

6 Monitor, report and review process

Table 6.1 summarises the proposed monitoring program to assess the performance of the WLEMP and to be reported to the WLEMIC. However, for some strategies it is not yet possible to devise performance indicators for monitoring purposes. In these instances specific performance indicators may need to be developed when they are implemented.

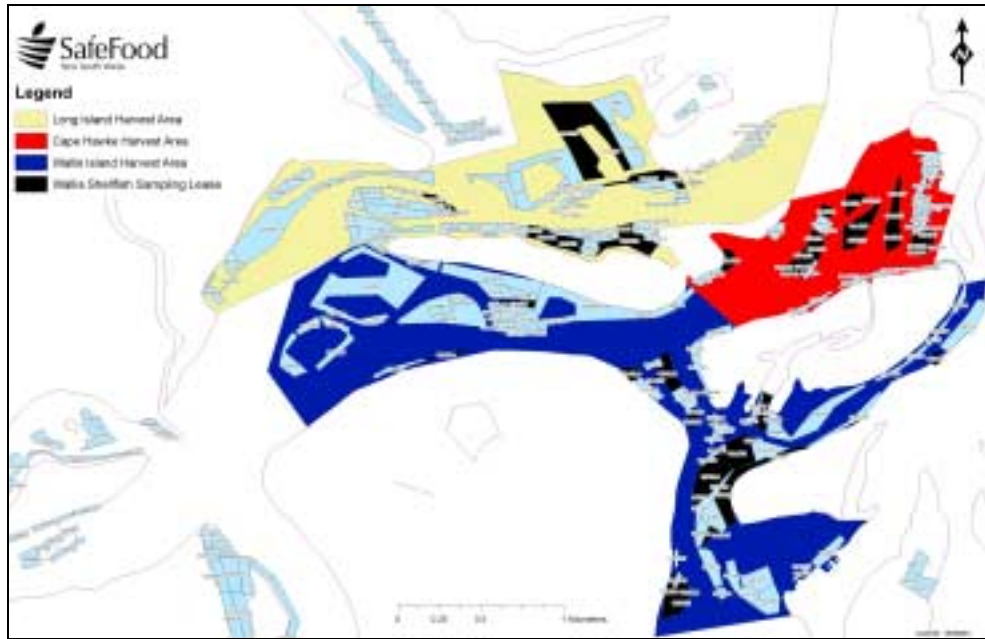
Strategy / Action	Performance Indicator / Monitoring program
Strategy W.1 Strategy W.2 Strategy W.6 Strategy W.8 Strategy W.10	<ul style="list-style-type: none"> • Results of the baseline water quality sampling program (action W.6.1) can be used to assess the effectiveness of management plans*, SQIDs, DCPs and educational campaigns to reduce the input of nutrient, faecal and sediment material to the Lake. The parameters to be measured include; TN, TP, NO_x, NH₄, PO₄, Chl. <i>a</i>, faecal coliform, temperature, salinity, pH and turbidity. These baseline samples should be collected during periods of low flow to facilitate a better understanding of the normal dry weather functioning of the estuary and to allow comparison with ANZECC water quality guidelines. Replicates are to be taken at each site and this assessment is to be completed twice a year during winter and summer months. (GLC) • The parameters outlined above for action W.6.1 should also be measured to assess the effectiveness of newly constructed artificial wetlands (Boronia Park, Pioneer Drive, Kularoo Drive, Goldens Road north, Goldens Road south). Samples should be collected for at least two wet weather events both upstream and downstream of the wetland. For wetlands that form part of a treatment chain on the same drainage line (eg Pioneer Drive and Kularoo Drive, and Goldens Road north and Goldens Road south) samples should be taken upstream of the most upstream wetland and downstream of the most downstream wetland on that drainage line. • Number, severity and duration of algal blooms from Oyster QAP, Safe Food data and from other government authorities' records (oyster growers, SafeFood)
Strategy W.3	<ul style="list-style-type: none"> • Initial and follow up results of the audit on slipway operations • Results of the annual SafeFood shellfish testing for pesticides and metals (Figure 6.1)
Strategy W.4	<ul style="list-style-type: none"> • Results of the baseline water quality sampling program (action W.6.1, see above) • Wet weather event based pH measurements at Darawakh Creek (GLC) • Follow up survey of fish and aquatic invertebrates of Darawakh Creek after Frogalla Swamp wetland is rehabilitated (see Curlew Biological Services, 2000) (GLC)
Strategy W.5	<ul style="list-style-type: none"> • Results of the baseline water quality sampling program (action W.6.1, see

* Management plans include the *Lower Wallamba River rivercare plan* and the *Wallis Lake stormwater management plan*.

	<p>above)</p> <ul style="list-style-type: none"> • Septic tank inspection pass/fail rate under the Septic√Safe program (GLC) • Results of wet weather event based faecal coliform sampling (GLC, MidCoast)
Strategy W.9	<ul style="list-style-type: none"> • Obtain information on volume and location of litter and standardise by effort from litter collection campaigns such as <i>Clean-up Australia Day</i>. Given that the amount of litter entering the estuary is thought to increase substantially during peak holiday periods, this data may also need to be standardised by the number of tourists visited that year (from visitor information centre) and population of the Forster/Tuncurry region (census data) (GLC, DEC)
Strategy E.1	<ul style="list-style-type: none"> • Wetland health assessments (GLC, DEC)
Strategy E.2 Strategy E.3 Strategy E.4 Strategy E.5	<ul style="list-style-type: none"> • Seagrass health and distribution/abundance assessments and extent of propeller chop assessed through <i>Posidonia australis</i> surveys and seagrass monitoring program (GLC) • Assess sea gauze and <i>Chaetomorpha</i> sp abundance and distribution as part of the seagrass monitoring program (action E.4.3) (GLC)
Strategy E.6 Strategy M.6 Strategy M.7 Strategy U.3	<ul style="list-style-type: none"> • Conduct and follow up on riparian vegetation assessments (action E.6.2) • From aerial photography assess the proportion of foreshore with natural riparian vegetation extending more than 10 m from the shoreline (GLC) • Compliance rates with SEPP14 and tree preservation orders (GLC) • Monitor rates of erosion at strategic locations along the Wallamba River (GLC) • Examine the proportion of grazing land along the riparian zone with fencing to exclude stock (GLC)
Strategy F.1 Strategy F.2 Strategy F.3 Strategy F.4	<ul style="list-style-type: none"> • Commercial and recreational fish catches (NSW Fisheries) • Number and severity of fish kills in the upper Wallamba River (NSW Fisheries) • For the construction of fishways, help may be sought from amateur fishing clubs to implement a monitoring program for catch rates
Strategy O.1 Strategy O.2	<ul style="list-style-type: none"> • Oyster production – value and by bag/plate (NSW Fisheries) • Compliance rates from the Aquaculture Lease Survey Project (NSW Fisheries) • Proportion of oyster aquaculture leases and land based leases maintained within crown lease boundaries • Proportion of oyster growers using plastic racks instead of wooden sticks
Strategy S.4	<ul style="list-style-type: none"> • Assess results from monitoring of movement of the mud shoal (action S.4.1)
Strategy M.3	<ul style="list-style-type: none"> • Conduct an assessment of the proportion of bank area at foreshore reserves experiencing erosion (GLC)
Strategy U.1	<ul style="list-style-type: none"> • This strategy may require community surveys at agreed intervals. The survey could be completed a part of the consultation process for the development of the <i>Wallis Lake recreation/boating management strategy</i> and then repeated once the strategy has been implemented
Strategy U.2	<ul style="list-style-type: none"> • Number of incidents reported to waterways

Community education strategies	<ul style="list-style-type: none"> • Results of the baseline water quality sampling program (action W.6.1, see above) • Community surveys at agreed intervals may be required • Frequency of media coverage on estuary management issues
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[Table 6.1: Performance indicators for the WLEMP]



[Figure 6.1: Sites of annual shellfish samples for pesticide and metals testing by SafeFood]

The results of this monitoring should additionally become part of the routine SoE reporting process and also reported to the wider community via the local media, GLC's web page and community newsletters.

The WLEMIC will be responsible for formally reviewing the plan in 3 years time. This review process will involve assessing the progress of the plan with respect to the priority designated to each strategy, a review of expenditure (possibly including a cost benefit analysis of implemented actions), reporting on performance indicators and identifying any new issues, conflicts and concerns. A program for the following 3 years should be developed at this time by reassigning priority to the remaining actions in the plan and by designating priority to any new actions resulting from the review process. Commitment by the signatories to the SOJI should also be renewed at this time.