

C.V. - Leslie ANGUS JACKSON

CHARTERED PROFESSIONAL ENGINEER

30 years experience as a qualified **Civil Engineer**
with over 24 years specialising in **Coastal Engineering**.

PRESENT POSITION: Director & Principal Engineer, International Coastal Management

PREVIOUS POSITION: Director- Beaches, Waterways & City
Cleaning; Gold Coast City Council

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QUALIFICATIONS:

B.E: Bachelor Of Engineering Degree (Civil); Uni. Of Qld, 1975
CPENG: Chartered Professional Engineer [R/N 78111]
MIE: Member Institution Of Engineers, Australia [M/N 65795]
RPEQ: Registered Professional Engineer, Qld. [R/N 2876]
NPER 3: National Professional Engineers Register - Level 3

Total Quality Management Accreditation
Train The Trainer Accreditation
Diver – Commercial, Scientific & Recreational
Small Vessel Coxwains Certification



ENGINEERING EXPERIENCE:

After graduation in Civil engineering degree at the University of Queensland in 1975, Angus gained experience with Gold Coast City Council in contract administration and the supervision of “special projects” construction. From 1981, he has specialised in coastal engineering and has been involved in the successful planning, design and implementation of COASTAL ENGINEERING and COASTAL ZONE MANAGEMENT projects worldwide. Advisory roles have included Standards - Australia, the City of Biarritz in France and Kanagawa Prefecture in Japan.

From 1981 to 1995 he was responsible for the development and management of Gold Coast City Council's extensive coastal management programme to protect and enhance the City's beaches and waterways. This involved responsibility for applied research, design, approval, implementation and monitoring of numerous and often innovative coastal engineering projects. Many of the policies and practices developed are still considered as “world best practice”.

Since July 1995 Angus has been Managing Director of **International Coastal Management** [ICM] based on the Gold Coast. Recent major projects include the development and implementation of a number of integrated Coastal Management Plans. To provide cost effective and practical solutions for coastal zone projects, considerable research and development is being carried out by ICM into specialist areas such as sand filled structures and reef breakwaters. This has led to innovative, benchmark projects such as the Narrowneck reef on the Gold Coast, designed and constructed of mega sand filled geotextile containers, not only for coastal protection but also for surfing, fishing and diving. Such projects are often managed from feasibility through to implementation and monitoring. Over 60 papers have been published - a full list and copies of recent papers can be obtained from: <http://www.coastalmanagement.com.au/papers>

KEY AREAS OF TECHNICAL EXPERTISE

- Integrated coastal management feasibility studies, EIS and strategies
- Coastal processes, investigations and modelling
- Hydrographic survey methods and Interpretation
- Coastal works design and Implementation:
 - Beach and nearshore nourishment
 - Dune stabilisation
 - Coastal protection structures
 - Groynes
 - Reef breakwaters
 - Seawalls
 - Dredging, sand bypass and fluidization systems
 - Public Facilities
 - Boardwalks
 - Beach accesses
 - Boat ramps
- Marinas
- Reclamation
- Waterway and canal maintenance
- Submarine pipelines
- Sea level rise impacts
- Estuary and catchment management
- Ocean effluent disposal
- Counter disaster mitigation and planning

RECENT MAJOR PROJECTS:

A range of projects and research has been carried out in Australia and overseas. These include:

- Master Planning of World Is project, Dubai
- Dredging / Sand Bypassing [project management]
 - Dredging of sand from Tweed R entrance for sand bypassing, navigation and beach nourishment of Southern Gold Coast beaches [ongoing, 1990 – present; ~5Mm³]
 - Maintenance dredging of sand from Port Hacking and nearshore nourishment of Cronulla Beach [~90,000m³]
 - Terranora Inlet navigation dredging
 - Mooloolaba Entrance bypass dredging
 - Evans R entrance bypass dredging
 - Clarence R navigation dredging
 - Coffs Harbour navigation dredging
 - Canal management/dredging strategies; Gold Coast
 - Feasibility study, costing and tender for bypassing at Capbreton, France
 - Sand bypass tender by dredging for Tweed R entrance
 - Feasibility study and trial for fluidisation of Currumbin Creek entrance
- River diversion for Gold Coast Entertainment Centre
 - Dredging of new channels and closure of old channels
 - Boardwalks
 - Revetment walls
 - Public boat ramp
- Coastal Management Strategies and EIS
 - Northern Gold Coast Beach Protection Strategy
 - Beach nourishment
 - From estuary [1.1Mm³]
 - From building sites [~80,000m³ / yr]
 - Reef breakwater at Narrowneck – sand filled geotextile containers

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- Sand backpassing from Nerang bypass system
- Public access and boardwalks
- Dune restoration and stabilisation
- Seawalls
- Palm Beach- Beach Protection Strategy
 - Beach nourishment
 - From offshore [370,000m³]
 - From estuary [~40,000m³ / yr]
 - Reef breakwaters (3) – sand filled geotextile containers
 - Groynes (4) – rock existing
 - Public access and boardwalks
 - Dune restoration and stabilisation
 - Seawalls
 - Management of Currumbin Creek entrance and estuary
- Noosa Beach Restoration Strategy
 - Beach nourishment from offshore and estuary
 - Structures - Reef breakwater, existing groynes and seawalls
- Elliot Heads Erosion Protection Strategy
 - Seawall – sand filled geotextile containers
 - Groyne – sand filled geotextile containers
- Byron Bay CMP [preliminary]
 - Sand nourishment
 - Seawalls
 - Groyne
 - Reef breakwaters [2]
- Noosa R and Spit – protection works
- Erosion protection strategy for Oyster Cove Resort, Qld
- Reclamation trial at Port of Brisbane using mega sand filled containers filled with silts.
- Reclamation feasibility study for Port of Gisborne using mega sand filled containers
- Reef design for beach improvement and protection, Carlsbad, California
- City du Surf Project Advisor, Biarritz, France
- Surfing reefs; Preliminary feasibility / cost: benefit / design studies for
 - Albany (Aus)
 - Biarritz [Fr]
 - Bournemouth [UK]
 - Gisborne [NZ]
 - Mount Manganui [NZ]
 - Lyall Bay [NZ]
 - New Plymouth [NZ]
 - Taranaki [NZ]
 - El Segundo [USA]
- Southport Yacht Club
 - Marina redevelopment options, design & construction supervision.
 - Superyacht Berths
 - Swing Moorings
 - Sheet pile wall repairs
- Preliminary feasibility study for coastal protection along French Riviera using submerged reefs
- Condition survey of retaining walls and safety ladders along boardwalk, Lake Burley Griffin
- Condition survey of Appel Park wharf for Gold Coast City Council
- Design of recreational boating facilities for Qld Depart. of Transport & Brisbane City Council
- Design of seawall and submarine seawater intake pipeline; Hualien, Taiwan
- R&D [AusIndustry] - Sand filled geotextile structures for coastal protection and amenity
 - Seawalls and groynes
 - Stability
 - Construction methods
 - Durability
 - Reef breakwaters
 - Design formulae for salient size prediction, storm cut & stability
 - Marine ecology
 - Recreational amenity – surfing, diving & fishing

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- Construction methods
- Durability