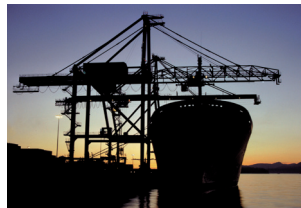


GREEN PORTS

What shade of green are you?



With legislation putting pressure on ports to act more responsibly, there is little wonder that improved environmental management is fast becoming a key requirement for port developers and operators.

As a world leading water's edge consultancy with a proven track record, Royal Haskoning is committed to achieving environmental consents for port, harbour and marina developments, as well as realising the sustainable design, build and operation of these facilities in line with international best practice.

We provide environmental services for all stages of port development and operation. Our principal services and some of our project experiences are outlined below.

FEASIBILITY, PLANNING AND SUSTAINABILITY

Feasibility and planning	
Site selection and feasibility studies	Port of Sheerness, feasibility study and Master Plan, UK Feasibility study relating to reclamation and development potential in a historic (fort and WWII) landscape and operational port. Master planning for the port and community regeneration. Port of London Authority environmental audit, UK Environmental audit to determine the potential contamination of historic and current activities. We undertook a qualitative risk assessment to propose environmental liability avoidance and risk management actions. Environmental due diligence container terminal, Yemen Audit to assess all environmental risks at the terminal in relation to air, ground and groundwater pollution, for use in client negotiations. Northern Gateway Development, Teesport, UK Preparation of a legislative 'route map' to consent, sustainability appraisal for planning approval and flood risk assessment.
Due diligence	
Consents and EU legislation guidance	
Flood risk management	
Sustainability	
Life cycle analysis	
Sustainable construction, e.g. SUDS, paving, recycled materials	
Sustainability appraisals	

DESIGN AND CONSTRUCT

Environmental Assessment	
Screening and scoping studies	Trinity III Terminal at the Port of Felixstowe, UK EIA for large container terminal extension, dredging and reclamation project adjacent to a number of designated nature conservation sites; included a Habitats Directive mitigation and compensation package. Port of Rotterdam Extension, Maasvlakte 2, Netherlands EIA, including assessment for land reclamation, 400 Mm ³ of sand extraction, emissions, and analysis of the environmental compensation measures. Port of Duqm, Oman EIA for the construction and operation of a new container terminal facility at a greenfield site. Development in Harwich Haven: In-combination Effects, UK
Consultation and stakeholder engagement	
Baseline environmental assessment	
EIA, SEA and AA	
Monitoring and mitigation packages	
Environmental management plans	
Cumulative environmental assessment	

What shade of green are you?

DESIGN AND CONSTRUCT

Surveys, assessment and monitoring	
Ecology - terrestrial, coastal, marine (dive surveys) and freshwater	<p>Maputo port dredging assessment, Mozambique Baseline investigations, modeling, assessment and monitoring to establish and manage the environmental impacts from dredging and disposal.</p> <p>Port air quality investigation, Worldwide Investigation into the air quality issues for ports and shipping. Evaluation of existing initiatives and measures for emission reduction.</p> <p>Noise and air quality assessment, Dublin port expansion, Ireland Noise measurement survey and impact assessment for noise and air quality from port construction and operation, shipping, and offsite road and rail.</p> <p>Green travel plan, Good Hope Hospital NHS Trust, UK Assessment to support planning application for a 350 space multi-storey car park.</p>
Fisheries assessment	
Water and sediment quality	
Noise, light, air quality and odour	
Transportation assessments	
Shipping and navigational safety	
Archaeology and heritage	
Socio-economics	
Landscape	

OPERATIONAL ENVIRONMENTAL MANAGEMENT

Environmental management	
Environmental management systems and audits	<p>Environmental management system Harwich Haven Authority, UK Initial review, design and implementation of EMS to achieve ISO 14001 certification. Delivery of environmental awareness training.</p> <p>Ballast water risk assessment, Russia Environmental risk assessment and monitoring design for potential invasive species entering the Port of Prigorodnoye.</p> <p>Port CO₂ emission calculations, Worldwide Calculation of CO₂ emissions for office buildings, pavements and quays across worldwide locations. Provided recommendations for sustainable design.</p> <p>London Gateway permitting, UK Provided waste management advice and obtained environmental permit for the dewatering of placed dredgings.</p>
Ship discharge (ballast water) management	
Waste minimisation and management	
Habitat management	
Training and workshops	
Energy and emission reduction strategies	
Carbon footprinting, climate change	
Security and response planning	
Emergency and contingency planning	<p>SPS code & EU directive 2005/65/EG, Zeeland Overall port security plan for the ports of Zeeland, including structure for all relevant parties such as customs, police and port authorities.</p> <p>Ports development study and master plan, Tanzania EIA, including assessment and emergency planning for accidental pollution events (spills), hazardous cargoes and waste transport and disposal.</p>
Oil spill response planning	
Health and safety policy and implementation	
Port security planning	
Hazardous cargoes	

To find out more please visit our website, or speak directly with one of our experts:



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