

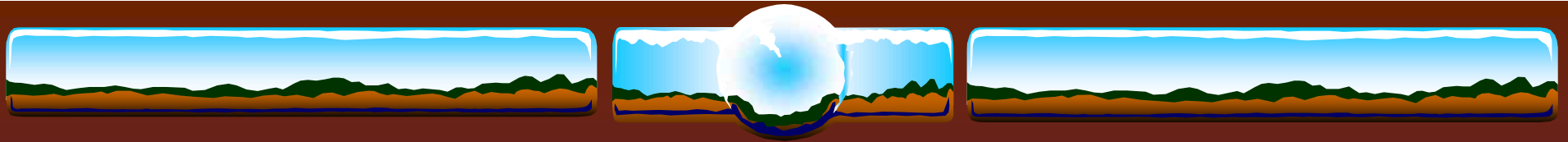
GOLDENEYE RESORT DEVELOPMENT

The EIA Findings



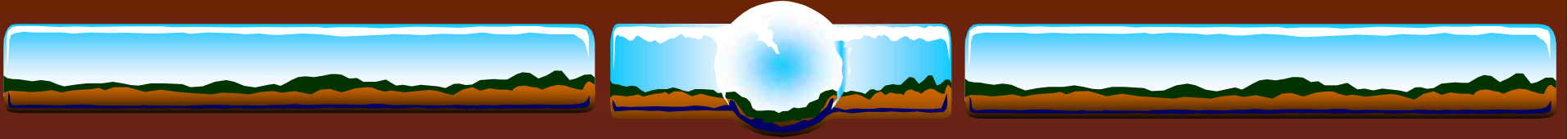
Presented by

Peter Reeson



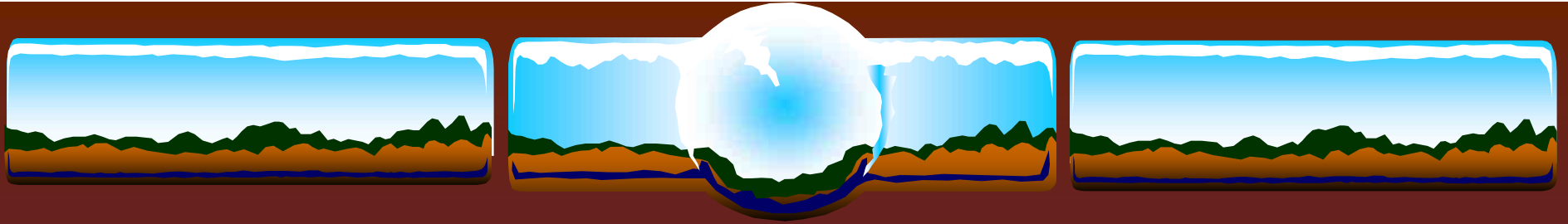
Purpose

- ❖ To allow Island Jamaica Ltd. to formally share its development plans with the people of Oracabessa and the wider community
- ❖ To present the findings of the environmental impact assessment
- ❖ To provide the opportunity for questions and answers related to the project – a labrish!
- ❖ To comply with the requirements of the National Environment & Planning Agency (NEPA)



Content

1. Goldeneye – the environmental context
2. The project – site layout & planning
3. What is EIA
4. Environmental impacts & mitigation
5. Summary & conclusions
6. Q&A / discussion



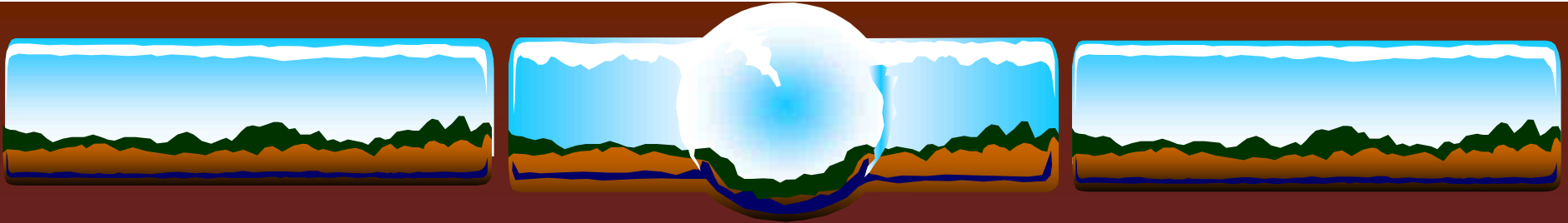
Project proponent

Island Jamaica Ltd.

Palmer House

Eden Bower Road

Ocho Rios, Jamaica

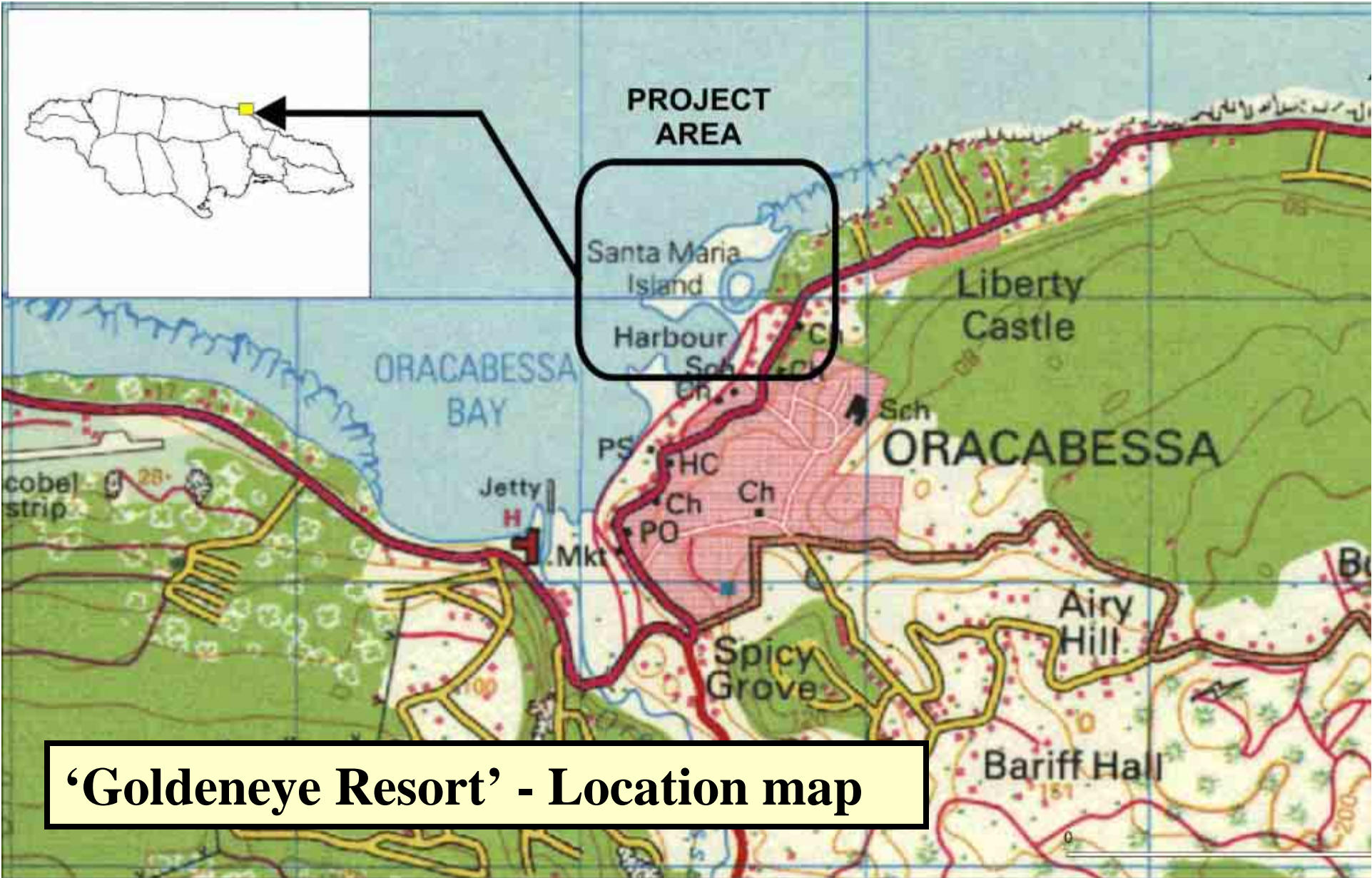


1. Environmental Context

‘Goldeneye’

Oracabessa

St. Mary



‘Goldeneye Resort’ - Location map

Galina

'Old Goldeneye'



Oracabessa





'Old'
Goldeneye

Lagoon

Santa
Maria
Island

The
Outer
Bank

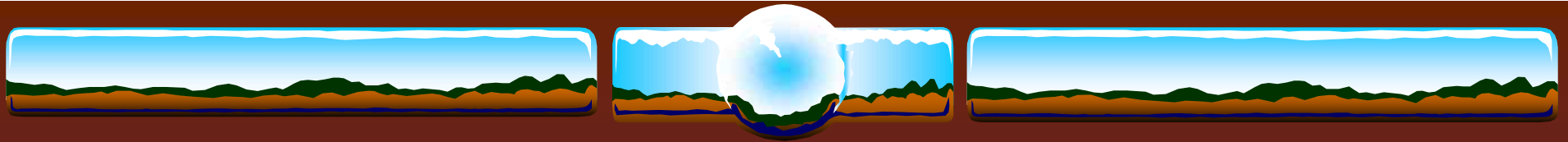
Coral reef

Oracabessa
Bay

James
Bond
Beach

N ◀.....

1992 aerial survey



Existing environment - Land

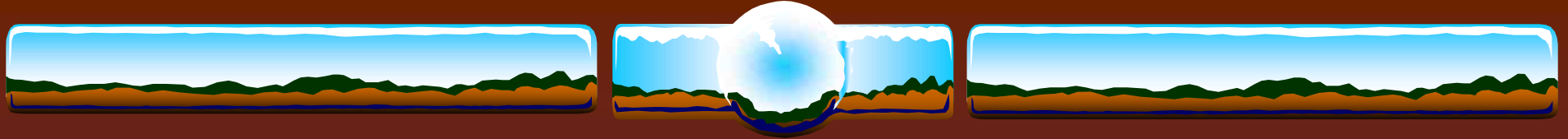
- ❖ ‘Outer Bank’ = reclaimed marl-filled land, rock revetments, naturally re-vegetated by pioneer grasses, shrubs, trees, some trees artificially planted e.g. dwarf coconuts
- ❖ Santa Maria Island – well-wooded; Santa Maria, seagrape, red mangroves, etc.
- ❖ ‘Old Goldeneye’ – typical coastal woodland & limestone species plus a variety of introduced tree species





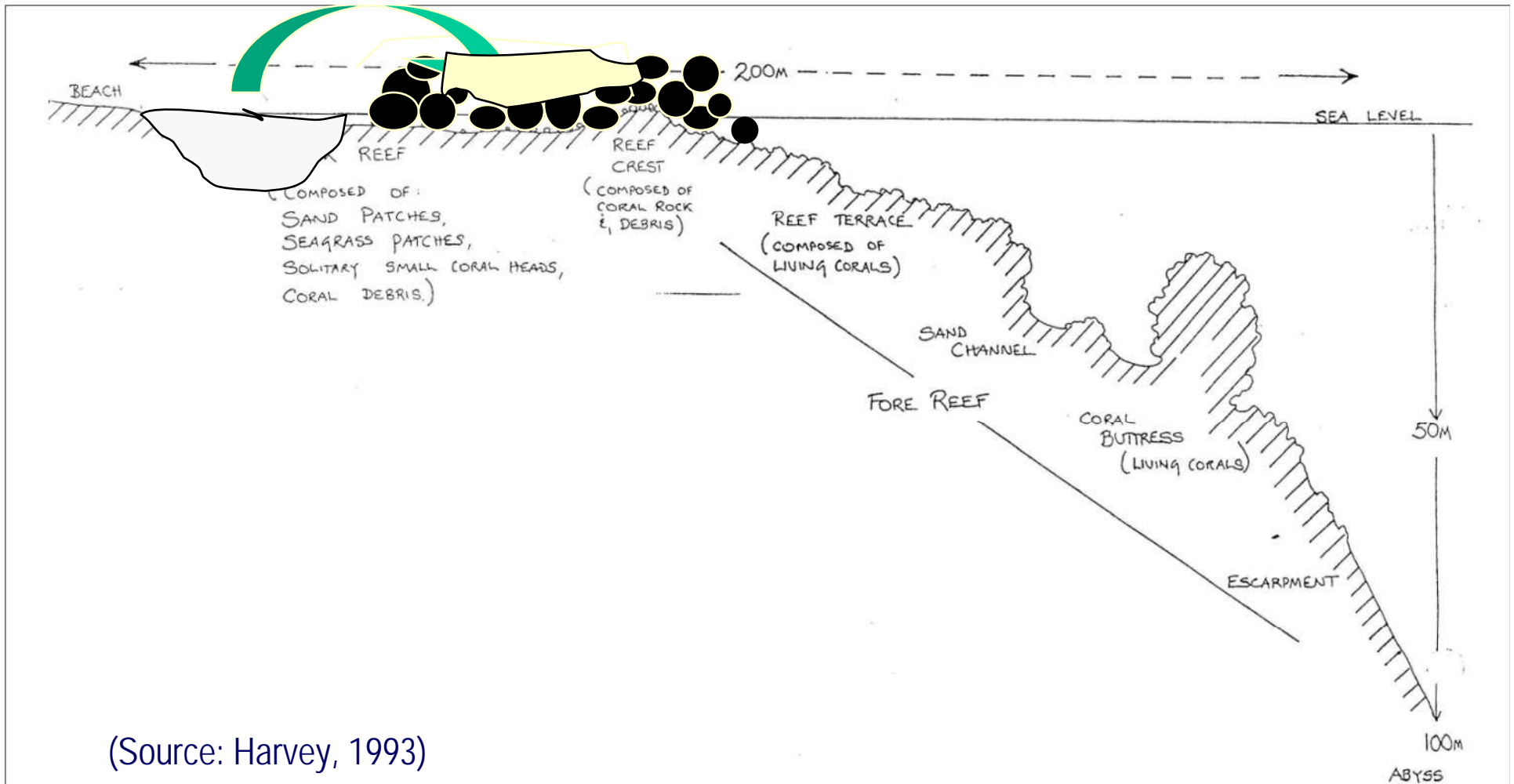






Existing environment - Marine

- ❖ Components of marine system:
 - Remnant fore reef (reef crest filled in 1970s using material excavated from Oracabessa Bay and marl quarries)
 - Oracabessa Bay (partially excavated)
 - Lagoon surrounding Santa Maria Island
 - Except for original Goldeneye beach, all beaches at development site are man-made



(Source: Harvey, 1993)

Profile of typical north coast coral reef



Sea grass,
algae, sand
& mud

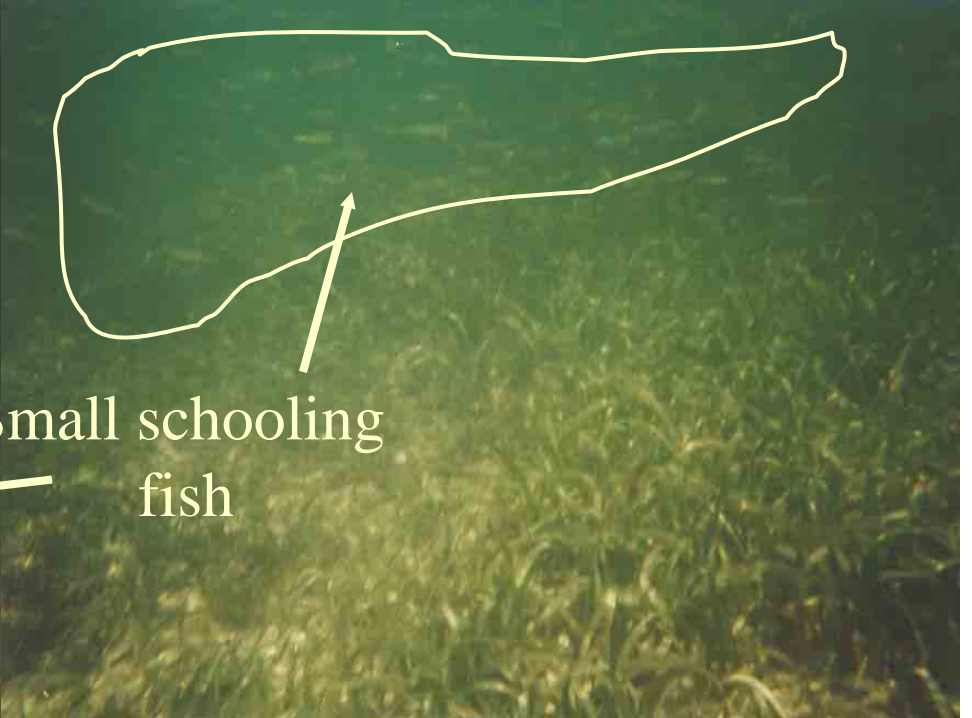
Sea grass,
algae & sand

Coral
reef

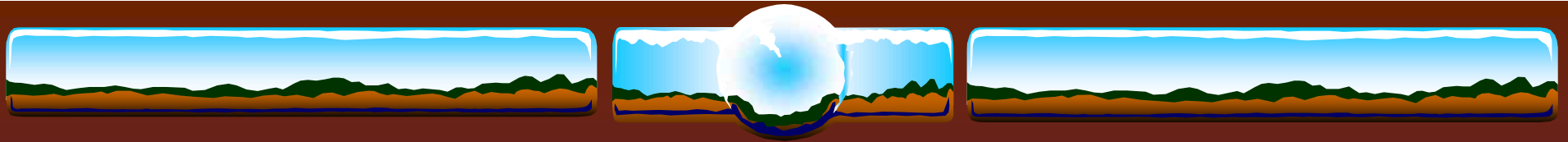
Marine habitats





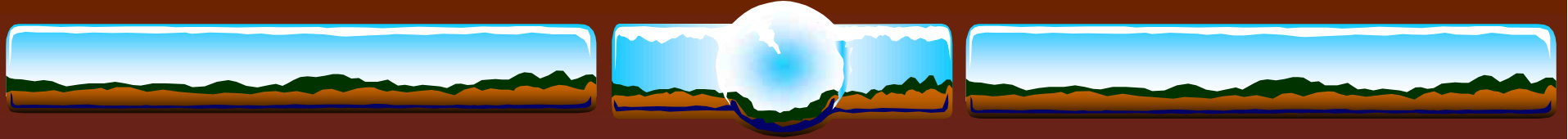


Small schooling fish



Marine water quality

- ❖ 1994 ESL study - land runoff affects water quality – elevated nutrients and suspended solids
- ❖ 2004 study – similar results – coliform bacteria within standard
- ❖ Concluded - water safe for recreational use
- ❖ Recommended – regular monitoring to identify source of nutrients and TSS
- ❖ Also recommend application for Blue Flag certification



Natural hazards

- ❖ Global sea level rise = ~ 0.5m (9in) in next 50 yrs
- ❖ Storm surges:
 - Oracabessa 0.6m (10yr) – 1.5m (50yr) a.s.l.
 - Falmouth 2.1m (10yr) – 3.7m (50yr)
- ❖ Hurricane winds
- ❖ Earthquakes & tsunamis

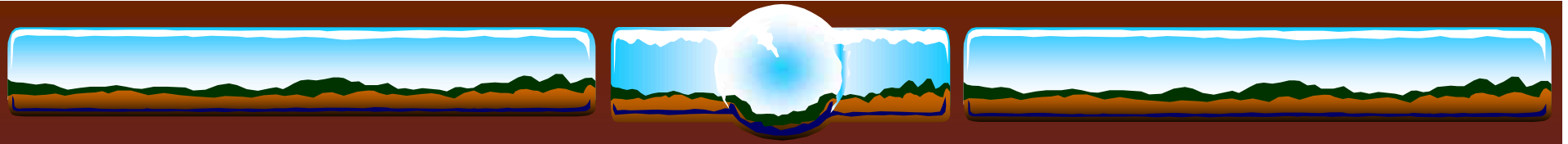


Community aspects

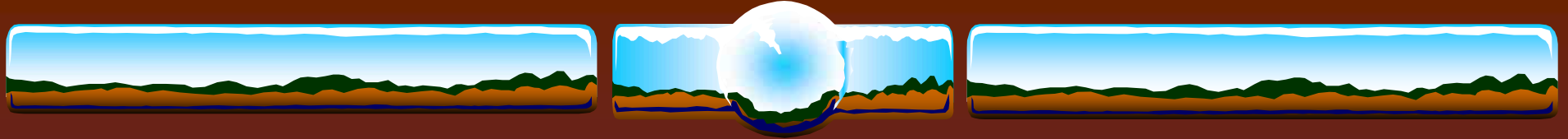
- ❖ Oracabessa (~ 4,300 persons) and several communities/districts are adjacent to development site (Galina, Race Course, Canoe Pond, Airy Hill, Spring Head, Geddes Mountain, Hamilton Mountain, Days Mountain, Bariffe Hall, Mason Hall)
- ❖ Population stagnant, high unemployment
- ❖ Oracabessa High School, HEART/NTA
- ❖ Oracabessa Foundation
- ❖ Oracabessa Fisherman's Cooperative – IJL approaching agreement with fishers





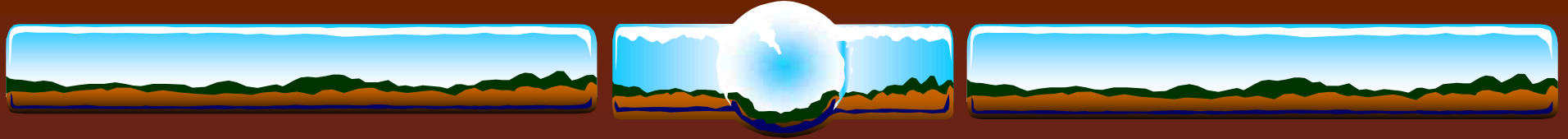


2. Proposed development project



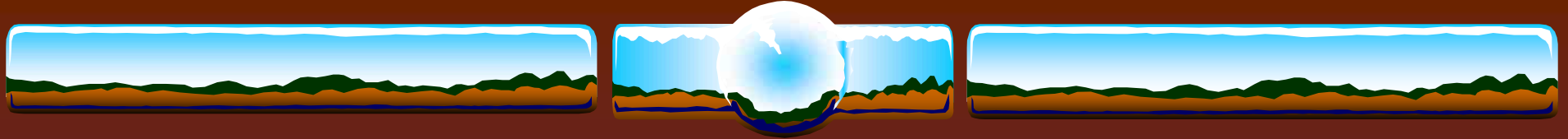
Buildings

- ❖ Modification of project originally proposed in early 1990s for waterfront development at Oracabessa
- ❖ High-end, low density tourism resort
- ❖ 46 lots on Outer Bank, 10 lots on Santa Maria
- ❖ 22 villas & 22 cottages (concrete and timber uppers, over-water decks), 10 huts (all timber) & 30 apartments (concrete)
- ❖ Fishermen Square
- ❖ 5 swimming pools
- ❖ Central facilities
 - Club house, restaurant, kitchen, main bar, lobby, admin. offices
 - Thalassotherapy Spa, spa suites over water
 - Restaurant & bar at Low Quay Beach
 - Back of house



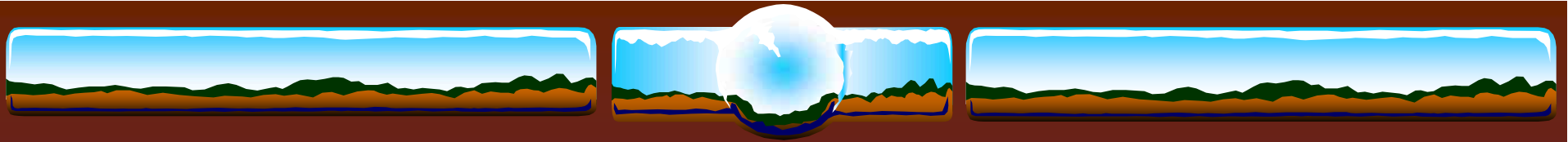
Infrastructure & works

- ❖ Gravel top roadways, service vehicles & golf carts only
- ❖ Underground water, electricity, telephone and CATV lines
- ❖ Stand-by generator (1.5 MW) + fuel storage
- ❖ Parking areas
- ❖ Staff parking & housing
- ❖ Heavy emphasis on landscaping



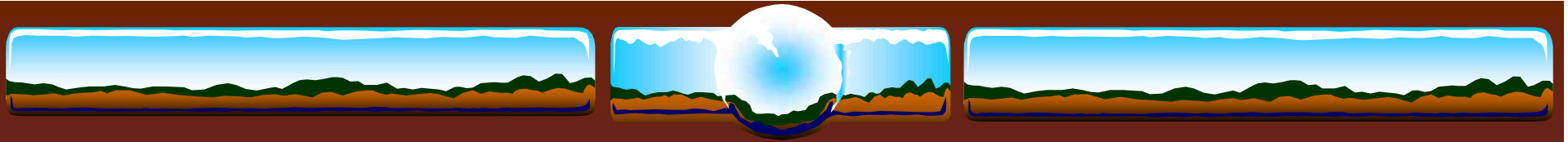
Shoreline works

- ❖ Wooden bridge to Santa Maria Island
- ❖ Culvert widening & bridge
- ❖ Repairs to shoreline protection
- ❖ Reclamation at SW groyne
- ❖ Causeway reclamation
- ❖ Several docks (NO boat refueling facilities)
- ❖ Marine excavation and lagoon deepening works

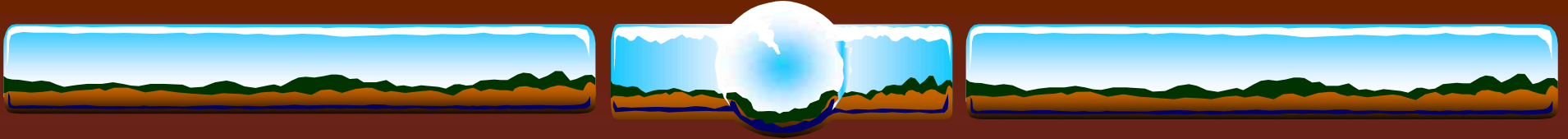


Waste management

- ❖ Central sewage treatment system (extended aeration, 80 million litres/day/21 mil. gpd) – will meet NRCA effluent standards
- ❖ Solid waste – chilled food waste storage, compactor, Haddon dump

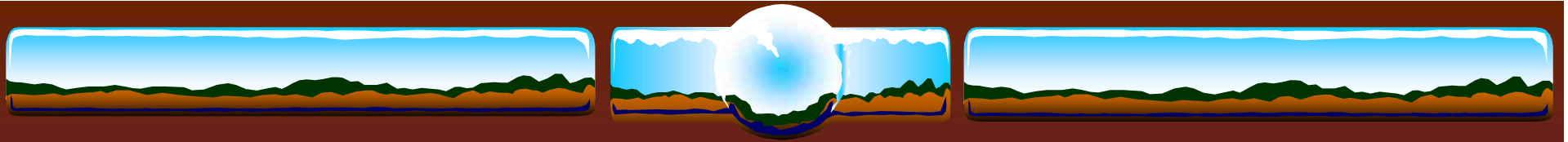


3. What is Environmental Impact Assessment (EIA)



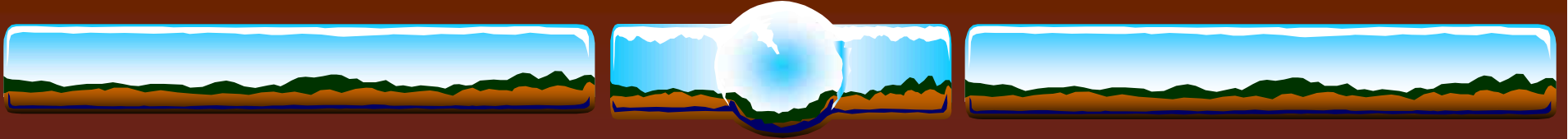
EIA is:

- ❖ Process of systematically examining possible consequences of proposed plans and projects
- ❖ Results of the assessment intended to provide decision-makers with a balanced appraisal of the ecological, social and health implications of project implementation and of alternative courses of action
- ❖ It contributes to the information base upon which a decision is made and assists in the design and formulation of an environmentally sound development proposal



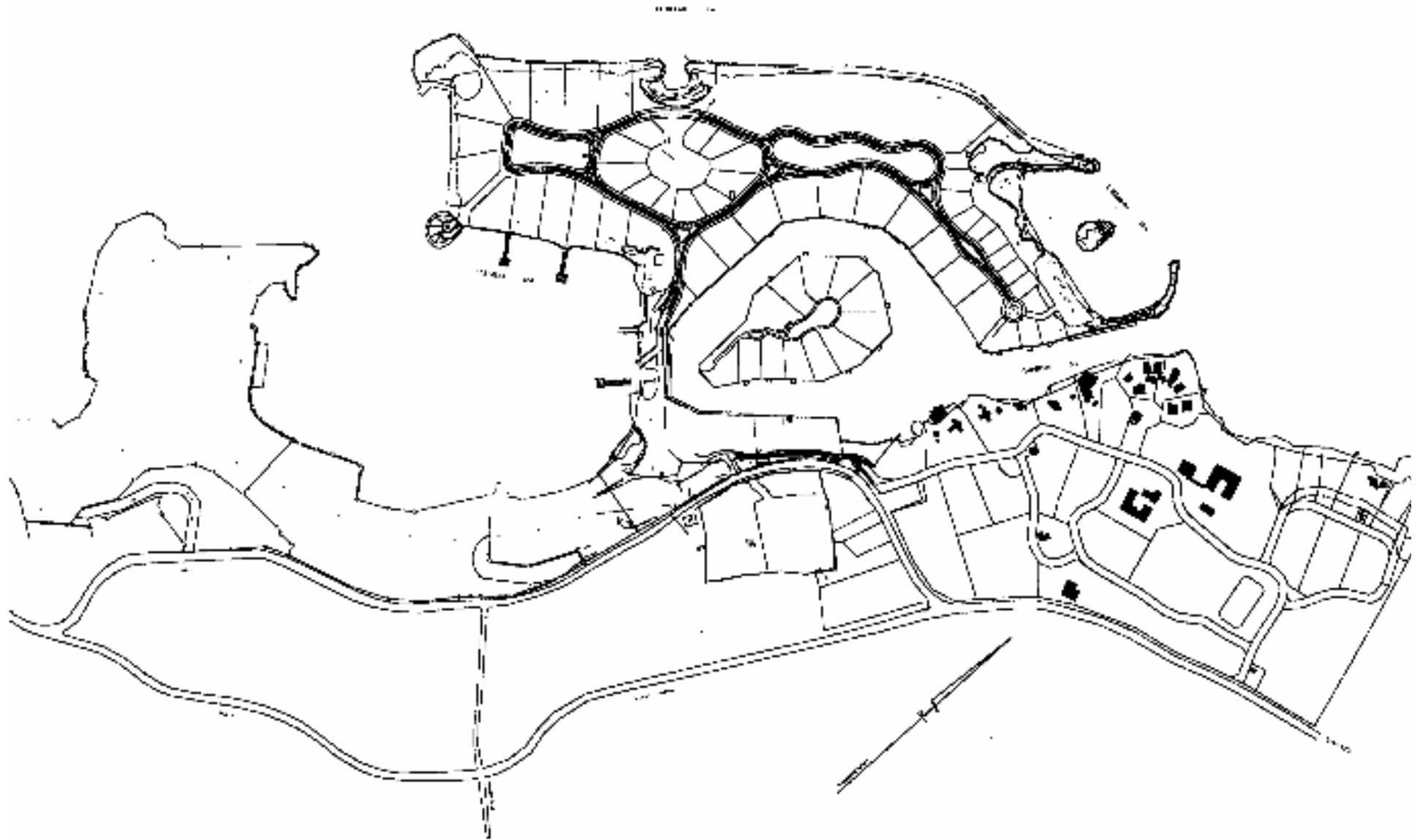
Environmental impact?

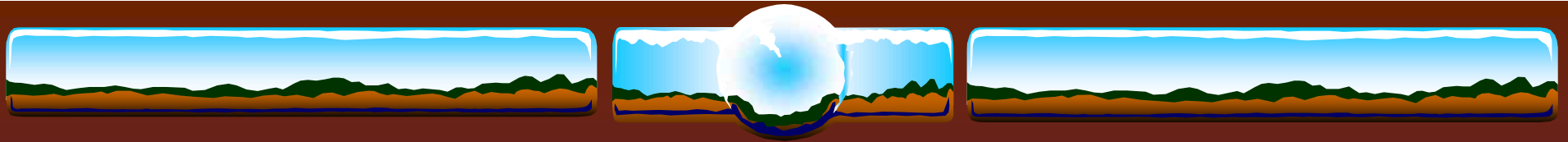
Any change in the existing condition of the environment caused, directly or indirectly, by human activity



Visualising impact assessment

- ❖ Superimpose proposed project ‘footprint’ over existing environmental situation
- ❖ Identify potential consequences and conflicts
- ❖ Determine appropriate means to avoid or reduce impacts to acceptable levels





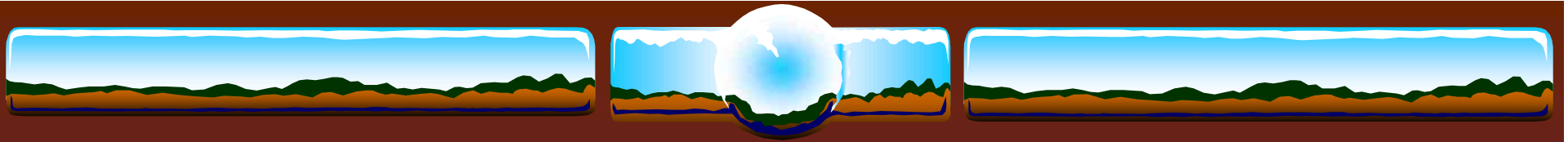
Types of impacts?

1. Occurrence of impacts:

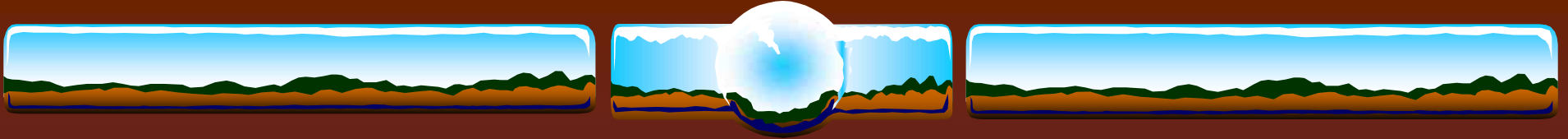
- ❖ site preparation
- ❖ construction phase
- ❖ post-construction (operations)

2. Classification of impacts:

- ❖ positive or negative
- ❖ direct or indirect
- ❖ short or long-term
- ❖ reversible or irreversible
- ❖ cumulative

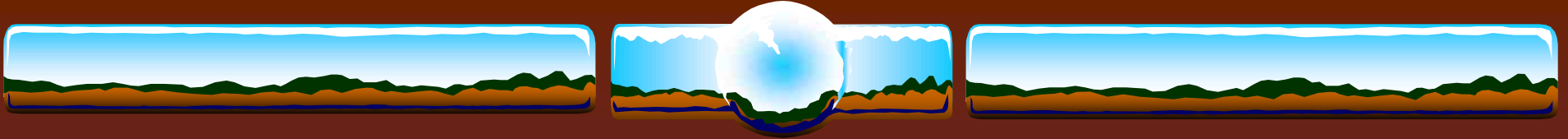


4. Environmental impacts & mitigation



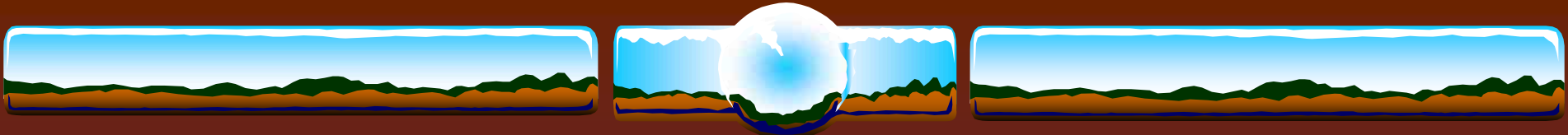
Construction phase impacts (including site clearance)

- ❖ Loss of land-use options – irreversible commitment of land resources
- ❖ Sea defense repairs – loss of corals & lagoon benthos
- ❖ Land clearing – loss of terrestrial habitat & biodiversity
- ❖ Piling works – marine sediment disturbance & noise
- ❖ Soil erosion
- ❖ Nuisance dusting
- ❖ General construction noise
- ❖ Earth material sourcing



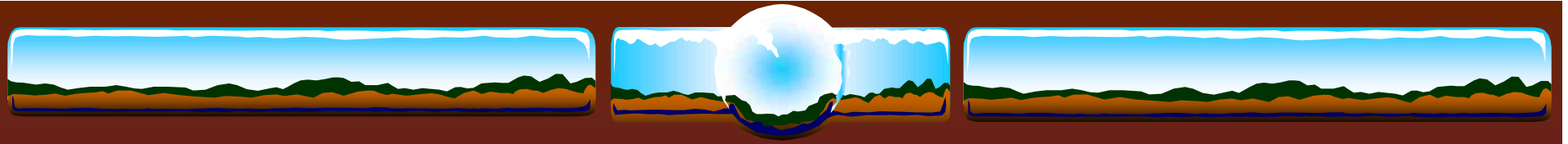
Construction phase impacts (including site clearance)

- ❖ Materials transportation – dusting & spillage
- ❖ Materials storage – washout of fines
- ❖ Modification of surface drainage
- ❖ Disposal of construction waste
- ❖ Sewage & litter disposal
- ❖ Replanting & landscaping
- ❖ Employment/income generation
- ❖ Roadside vending – unsightly, litter
- ❖ Visual intrusion on seascape

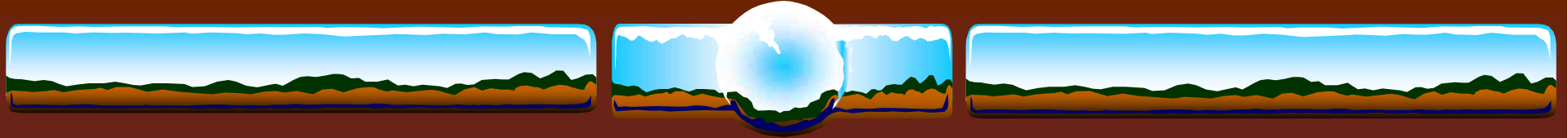


Resort operations/habitation impacts

- ❖ Employment
- ❖ Water supply
- ❖ Depletion of water resources
- ❖ Sewage treatment & disposal
- ❖ Thalassotherapy spa effluents
- ❖ Solid waste disposal
- ❖ Use of electricity – fossil fuel combustion
- ❖ Worker housing demand & uncontrolled settlement
- ❖ Misuse of coral reef resources
- ❖ Road traffic congestion

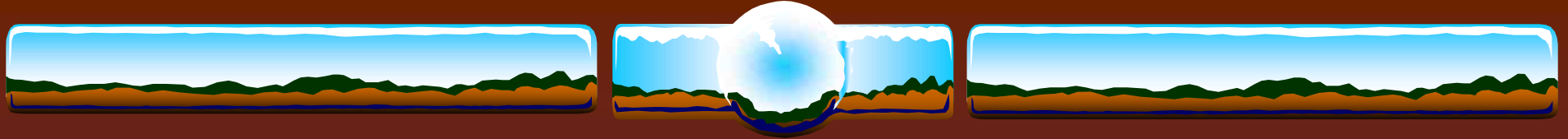


5. Summary & conclusions



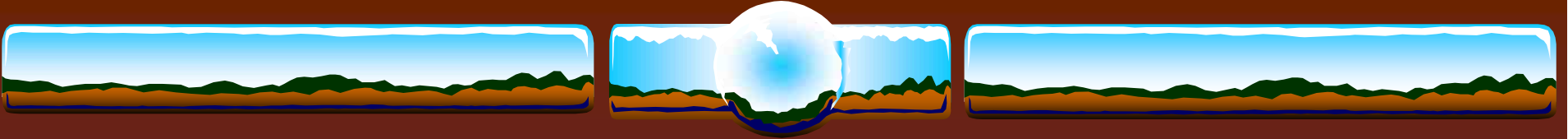
Summary of significant impacts - construction

- ❖ Loss of land use options
- ❖ Direct damage to corals & bottom dwelling organisms during revetment repairs & SW groyne construction
- ❖ Loss of habitat during lagoon deepening
- ❖ Sediment disturbance, turbidity & noise during piling activities
- ❖ Inappropriate construction waste disposal
- ❖ Employment



Summary of significant impacts - operations

- ❖ Solid & sewage waste disposal
- ❖ Consumption of electricity generated by fossil fuel combustion
- ❖ Uncontrolled settlement induced by development
- ❖ Misuse of coral reef resources by snorkellers & divers
- ❖ Employment
- ❖ Local & national economic development



Conclusions

- ❖ All identified negative impacts can be avoided or reduced to acceptable levels
- ❖ Construction must be carried out by competent contractor operating under strict terms of engagement and complying with properly designed environmental management plans
- ❖ Environmental monitoring programme should be undertaken to measure/ensure compliance
- ❖ Regular water quality monitoring
- ❖ Blue Flag certification

Thank you

