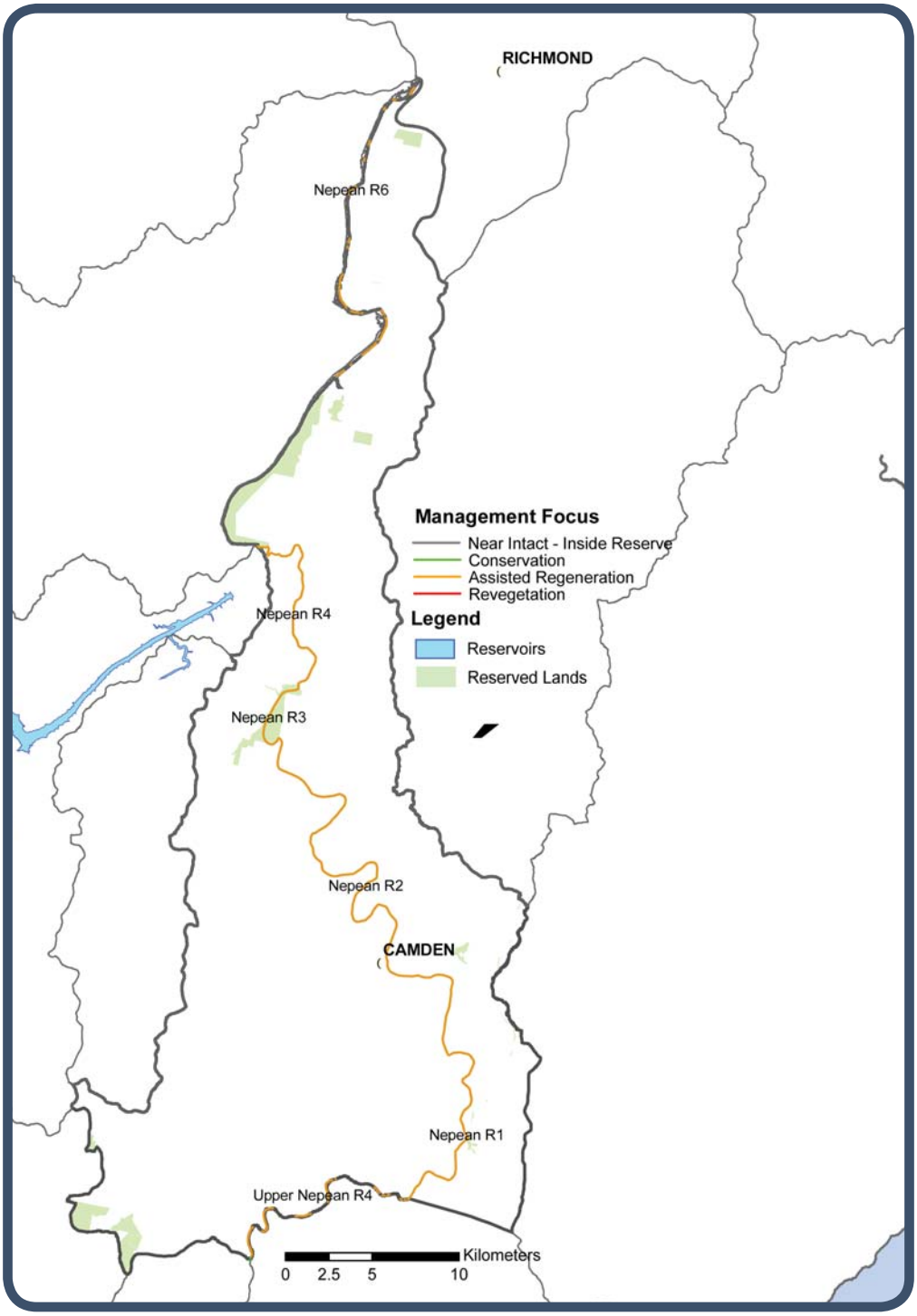

Nepean River Subcatchment

The Nepean River subcatchment is located downstream of the Upper Nepean subcatchment, which contains significant dams and protected water supply catchments, and joins the Hawkesbury River (freshwater) catchment at its confluence with the Grose River. A significant section of the river, known as the Nepean Gorge, has the Greater Blue Mountains World Heritage Area on the east and west banks. The reserved lands on the west bank fall into the Erskine Creek subcatchment and are shown on the relevant map.

Outside the gorge area, the floodplains and riparian zones have been extensively developed to support agricultural and rural-residential properties and there are also significant urban and industrial areas in this subcatchment, including the city of Penrith. Stormwater, agriculture, mining and water extraction are all having adverse affects throughout the reaches.

There are 11 weirs located on the Nepean River that are severely regulating the natural flows. The river has been segmented into a series of 'weir lakes' rather than a freely flowing river and is also impacted by dams in the Upper Nepean catchment.

There remains natural bushland in the lower reaches and isolated pockets in the mid reaches. Bents Basin State Conservation Area is one such example and is a popular recreational area for the people of Sydney.

Reach Management Recommendations – Nepean River Subcatchment

Reach Name	Reach Description	Riparian Land Management Category	Reach Values	Reach Threats	Reach management recommendations (Planning, Education, Works, Monitoring, Institutional)
Nepean R1	From confluence of Cataract River to bridge at Menangle upstream of the Camden township	Assisted Regeneration	• Good riparian vegetation cover • Significant vegetation community (Cumberland Shale Sandstone Transition Forest; Cumberland Shale Hills Woodland; Cumberland River Flat Forest) • Popular recreational fishing • Popular non-motor boating • Identified Flagship Species (Platypus; Eagles) • Significant irrigation water supply	• Modified / engineered channel (de-snagging, weirs, sand mining) • Aquatic weed outbreaks (Alligator Weed, Salvinia, Water Hyacinth) • Damaging access (stock) • Barriers to ecosystem functioning (numerous weirs) • Flow regulation • Flow extraction • Long-wall mining underneath river	• Management of aquatic weeds • Aquatic condition and connectivity improvement (P,W) • Management of stock impacts on waterways (W) • Encourage adoption of sustainable land management practices in riparian lands (E) • Water quantity / flow management (I) • Increase community capacity for environmental restoration (E)
Nepean R2	From Menangle to Bents Basin gorge including Camden urban area	Assisted Regeneration	• Good riparian vegetation cover • Significant vegetation community (Cumberland Shale Sandstone Transition Forest; Cumberland Shale Hills Woodland; Cumberland River Flat Forest) • Popular recreational fishing • Popular non-motor boating • High public recreation access • Identified flagship species (Camden White Gum) • Significant irrigation water supply • Significant community based environment activity	• Modified / engineered channel (sand mining) • Aquatic weed outbreaks (Alligator Weed, Salvinia, Water Hyacinth) • Damaging access (stock, and also humans at public access points) • Barriers to ecosystem functioning (weirs) • Flow regulation • Flow extraction • Water quality • Urban development altering hydrology and sediment input to river • High nutrient runoff from intensive agriculture on floodplain Action Triggers • Severe downstream impact – STP nutrient input (West Camden STP)	• Management of aquatic weeds • Management of stock impact on waterways (W) • Encourage adoption of sustainable land management practices in riparian lands (E) • Manage human impacts at public recreation river access points and along foreshores (E,W) • Aquatic habitat condition and connectivity improvement (P,W) • Water quantity / flow management (I) • Maintenance of recreational values – recreational water quality (M) • Urban water quality and sediment management (P,W) • Rural water quality and sediment management (W) • Water quality / nutrient management (I) • Maintain existing community based environment activity (E,P)

Reach Management Recommendations – Nepean River Subcatchment

Reach Name	Reach Description	Riparian Land Management Category	Reach Values	Reach Threats	Reach management recommendations (Planning, Education, Works, Monitoring, Institutional)
Nepean R3	Bents Basin Gorge	Assisted Regeneration	• Good riparian vegetation • Good river condition • World Heritage Area (small section between Nortons Basin and Warragamba River confluence) • Significant vegetation community (Cumberland Shale Sandstone Transition Forest; Cumberland Shale Hills Woodland; Cumberland River Flat Forest; Cumberland Shale Hills Woodland) • Popular recreational fishing • Popular non-motor boating • Popular swimming • High public recreation access • Identified flagship species (Platypus; Bass; Camden White Gum) • River based tourism contributes to regional economy	• Aquatic weed outbreaks (Alligator Weed, Salvinia, Water Hyacinth) • Damaging access (humans) • Flow regulation • Flow extraction • Water quality	• Management of aquatic weeds (P,I) • Manage human impacts at public recreation river access points and along foreshores (P,W) • Water quantity / flow management (I) • Water quality / nutrient management (I) • Maintenance of recreational values - recreational water quality (M) • Increase community capacity for environmental restoration (E) • Develop conservation management agreements to protect remnant riparian vegetation (P)
Nepean R4	Bottom of Bents Basin to confluence with Warragamba River, including Nortons Basin	Assisted Regeneration	• Good riparian vegetation • Good river condition • Popular recreational fishing • Popular non-motor boating • Popular swimming (Douglas Park) • Identified flagship species (Platypus; Bass; birds; echidnas) • Significant irrigation water supply	• Occasional aquatic weed outbreaks • Barriers to ecosystem functioning • Flow regulation • Flow extraction • Potential threat from subdivision and long wall mining	• Management of aquatic weeds (P,I) • Aquatic habitat condition and connectivity improvement (P,W) • Maintenance of recreational values – recreational water quality (M) • Increase community capacity for environmental restoration (E) • Develop conservation management agreements to protect remnant riparian vegetation (P)

Reach Management Recommendations – Nepean River Subcatchment

Reach Name	Reach Description	Riparian Land Management Category	Reach Values	Reach Threats	Reach management recommendations (Planning, Education, Works, Monitoring, Institutional)
Nepean R5	From bottom of Nortons Basin to end of Nepean Gorge	Assisted Regeneration	• Good riparian vegetation • Good river condition • World Heritage Area (most of reach length) • Significant vegetation community • Popular recreational fishing • Popular motor boating • Popular non-motor boating • Flagship species (Sea Eagle)	• Aquatic weed outbreaks (Alligator Weed, Salvinia, Water Hyacinth) • Flow regulation • Flow extraction	• Management of aquatic weeds (P,I) • Water quantity / flow management (I) • Maintenance of recreational values – recreational water quality (M) • Develop conservation management agreements to protect remnant riparian vegetation (P)
Nepean R6	End of Nepean gorge to confluence with the Grose River including Penrith and Penrith Lakes	Assisted Regeneration	• Good riparian vegetation • Wetlands of regional significance • Significant vegetation community (Cumberland Shale Sandstone Transition Forest; Cumberland Shale Hills Woodland; Cumberland River Flat Forest) • Popular recreational fishing • Popular motor boating • Popular non-motor boating • Popular swimming • High public recreation access (Penrith city including Tench and Weir Reserves) • Identified flagship species (Australian Bass, birdlife) • Significant irrigation water supply • River based tourism contributes to regional economy • Significant community based environment activity	• Modified / engineered channel (extensive sand mining; Penrith Weir; Penrith Lakes) • Extremely high woody weed invasion (willows, Gleditsia, Privet, Lantana, Tree of Heaven, Pampas Grass, Vines) • Frequent aquatic weed outbreaks (Salvinia, Water Hyacinth, Alligator Weed) • Damaging access high – stock on private land and humans at public access points) • Barriers to ecosystem functioning (Penrith Weir) • Flow regulation • Flow extraction • Water quality • Urban land use – Stormwater nutrient and sediment runoff degrading river.	• Removal/replacement of exotic riparian vegetation (W) • Riparian wetland management • Management of aquatic weeds • Management of stock impact on waterways (W) • Encourage adoption of sustainable land management practices in riparian lands (E) • Manage human impacts at public recreation river access points and along foreshores (E,W) • Aquatic habitat condition and connectivity improvement (P,W) • Water quantity / flow management (I) • Water quality / nutrient management (I) • Urban water quality and sediment management (I,W) • Maintenance of recreational values – recreational water quality (M) • Maintain existing community based environmental activity (E,P)