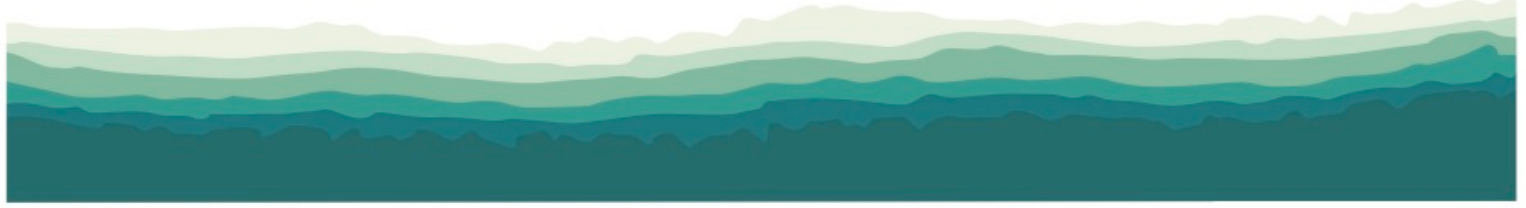


Seashore Engineering



SWAN RIVER FORESHORE ASSESSMENT PROJECTS

Scope

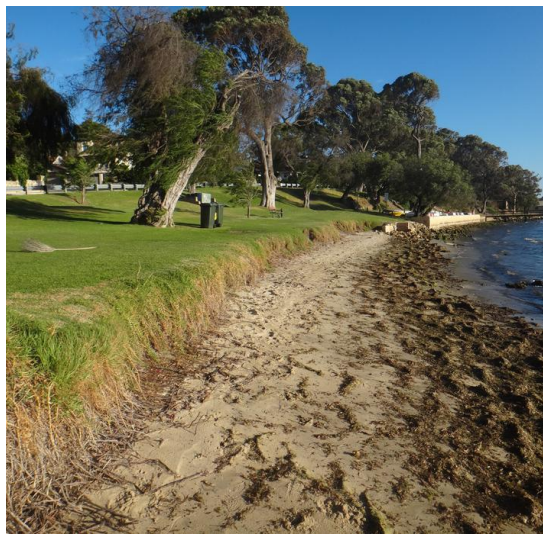
Developed and implemented physical condition assessments of built and natural foreshores within the Swan and Canning estuarine systems between 2005 and 2020. The initial evaluation covered more than 240km of foreshore, and supported the Foreshore Assessment and Management Strategy (SRT 2007).

Ongoing assessments provide a technical basis to support strategic allocation of Riverbank Program funding, with due consideration of appropriate stabilisation or management options and maintenance requirements. Each asset was rated for condition and consequence using defined physical criteria, forming the basis for an overall risk rating. Repeated assessment using the same techniques, with focus on assets at higher risk, provides a basis for prioritising foreshore rehabilitation.

Outcomes: For each assessment iteration, deliverables included a spatial dataset containing asset ratings with supporting information, georeferenced photographs and a technical report documenting methods, results and recommendations. Potential refinements to the program for photograph capture, dataset management and assessment timing were identified. Information collected provides a valuable record along the Swan River, to determine local degradation and understanding of broader foreshore responses.

Assessments have covered over 240km of structures, drains and natural foreshore areas. To limit field requirements, preliminary screening was conducted using desktop assessment (e.g. using video, ground and aerial photographs), with ground truthing of high priority sites.

Challenges: A key challenge was to ensure consistency of ratings between different structure and foreshore types; with different field personnel. All assessments were undertaken using a replicable and consistent approach and were reviewed by the Project Lead using site photographs, field documentation and knowledge from previous site visits. Following initial assessments, a scale limitation of overall risk ratings was identified, where small sections in poor or failed condition could be overlooked. These represent points where small repairs may provide high value. Consequently, the assessment method was modified, to including identification of focal foreshore issues.



CASE STUDY

Disciplines: Coastal & Estuarine Engineering

CLIENT

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