

Changes in the landscape over time: impacts and alternatives

Local events	Impacts on the environment	Sustainable alternatives
Obtaining timber	Disproportionate clearance of specific species and areas resulting in loss of habitat for wildlife dependant on those areas.	Ensure target species and areas are allowed sufficient time to regenerate. Start plantations of target species in cleared areas rather than taking them from the wild.
Farming	Disproportionate clearance of wet areas with rich soils resulting in loss of habitat for wildlife dependant on those areas. Grazing causes loss of topsoil, erosion in creek lines and damage to native vegetation if animals are allowed to graze bush areas. Irrigation can cause salinity or a reduction in groundwater levels. Chemical use can pollute creeks and rivers.	Retain and look after patches of native vegetation on farms. Fence creek lines, native vegetation and eroded areas to prevent stock access. Grow crops which require little extra water. Use chemicals responsibly.
Construction of roads	Creation of hard surfaces which produces fast moving rainwater run-off. Run-off can cause erosion or pollution of watercourses when oils and rubber residues are washed off the road. Road construction often requires the removal of some native ground flora, shrubs or trees.	Provide wildlife tunnels to allow safe animal crossing. Maintain roadside vegetation, as this can help to filter some pollutants. Try to go around areas of vegetation in the construction process - not straight through.
Construction of houses	Home sites often require the removal of native vegetation prior to construction for roads, garden, sheds and fire prevention. Residents produce sewage and solid waste which can cause environmental harm if not managed properly. Roof structure provides a hard runoff surface which can cause erosion if water is piped directly to creeks. Residents often have pets which can harm wildlife. Several garden plants can become environmental weeds.	Disallow building in bush areas (this will also help minimise fire risk). Ensure home is connected to a fully maintained septic system or sewerage system in suburban areas. Put in rainwater tanks for capturing roof runoff - use in the house. Bring animals indoors at night time or confine to house or back yard at all time. Avoid planting environmental weeds in gardens.
Rural subdivision	Property size is reduced and turned into smaller holdings which often require vegetation clearance for roads, fences, garden, sheds and fire prevention. Reduces connectivity of continuous tracts of vegetation. Same impacts as construction of houses.	Disallow building in bush areas (this will also help minimise fire risk). Ensure home is connected to a fully maintained septic system or sewerage system in suburban areas. Bring animals indoors at night time or confine to house or back yard at all time. Avoid planting environmental weeds in gardens. Share roads where possible.

Changes in the Landscape Over Time: Impacts and alternatives

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Urbanisation and high density living,	Huge increase in the number of run-off surfaces for roads, footpaths, roofs, and paving. Results in fast moving polluted run off flowing into creeks causing erosion. Usually vegetation clearance required for urban developments. Large urban developments often cause huge quantities of sediment to be washed into local creeks during the earthmoving and construction phase Same impacts as for construction of houses.	Minimise paving and hard surfaces wherever possible. Leave creeks in natural state - do not line with concrete. Retain as much native vegetation as possible. Employ rigorous street sweeping program during development phase. Same alternatives as for rural subdivision.
Construction of industrial and commercial precincts	Same impacts as for urbanisation and high density living but with greater risk of pollution because of a higher concentration of potential pollutants in one area. Some large industries are licensed to pump waste into rivers and the ocean. Shopping centre car parks are a large source of pollution through car leaks, litter, cigarette butts, all accumulating on the run-off surface. These areas are often completely devoid of any native vegetation.	Impose high standards of environmental management on business and industry including compulsory regular clean up of all runoff surfaces. Provide spill management equipment and training to staff. Provide bins and ashtrays and impose fines for littering. Encourage businesses to retain or instate indigenous vegetation on their sites.
Modern horticulture	The conversion of grazing land into vineyards or similar has recently led to further loss of remaining vegetation as vineyards creep into areas of remnant vegetation. Ground flora between vines is often completely removed, causing erosion problems and loss of species. Some crops, such as olives, are environmental weeds which can escape and begin to take over areas of native vegetation.	Allow a buffer around patches of vegetation to protect it from mechanical disturbance, disease and chemical drift. Do not construct vineyards on steep hills where erosion risk is higher. Impose conditions on risky crops such as olives whereby crops must be netted to stop birds from spreading seed. Do not allow olive crops within 10km of significant bush areas.
Fire prevention	Many people like to live in bush land areas, but for fear of fire or through council regulations significant areas of vegetation are removed to buffer houses from potential bushfire damage. Many of our National Parks have large areas of vegetation removed for fire tracks and breaks.	Disallow building in or near areas of dense vegetation. Build in cleared areas instead. There is less than 15% of indigenous vegetation left locally (less than any other bioregion of Australia bar one). We cannot afford to lose any more. Ensure fire tracks and breaks are in the most effective positions within a park and close any unnecessary tracks.