation
- Manning the Area Office
- Organising emergency stores
- Patrolling potential flooding areas

6 Review

Regular reviews of resources and the actual plan are to be made by the Delivery Manager or nominated representative.

Officers responsible for maintaining stocks are to be required to certify adequacy each six months.

7 Staff residences

It is essential that all officers are available to attend to their required work responsibilities during Emergency periods.

To this end, staff nominated as critical in the Area plan are required to review the location of their private residence. If it is located in any recognised flood plain or subject to any possible flood damage, an agreed emergency plan to protect families and property is to be arranged as part of the Area plan.

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