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[Abstract]: This poster outlines the key research questions and methodologies used in a project investigating the relative roles of landscape-scale (land- and water-use regimes), patch-scale (management regimes) and population-scale (interspecies competitive regimes) change on the health and function of Eucalyptus tereticornis / E. camaldulensis riparian woodland communities of the Condamine floodplain (eastern Darling Downs, southern Queensland), and presents preliminary analyses of the floristic composition and condition of these communities. The Upper Condamine River is a regulated river system whose regulated flow regime is significantly altered from natural flows in terms of the volume, frequency and duration of in-stream and flooding flows; additional harvesting of groundwater and overland flows, coupled with high inherent regional climatic variability and potential climate change, indicate that water availability may be a key limiting factor in the long-term persistence of these ecosystems. A key hypothesis of the research is that widespread tree decline within these woodlands may indicate that water availability in these water-dependent habitats is approaching critical levels, exacerbated by significant infestation by the introduced weed lippia Phyla canescens, a highly-efficient competitor. The study takes a multi-dimensional approach (including time series streamflow and GIS-based spatial and temporal analysis, assessments of current community composition and condition, experimental manipulation to investigate mechanisms contributing to the competitive success of lippia, and an investigation of landholder responses to both eucalypt dieback and lippia infestation) aimed at developing an integrated understanding of the drivers and mechanisms of ecosystem decline and at deriving empirical information which will contribute to future land and water management decision-making.