



Cowan Creek / Pittwater Subcatchments

Cowan Creek is a tidal subcatchment of the Hawkesbury River and a typical drowned river valley. Almost all of the catchment is in reserved land (Ku-ring-gai Chase National Park).

The headwaters of waterways in the Cowan subcatchment are heavily urbanised, while the lower reaches are generally bushland and are very popular for recreational boating and fishing. Lovers Jump Creek is considered to be one of the most degraded creeks, in terms of water quality, in the Ku-ring-gai Council area.

Pittwater subcatchment is dominated by tidal influences and estuarine waters and the whole of the western side of the subcatchment is largely reserved as bushland in the Ku-ring-gai Chase National Park. Well vegetated sandstone valleys are the major landscape characteristic interspersed with small local foreshore settlements such as Elvina Bay. The southern and eastern side of Pittwater contains significant areas of urban development at Church Point, Mona Vale (which is also a light industrial area), Newport and Avalon. Drainage from these areas is split by a ridge along the peninsula with drainage west to Pittwater and east to northern beaches such as Avalon, Whale and Palm Beach.

Pittwater is one of the highest social and economic value areas of the catchment. Intensive recreation such as boating has been identified as a threat to water quality and the health of Pittwater.

Significant community based environment activity occurs in the Pittwater subcatchment, for example along McCarrs Creek.

Reach Management Recommendations – Cowan Creek / Pittwater River Subcatchments

Reach Name	Reach Description	Riparian Land Management Category	Reach Values	Reach Threats	Reach management recommendations (Planning, Education, Works, Monitoring, Institutional)
Cowan R1	Headwater section of Cowan Creek to where urban land use stops and the creek enters bushland	Assisted Regeneration	<ul style="list-style-type: none"> • Good riparian vegetation • Significant vegetation community – Blue Gum High & Sydney Swamp Forest • Flagship Species – swamp wallabies • Significant irrigation water supply to golf course 	<ul style="list-style-type: none"> • Modified / engineered channel – urbanisation, golf course, sediment traps and culverts • Barriers to ecosystem functioning • Poor water quality 	<ul style="list-style-type: none"> • Aquatic habitat condition and connectivity improvement (P,W) • Urban water quality and sediment management (I,W) • Increase community capacity for environmental restoration (E)
Cowan R2	From end of urban and escarpment area down to the tidal limit upstream from Crosslands	Assisted regeneration	<ul style="list-style-type: none"> • Good riparian vegetation • Wetlands of local significance • Significant vegetation community • Ku-ring-gai Chase National Park • Identified flagship species (Australian Bass, Giant Burrowing Frog) 	<ul style="list-style-type: none"> • Aquatic weed outbreaks (<i>Egeria densa</i>, Creeping Buttercup) • Flow modification 	<ul style="list-style-type: none"> • Management of aquatic weeds (P,I) • Riparian wetland management (P,W) • Water quantity / flow management (I) • Increase community capacity for environmental restoration (E)
Cowan Tidal	Cowan Tidal reach	Assisted Regeneration	<ul style="list-style-type: none"> • Good riparian vegetation • Wetlands of local significance • Significant vegetation communities (Coastal Sand Forest; Sydney Turpentine Ironbark Forest; Warm Temperate Layered Forest; Temperate Littoral Rainforest; Coastal Freshwater Lagoon) • Kur-in-gai Chase National Park • Popular recreational fishing • Popular motor boating • Popular non-motor boating • Popular swimming • High public recreation access • River based tourism contributes to regional economy • Identified flagship species (Hairtail) 	<ul style="list-style-type: none"> • Damaging access – human access points at specific locations • Flow regulation • Boating intensity <p>Action Triggers</p> <ul style="list-style-type: none"> • Severe immediate threat – high recreational use 	<ul style="list-style-type: none"> • Manage human impacts at public recreation river access points and along foreshores (P,W) • Development and implementation of Boating Management Plan for the Hawkesbury River (P) • Maintenance of recreational values (P,M) • Riparian wetland management (P,W) • Increase community capacity for environmental restoration (E)

Reach Management Recommendations – Cowan Creek / Pittwater River Subcatchments

Reach Name	Reach Description	Riparian Land Management Category	Reach Values	Reach Threats	Reach management recommendations (Planning, Education, Works, Monitoring, Institutional)
Lovers Jump R1	Through urban area of East Wahroonga to point where it enters bush	Revegetation	<ul style="list-style-type: none"> • Significant vegetation community (Blue Gum High Forest) • Identified flagship species (Blue Gum High Forest) 	<ul style="list-style-type: none"> • Modified / engineered channel (some piping and localised stormwater armouring works) • High woody weed invasion • Barriers to ecosystem functioning • Water quality • Urbanisation – sedimentation, hydrological and nutrient impacts <p>Action Triggers</p> <ul style="list-style-type: none"> • Severe downstream impact – water quality 	<ul style="list-style-type: none"> • Revegetation with indigenous riparian vegetation (W) • Removal/replacement of exotic riparian vegetation (W) • Aquatic habitat condition and connectivity improvement (P,W) • Urban water quality and sediment management (I,W) • Urban water quantity and flow management (I,W) • Increase community capacity for environmental restoration (E)
Lovers Jump R2	From start of bushland down to junction with Cockle Creek	Assisted Regeneration	<ul style="list-style-type: none"> • Good riparian vegetation • Wetlands of local significance (soaks and hanging swamps) • Significant vegetation community • Ku-ring-ai Chase National Park • Identified flagship species (Red Crowned Toadlet, Powerful Owls) 	<ul style="list-style-type: none"> • Barriers to ecosystem functioning • Flow regulation • Urbanisation – sedimentation and nutrient impacts 	<ul style="list-style-type: none"> • Aquatic condition and connectivity improvement (P,W) • Riparian wetland management (P,W) • Urban water quality and sediment management • Increase community capacity for environmental restoration (E)
Cockle R1	Headwater reach to Freeway	Assisted Regeneration	<ul style="list-style-type: none"> • Good riparian vegetation • Flagship species – water dragon; sculpture of water dragon associated with reach • Council and community environmental programs addressing stormwater litter, water quality monitoring, remediation of concrete channels. 	<ul style="list-style-type: none"> • Modified / engineered channel – piped underground at points, stormwater outlets, ovals • High woody weed invasion – large infestation of bamboo, privet • Barriers to ecosystem functioning • Poor water quality • Impacts from urban land use – significantly altered hydrology, nutrients and sediment and weeds <p>Action Triggers</p> <ul style="list-style-type: none"> • Severe downstream impact - water quality and sedimentation 	<ul style="list-style-type: none"> • Aquatic habitat condition and connectivity improvement (P,W) • Removal/replacement of exotic riparian vegetation (W) • Urban water quality and sediment management (I,W) • Increase community capacity for environmental restoration (E)
Cockle R2	From below the Freeway overpass to the tidal section near the junction with Cowan Creek	Assisted Regeneration			Entire reach in Ku-ring-gai Chase National Park

Reach Management Recommendations – Cowan Creek / Pittwater River Subcatchments

Reach Name	Reach Description	Riparian Land Management Category	Reach Values	Reach Threats	Reach management recommendations (Planning, Education, Works, Monitoring, Institutional)
McCarrs Ck R1	Entire creek length	Conservation	<ul style="list-style-type: none"> • Good riparian vegetation • Wetland of local significance (two hanging swamps) • Good river condition • High geomorphic recovery potential • Kur-in-gai Chase National Park • Significant vegetation community (Sydney Coastal Swamp Forest) • Popular swimming • High public recreation access • Identified flagship species (Southern Brown Bandicoot, Powerful Owl, Glossy Black Cockatoo) • Significant community based environment activity 	<ul style="list-style-type: none"> • Occasional aquatic weed outbreaks (<i>Ludwigia peruviana</i> and <i>Ludwigia longifolia</i>) • Damaging access (human access) • Barriers to ecosystem functioning (weir at Cicada Glen) 	<ul style="list-style-type: none"> • Maintain existing community activity – provision of incentives (E,P) • Management of aquatic weeds (E,W) • Manage human impacts at public recreation river access points and along foreshores (E,W) • Aquatic habitat condition and connectivity improvement – barriers to fish passage (W) • Riparian wetland management (P,W) • Develop conservation management agreements to protect remnant riparian vegetation (P)
Pittwater	Pittwater Estuary including all Tidal sections	Assisted regeneration	<ul style="list-style-type: none"> • Good riparian vegetation • Wetland of regional or state significance • Significant vegetation community • Popular recreational fishing • Popular motor boating • Popular non-motor boating • Popular swimming • Identified flagship species (Bush Stone Curlews) • River based tourism is a major focus for the regional economy • Significant community based environment activity 	<ul style="list-style-type: none"> • Modified / engineered channel (extensive seawalls and foreshore structures) • Aquatic weed outbreaks (<i>Caulerpa taxifolia</i>) • Damaging access (humans) • Flow regulation • Urban land use <p>Action Triggers</p> <ul style="list-style-type: none"> • Severe immediate threat (<i>Caulerpa taxifolia</i>) 	<ul style="list-style-type: none"> • Riparian wetland management (P,W) • Urban water quality and sediment management • Management of aquatic weeds (P,I) • Manage human impacts at public recreation river access points and along foreshores (P,W)