Site selection criteria

Use of GIS (Geographical Information System) for site selection
Site selection criteria – Factor to consider

- Conflicting uses of area
- Shore line contour
- Depth profile
- Exposure to wind
- Fetch
- Currents
- Maximum wave height
- Tides
- Water temperature
- Salinity
Site selection criteria – Factor to consider

• Dissolved oxygen concentration
• Pollution (organic and inorganic)
• Phytoplankton and zooplankton occurrence and distribution
• Potential danger of red tides, plankton blooms, biofouling
• Predators - crabs, fish, birds, seals, etc.
• Flora and fauna studies (indicator organisms)
• Accessibility to the site – roads, transportation, airport, port, etc.
Site selection criteria – Factor to consider

• Infrastructure - facilities, security, communication, electricity, freshwater
• Potential for expansion - availability of adjacent area
• Environmental assessment, monitoring and control – bioremediation and mitigation
• Legal framework – policies, regulations, licenses, permits, concessions, etc.
• Public and government acceptance of project
Basemap
Basemap
Basemap
Basemap
Basemap
Sensitive areas
Sensitive areas
Wave model
Wave model
Wave model
Criteria for fish farming

• Suitable depth
  – 15 to 50 m

• Infrastructure
  – Road preferable less then 1 km away

Excluding factors

• Wave
  – More then 1 m height

• Rivers
  – Large river 3 km, other river 1.5 km

• Sensitive areas
  – Coral reef 300 m away
Criteria for mariculture park
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Criteria for mariculture park
Criteria for mariculture park
GIS result
GIS result
Calauag
Alabat
Perez