A statutory duty of care has been suggested as an approach to complement ‘command and control’ regulation, and voluntary measures that have been widely used to achieve biodiversity conservation. Although there has been intermittent discussion about a duty of care for biodiversity, little progress has been made towards defining how it might operate at a regional scale. A preliminary survey of rural landholders identified important limitations in the social acceptability of a statutory duty of care. More detailed testing through semi-structured interviews with a range of stakeholders has been carried out in a Victorian case study, based around a potential implementation framework developed during this research.