Sector	Geographic Area	Ecosystem	Impacts	Ideas to manage	Adaptation Research	Impediment
State forest	Blue Tier and Weldborough pass	Rainforest/mixed forest	Forestry, invasive speciesm fire frequency	Make it a national park/refugia	Full assessment of the biodiversity	Political will
Private	Northern Midlands	Large intact grassland and grassy woodland	Fragmentation, agriculture, plantation, irrigation, clearance	Covenant, stewardship, rate rebates, trade off carbon offsets	Prioritising connectivity, restoration	Political will, tenure, productive capacity
Private (2-3 owners)	Carlton Bluff	Casuarina forest (huge pure stand)	Subdivision, fragmentation, fire	NGO purchase, zoning, covenant	Conservation significance	Invasive species –heath area
Protected area	Athur Pieman	Coastal system	4WD, cattle	Exclude 4WDs and cows		Will
PWS	Central plateau – glacial plateau wetlands	Freshwater ecosystem and highland bogs, sphagnum and fringing herbfields	Drying, changed hydrology, potential for weed invasion, increased fire risk, species loss, especially endemic fish and inverts	“another leaky canal”, protect remaining remnants	Identify refugia	

	Freshwater ecosystems	Frogs, platypus	Extreme events (drought)		Lots of research questions	
Private and NGO	Egg Islands, Huon river		Sea level rise	Identify other priority areas to be conserved, same values but with more resilient planning rules	Investigation of impacts of sea level rise, habitat retreat	Education, information
Private and public land	Coastal	Saltmarsh				
		Ground water dependent ecosystems			Identify significant groundwater dependent ecosystems	

Sector	Geographic Area	Ecosystem	Impacts	Ideas to manage	Adaptation Research	Impediment
Private land	Midlands	Grasslands	Fragmentation and ongoing stress	Restoration of degraded grasslands → native, but only just vs. introduced pasture	Grazing management, positives/negatives of replanting and sowing, managing weeds, identify threshold for recovery, education package, invert pop'n and microbes	Cost, transferring idea for mainland system to Tasmania, management of adjacent areas for weeds, finding suitable landowners
State reserve	Interlakes (Lakes cresent and Sorell)	Inland freshwater lakes and frinding marsh	Water intake for irrigation, invasion by carp	Limit water uptake, eradicate carp	Carp management by inland fisheries service	Lobbying, legislations, lack of political will (Stewart Blackhall DPIPWE)
Nature reserve	Pitt water near Sorell	Estuarine wetland	Reduced water flow and increased urbanisation	Restore/improve environmental flows from all tributaries	Sustainability of water offtake	Lobbying, legislations, lack of political will (Stewart Blackhall DPIPWE)
Nature reserve	Pitt water near Sorell	Estuarine wetland	Rise in sea level, decreased salt marsh	Protect migration areas	Identify areas for saltmarsh migration	Private property, attitudes, limits of planning schemes

National Park	Mt Field	Deciduos Beech	Increased incidence of drought, increased risk of fire		What climate factors might affect deciduous beech the most?	
All	All	All	Changed timing in germination, cases impacting species regeneration	Model germination responses, try to understand reproductive strategies	Manage fire and disturbance to promote regeneration	Money, lack of knowledge, time, scale
Midlands, NE		Ephemeral wetlands	Becoming more ephemeral	Adaptive water management	What is the tipping point at which point they are stuffed, seed germination, soil seed bank, grazing effects	Time, money
		Rivers	Changed morphology from extreme events	Slow water velocity, particularly in urban environments	Geomorphology, artificial or rehabilitated flood plains	Restricted area to let floods sit rather than flow

National park, world heritage area	Mt Laperouse, Mt Rufus, Mt Bobs	Alpine on sandstone	Drought, fire, climatic creep of frost, wind erosion	Monitoring, management, protection from people, reduce impacts	Monitoring, survey of sites	Resource prioritisation
Tasmanian flora and fauna	Tasmania	All ecosystems	Climate change	Wildlife parks, botanical garden annexes	Building technological and administrative capacity, where/how funding	Decreased imagination and willingness
Mixed land tenure	Huon estuary	Estuarine, saltmarsh, Eu. Orate	Sea level rise, storm surges, land conversion, clearance, development, less water	Changes to planning schemes, control weed incursion, community education, catchment management	Inundation, erosion, social research (about changing attitudes)	
Western Tasmanian national parks	Dry lightening	Rainforest, conifers and alpine	Exceptional fires, catastrophic for fire sensitive vegetation	Targeted fire suppression	Climatology science of dry lightening	Lack of identification

Gondwana refugia	Weldborrough pass WHA, Mala Island	Rainforest/conifer communities	Increased fire risk, increased drought, increased weed and novel diseases	Active targeted management for fire, weeds and disease	Identification, translocations, ability to survive climate change, paleo vs future	Lack of GIS layers
Private, crown land, reserves	South Esk catchment	Riparian freshwater, grassy woodland, dry forest, wet forest	Land clearing, weeds, plantations, hydrologic change	Weed control, restoration, catchment planning	Hydrological models, biodiverse plantings, intergrated catchment management	Resources
Urban fringe	Mt Nelson Bicentenial Park (300ha)	Dry woodland, dry rainforest (on climatic knife-edge)	European wasps, edge effects, burning, weeds, increased productivity in warm/wet years = increased flammable biomass	'friends of' group, bushcare group	Phenology, mapping and monitoring, control and elimination of wasps	Time, money, education, distilling out the climate signal against other threats
Private land	Midlands	Wetlands	Conversion, hydrology change, drying, plants/wildlife	Protection, private land stewardship, translocation of species, top up water through irrigation schemes	Ecological character descriptions/snapshots restricted now, long term study to monitor components of wetland (eg. inverts), triage – focus more on protecting most resilient or most biodiverse	

Public and private land	NE and SW Tasmanian buttongrass moorlands		Burrowing crayfish habitat depletion due to water tables, increased fire risk	Manage water levels from existing storages, translocation	Captive breeding program, adaptive capacity under drought conditions	Cost, level of interest in species, keystone species in buttongrass moorlands
	Mole creek	Karst. (caves)	Warming, invasive species (eg bats due to warming temperature in caves), predators, faeces impacts		Hydrology of groundwater dependent ecosystems	
Nature reserve, ramsar	Orienton lagoon	Marine wetlands, saltmarsh	Inundation, storm surge	Identification of areas of retreat, catchment scale land management	Social research into farmer's management, identify areas for restablishment and protection, research on breeding in captivity	Land availability for habitat, land allocation (planning system) for habitat