

2.2 Assess natural systems

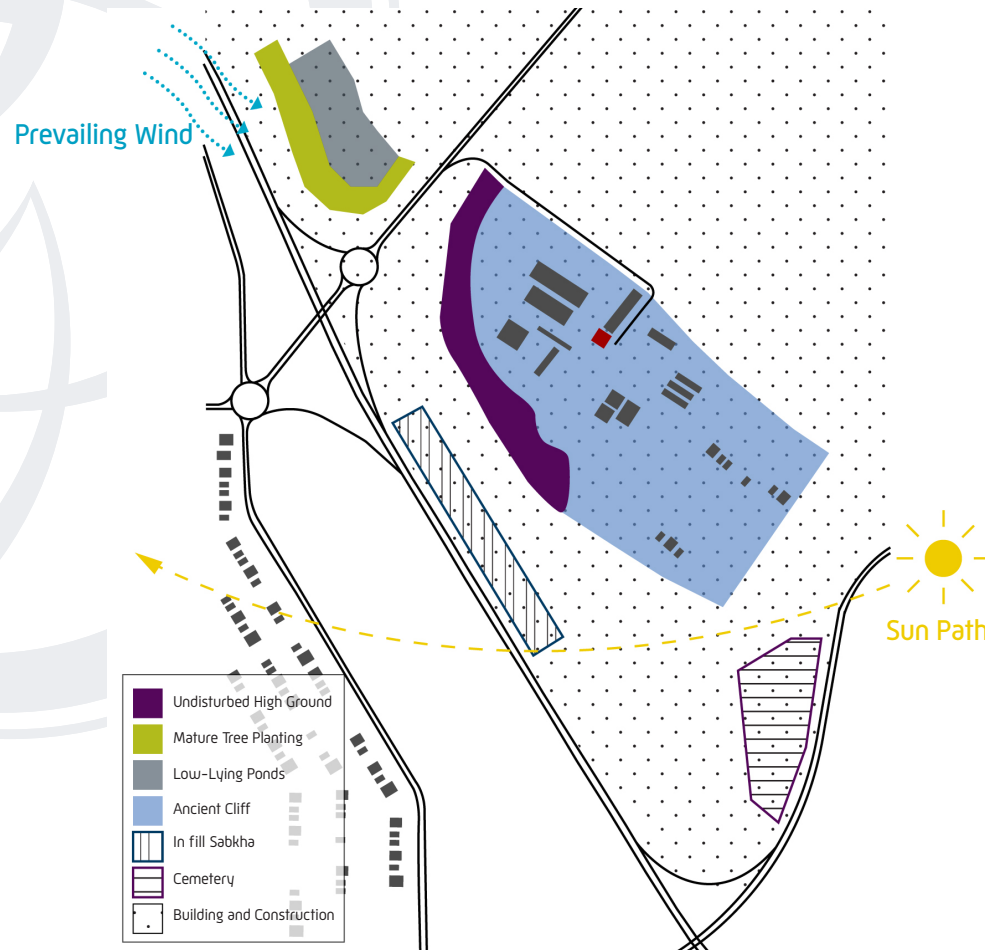
Related Credit: NS-R1: Natural Systems Assessment

At the beginning of the design process – and before site clearance takes place, undertake an assessment of the natural systems in the context of the project site:

- the area of probable impact surrounding the project site;
- sub-regional scale; and
- regional scale.

The assessment can be a combination of desk top studies and field surveys. As a minimum, a field survey, including a Phase I Habitat survey, or similar, must be completed for the project site itself. A desk top study or similar would suffice for the area of probable impact, sub-regional and regional analyses.

Example 2.2a: Site plan showing natural systems



The natural system assessment should cover:

Topography, geology and soil conditions

Topography, geology and soil conditions are important for understanding key view points, how building foundations should be constructed, how different areas will accommodate landscaping and how the site will drain both rainwater and irrigation.

Hydrology and groundwater

Groundwater is a precious environmental resource. Groundwater conditions and any groundwater abstraction, hydrological conditions of the site should be identified to determine the drainage strategy and susceptibility of groundwater to pollution/contamination.

Waste & contamination

Any contamination on site by petrol, refuse, or other chemicals and materials that could be harmful to human health or the environment should be identified to determine the need for remediation. If previously unreported contamination is found or suspected, the site developers should contact the relevant environmental agency to determine further testing and remediation requirements.

Coastal conditions

The coastal environment requires careful management as highlighted in the 2030 Plan. Many coastal areas contain mangroves that are an important symbol for the city. Waterfront developments should consider a potential rise in sea level+ and adapt designs accordingly.

Archaeological features

Appropriate desk studies and consultations with relevant government bodies such as Abu Dhabi Authority for Culture and Heritage (ADACH) should be carried out to determine the potential for archaeological features to be found on site. During the field survey any notable features should be recorded.