

# Sediment

## FARM LAYOUT

**The location of infrastructure such as access tracks and fences can have a significant effect on runoff patterns leading to infrastructure damage and erosion of adjacent areas. Well-sited and well-constructed property improvements will provide many years of low maintenance service with minimal adverse impacts.**

**The direction in which a track or fence is orientated to the contour has significant implications for runoff management..**

If the proposed development is on a floodplain, it is necessary to show that farming practices and infrastructure will not lead to an increase in adverse consequences from flooding. Farm developments should not impede or channel water flow, causing it to develop increased erosive velocities resulting in adverse off-farm impacts.

Management strategies:

- identify flood prone land that is, or may be, subject to erosion
- maintain maximum ground cover where possible, and avoid intensively cultivating or leaving soil bare during the wet season
- keep waterways or flow channels grassed or vegetated
- protect stream banks with vegetation, especially in areas where flood flows re-enter the stream
- design farm infrastructure to allow natural drainage lines to function so that natural flows are unimpeded
- to avoid any damaging increase in flood heights or an increase in velocity to erosive levels, site and align structures such as fences and roads so that there is no channelling of floodwaters
- design head ditches, crop furrows and tail drains to minimise their impact on flood flow concentration and flow direction
- grow crops in strips at right angles to the water flow, if possible, to spread the flow and reduce velocities, thus allowing silt to be deposited.

Infrastructure such as buildings, roads and channels should be designed and located so as to avoid erosion, flooding, ponding and impact on water bodies:

- design paddock size and layout recognising the capability of the land type and the landform
- design and locate fences so that overland flow is not impeded
- design above ground structures (roads, buildings, water storage ring tanks) to minimise concentration, diversion or restriction of flood flows
- avoid development on stream banks
- construct water storages to prevent leakage
- protect riparian areas from grazing (or overgrazing).

*Information in this fact sheet has been obtained from the following resource and is gratefully acknowledged.*

*Draft Chapter 14 Soil Conservation in Horticulture, Bruce Carey, retired Soil Conservation Officer DSITIA, and the Land and Water Management Plans Reference Manual June 2002 (Reprinted July 2007). State of Queensland, Department of Natural Resources and Water.*

*Disclaimer: This information is provided as a reference tool only. Please seek professional advice.*

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