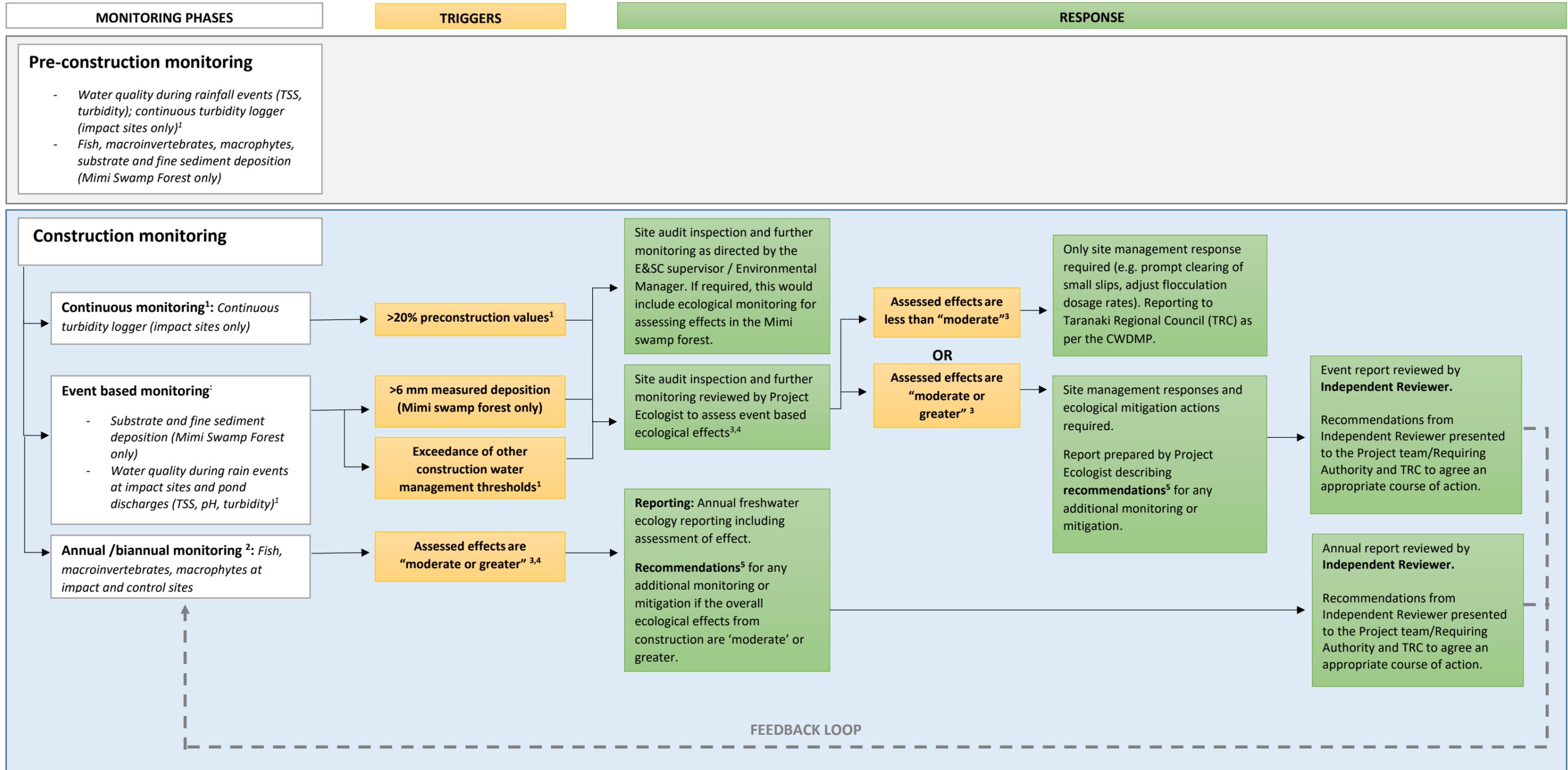


APPENDIX 1: AQUATIC ECOLOGICAL MONITORING AND RESPONSES



Explanatory Notes

1. Refer Construction Water Discharge Monitoring Programme (CWDMP)
2. Frequency of ecological monitoring is initially twice a year, reducing to annual when high risk sections are completed or if monitoring shows effects to be low.
3. The overall ecological effects of the Project shall be assessed by the Project Ecologist as being 'negligible', 'very low', 'low', 'moderate', 'high', or 'very high'. The assessment shall consider the effects on the stream as a whole, including spatial extent, persistence, frequency and the extent to which effects cascade through the ecosystem (e.g. effects on substrate, macrophytes, invertebrates and fish).
4. Effects shall be interpreted in the context of results from baseline monitoring, control sites and relevant water quality monitoring. Effects rated 'moderate' or greater will need to be persistent for a year or more.
5. Further monitoring, mitigation or offset may be recommended if the overall ecological effects are determined to be 'moderate' or greater. Additional mitigation or offset shall only be recommended for effects that are additional to those already anticipated by the AEE, or offset or compensated by the Restoration Package.