

Recommendations

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| 1 | DEC, the SCA and the NRC give further consideration to integrating catchment and natural resource management audit processes and NSW State of the Environment reporting. |
| 2 | The SCA work with DNR and councils to establish a spatial information system to track and record the date, type and location of all on-ground works being undertaken or funded by Government for the purpose of water quality and ecosystem health management in the Catchment. |
| 3 | The SCA examine the potential for, and benefits of, integrating ecosystem water quality, macroinvertebrate, fish (when developed) and riparian vegetation condition monitoring programs. |

Raw water quality

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| 4 | The SCA further develop L-THIA nutrient modelling for all sub-catchments to assist in prioritising nutrient reduction programs. |
| 5 | The SCA focus its programs for nutrient reduction from diffuse sources on the Wingecarribee River (priority), Wollondilly River (priority), and Mulwaree River (priority) sub-catchments, and encourage other organisations undertaking related programs to focus on these same sub-catchments where possible. |
| 6 | The SCA identify the cause of exceedence of the Bulk Water Supply Agreement for turbidity, pH and algae at water filtration plants. |
| 7 | The SCA identify the cause of the 'high' incidences of algal blooms in the Kangaroo River (priority), Wingecarribee River (priority), Mid Coxs River (priority) and Lake Burragorang sub-catchments and develop specific management strategies for each location. |
| 8 | The SCA investigate the source of <i>Cryptosporidium</i> oocysts at Gibbergunyah Creek and Propsect WFP and the source of <i>Giardia</i> cysts at Gibbergunyah Creek, Kedumba Creek, Wollondilly River at Jooriland and Murray's Flat, and develop a management response at each location to reduce the incidence of <i>Cryptosporidium</i> and <i>Giardia</i> oocysts and cyst presence. |

Managing water resources

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| 9 | The DNR undertake research into the impact of different levels of water extraction and harvesting of water in farm dams on flow regimes and ecosystem health within the Catchment, focussing on the sub-catchments most under pressure from water extraction and water harvesting. |
| 10 | The DNR use the results of research and improved knowledge about the impacts of water extraction and water harvesting in periodic reviews of Water Sharing Plans in the Catchment. |
| 11 | The DNR require groundwater extraction volume metering and reporting with a priority for implementation on licences in the Southern Highlands, Kangaroo River (priority), Werriberri Creek (priority) and Wingecarribee River (priority) sub-catchments. |
| 12 | The DNR give consideration to locating new monitoring bores in the Southern Highlands, Kangaroo River (priority), Werriberri Creek (priority) and Wingecarribee River (priority) sub-catchments. |
| 13 | The DNR develop a hydrological model that investigates the interaction between surface and groundwater systems and that can be used to manage surface and ground water extraction from the Catchment. |
| 14 | The DNR develop and implement systems for measuring and reporting of flow and flow variability for all sub-catchments to support the implementation of extraction rules and periodic review of the Water Sharing Plans. |
| 15 | The SCA implement measures recommended by the Wetlands and Woodlots for rock armoury and vegetative stabilisation in Doudles Folly Creek and Glenquarry Creek as an interim measure to reduce streambank erosion caused by bulk water transfers. |

Land condition

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| 16 | The SCA and the Department of Planning prepare a detailed land use map at five year intervals. The resolution and categorisation should be sufficient so that change from the previous map can be determined. |
| 17 | The SCA identify high risk activities where there is no documented best practice benchmarks, and work with relevant agencies, industries and landholders to develop and implement recommended management practices. |
| 18 | The SCA develop pollution prevention or rehabilitation programs at sites identified as very high, high and medium risk to water quality, in consultation with relevant agencies, operators and landholders. |
| 19 | The DNR develop systems in consultation with the SCA for recording the location, nature and extent of actual cases of soil erosion and land salinity in the Catchment. |
| 20 | Programs addressing soil erosion and salinity in the Catchment target areas with identified risk, and integrate with other programs for riparian and vegetation management where possible. |
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Ecosystem health

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| 21 | The SCA review its water quality monitoring program to ensure that appropriate ecosystem water quality monitoring is undertaken in all sub-catchments. |
| 22 | The SCA review its macroinvertebrate monitoring program to ensure that monitoring is further integrated with water quality monitoring (i.e. the sites are monitored for both macroinvertebrates and water quality parameters). |
| 23 | The SCA consider follow-up monitoring at macroinvertebrate monitoring locations that have significantly impaired or severely impaired AusRivAS ratings. |
| 24 | The NSW DPI, in consultation with SCA, develop a fish community monitoring program for the Catchment to assist the management of aquatic ecosystem health. |
| 25 | The DNR, DEC and SCA jointly undertake vegetation condition mapping of areas outside the Special Areas. |
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