



## WSP Environment & Energy Capability Statement

UNITED  
BY OUR  
DIFFERENCE



# CORPORATE PHILOSOPHY, STRUCTURE AND SERVICES

## Our Vision

Our vision is to provide an independent, innovative and professional service whereby we strive to achieve a balance between environmental protection, social desirability and economic development.

WSP Environment & Energy (WSP) is a leading South African environmental consultancy with a broad range of expertise and over 20 years experience in the regional environmental market. Whilst we are operated by WSP Environmental Ltd, a global environment and energy consultancy listed on the London Stock Exchange (WSP Group plc), we are also committed to transformation in our operational region having achieved Level 4 BEE compliance in South Africa. As part of a global business we provide the regional marketplace with a dynamic blend of local and global expertise.

WSP's Environment and Energy has offices in Durban, Cape Town, Johannesburg and Pietermaritzburg. WSP is owned by WSP Group Africa Ltd, a 900-member strong subsidiary of WSP Group plc, an international FTSE 250 management, engineering and built environment consultancy, with 10,000 employees worldwide, which is listed on the London Stock Exchange. As part of WSP Group, we have access not only to a broad range of environmental and sustainability specialists, but to leading international engineers across the full range of disciplines: energy, electrical, civil, and structural, among others.

WSP has received a number of international awards for our contribution to sustainable development including the Acquisitions Monthly Environmental Advisor of the Year Award for 2010, and the Winner of the 2009 and 2010 Big Tick Award for Climate Change, awarded by the Prince of Wales's Business in the Community charity, based upon our global climate change consulting services to clients.



[www.copenhagencommunique.com](http://www.copenhagencommunique.com)



## Our Values

- Trust
- Sharing and Supporting
- Pride and Passion
- Sustainability
- Innovation

By incorporating our principles of Trust, Sharing and Support, Pride and Passion, Sustainability and Innovation into our day to day operations, we are able to deliver an independent, insightful and professional service to our clients to achieve a balance between environmental protection, social desirability and economic development.

Stronger regulatory control, market pressures, stakeholder awareness and global concerns, have caused businesses to adopt an innovative, proactive approach to the evaluation of environmental issues. The provision of sound environmental advice is therefore becoming an essential ingredient for progressive business management and success. By fully understanding our clients business, associated operations and requirements, and combining this knowledge with our strong legal and technical competence we are able to provide our clients with sound strategic advice and improved environmental performance.

We pride ourselves on our reputation for delivery and technical excellence and provide a broad range of environmental and energy related services across a range of economic arenas including the industrial, mining, financial, tourism and public sectors.

## STAFF WELFARE

Creating the optimum social and environmental framework for staff is essential if we are to attract and retain the intellectual capital that sets our business apart from our competitors. We actively promote capacity building through staff and knowledge transfers between our international offices.





## OUR SERVICES

WSP brings to the South African marketplace a dynamic blend of local expertise and global cutting-edge technology. Being part of a large global company, we are also able to draw on considerable international resources and expertise accumulated over many years.

We have a well established team of environmental scientists and our team can provide a range of environmental solutions to businesses in the following fields:

- Air Quality Management
- Asbestos Surveys
- Climate Change Adaptation and Mitigation Strategies
- Contaminated Land and Remediation
- Corporate Social Responsibility
- Due Diligence, Compliance and Liability Audits
- Energy Efficiency and Management
- Energy Project Development and Investment
- Environmental Engineering
- Environmental Management Systems
- Environmental Project Management
- Human Health and Ecological Risk Assessment
- Environmental Toxicology
- Environmental Training
- Geotechnical Investigations
- Groundwater Monitoring and Modelling
- Integrated Environmental Management
- Public Participation Programs
- Renewable Energy
- Surface Water Hydrology
- Sustainability Management Systems
- Sustainability Reporting
- Sustainable Solutions
- Waste Engineering
- Waste Management, Waste Characterisation and Delisting



There is a growing awareness that if an organisation or project is to succeed in the 21st century it will need to meet new challenges by working in partnership with key stakeholders and integrating social and environmental factors into business decisions alongside the more traditional economic issues. We deliver proactive sustainability solutions, offering real business benefits, which include reducing operating costs, protecting corporate reputations and meeting stakeholder aspirations in society.

## CORPORATE SUSTAINABILITY

Our key capabilities and services include the following:

- Corporate Sustainability Strategy, Reporting and Verification
- Benchmarking Tools (e.g. Sustainability Assessment Technique)
- Sustainability and Value Management Systems
- Corporate Governance and Communicating with Stakeholders (King and Turnbull Reports)
- Community Enhancement and Corporate Citizenship
- Teambuilding and Employee Volunteering Programmes
- Green Procurement
- Energy Efficiency, Renewable Energy and Climate Change Strategies
- Waste Management and Eco-labelling
- Local, Regional and National Strategy Planning (e.g. Local Agenda 21 policy and plans)

Our Sustainability Assessment Technique (SAT) is designed to visually represent the assessment, and superimposed onto it are the impacts associated with a development. Used throughout the project life cycle, it will identify the threats and opportunities associated with the development.



A changing climate threatens those businesses that cannot adapt in an efficient manner. How businesses adapt can influence the longevity and profitability of your business. WSP assesses the climate change risk to business using holistic outlook taking into account economic, social and environmental factors. Incorporating business resilience, resistance and continuity plans will ensure your business can react positively to a business interruption and will be in a far better position to prevent, survive, prosper and gain an advantage over less prepared competitors.

## CLIMATE CHANGE ADAPTATION AND MITIGATION STRATEGIES

WSP offers an integrated approach to business climate risk management, utilising global expertise across all spheres. Our offering can be adapted to meet the needs of your business.

Our basic capabilities include the following:

- Climate Risk and Opportunity Assessments
- Detailed Carbon Inventory Analyses
- Business Adaptation Strategy
- Assisting with Carbon Disclosure Project (CDP) responses
- Renewable Energy and Energy Efficiency
- Carbon finance services:
  - Assisting with access to specialised finance for sustainable energy investments.
  - Carbon Credit projects (Kyoto CDM, voluntary market etc.)
  - Supporting client transactions via carbon offset market.

## FOOTPRINTING SERVICES

Responding to climate change can be best perceived as a journey, starting with Greenhouse Gas (GHG) inventory and acquiring an understanding your organisation's climate change risks. Further development of this response includes exploring the broader environmental impacts of products and embedding sustainability of one's of climate change specialists, but experts across various environmental disciplines, including sustainability, toxicology, ecology and waste management. WSP are specialists in the field of footprinting – from life cycle assessments for Apple's Macbook laptops, water footprinting for GlaxoSmithKline, ecological footprinting for the City of London or carbon emissions modelling for the South African recycled oil industry, we have a proven track record in developing solutions to our clients' sustainability needs.

WSP's footprinting services include:

- Comprehensive Product Life Cycle Assessment (LCA)
- End-to-End Carbon Footprinting and Carbon Labelling (PAS2050 methodology)
- Water Footprinting
- Ecological Footprinting



Understanding energy usage and potential efficiency gains within a business or industry sector is becoming increasingly important in a world of tightening legislative requirements and increased pressure from governments and business shareholders to lower carbon emissions resulting from production processes. We are able to operate in close co-operation with the WSP Energy Africa group and Green Buildings Business of WSP, and in house engineering teams to provide energy advice on efficiency options in line with the needs of individual business requirements.

## ENERGY MANAGEMENT AND EFFICIENCY

### Our integrated services include:

- Energy risk analysis
- Process alternatives assessment
- Business, industry or country specific assessments of energy efficiency potential
- Development of solution implementation plans

### Specialist services offered by WSP Green Building Services include:

- Sustainability in the built environment consultants
- Consulting to professional team to assist in designing sustainable buildings
- Facilitate and administer Green Star accreditation process
- Architectural, urban and engineering background



Integrated Environmental Management (IEM) covers all aspects of environmental management in the project life cycle, from planning and design, to construction, operations, decommissioning and closure.

## INTEGRATED ENVIRONMENTAL MANAGEMENT

We offer environmental services appropriate to all project phases such as:

- Risk assessments and fatal flaw analyses
- Scoping studies
- Route/site/process alternatives assessment
- Public participation programmes
- Environmental impact assessments
- Environmental management plans
- Environmental management programmes
- Environmental monitoring of construction and operational activities
- Closure plans

Our studies are all conducted according to the regulatory frameworks of the countries in which we operate, so that we can obtain regulatory approval for our clients. Internationally funded projects are carried out in the manner specified by the lending agency and to world standards of best environmental practice.

In particular, we have experience in the following business sectors:

- Mining
- Infrastructure development (power lines, pipelines, roads, telecommunications)
- Building construction
- Manufacturing
- Industry
- Eco-tourism
- Water development projects
- Waste disposal
- Community development





Public participation involves a process resulting in improved decision-making. The process should lead to a joint effort by stakeholders, technical specialists, the authorities and the proponent who work together to produce more informed decisions.

Strong and independent facilitation, coupled with the necessary empathy for people's concerns, is required during meetings with stakeholders. At times, it is necessary to direct stakeholder concerns to the authorities rather than to the proponent.

## STAKEHOLDER ENGAGEMENT

WSP offers comprehensive stakeholder engagement services, which include the following:

- Design of public participation processes
- Identification of stakeholders
- Compilation and maintenance of stakeholder databases
- Co-ordination and facilitation of public meetings, stakeholder workshops, multi-sectoral meetings and Open Houses/Days
- Compilation of proceedings of meetings and verification of issues
- Compilation of issues trails
- Liaison with authorities, clients and stakeholders to facilitate negotiations
- Report compilation detailing public participation process on projects


WSP provides strategic advice and operational support to a range of clients across five continents. We strongly believe that our team is at the forefront of Environmental Systems (EMS) in a way, which integrates environmental issues into existing business systems and operations.

## ENVIRONMENTAL MANAGEMENT SYSTEMS AND TRAINING

In particular we can offer the following services:

- Raising awareness and providing information on the full range of EMS approaches and recognised standards (e.g. EMAS, ISO 14001:2004 series, OHSAS 18000 etc)
- Advanced training for EMS implementation and auditing
- System design, gap analysis and implementation on specific projects including the development of procedures
- Auditing throughout the development of an EMS and identification of the potential for system improvement and pre-preparation audits
- Development and review of legal registers
- Software based implementation tools and training
- Supply chain management protocols and coaching programmes
- Certified EMS Implementation Training Course
- Certified EMS Internal Auditors Training Course

Our EMS Team can draw on experience of EMS work across a broad range of economic sectors including: construction, manufacturing (e.g. BMW), mining, financial services, government agencies and departments and office based organisations.



The Air Quality Unit (AQU) offers in-depth experience in all phases of air quality management, from calculation of emissions inventories, developing and implementing monitoring programs, air quality modelling in support of Environmental Impact Assessments or permit applications to designing pollution abatement strategies and emission control systems.

## AIR QUALITY MONITORING AND DISPERSION MODELLING

State of the art equipment, coupled with strategic modelling and risk assessment techniques enable WSP to evaluate problems accurately and engineer workable solutions to complex and potentially costly environmental issues.

### Our core air quality management services include:

- Source, fence line and ambient air quality monitoring
- Air emissions inventories
- Atmospheric source-dispersion modelling
- Meteorological monitoring and data analysis
- Best practical available technology assessment
- Pollution controls system and cost-benefit analysis
- Quantitative health risk assessments for hazardous air pollutants
- Occupational health and safety monitoring
- Greenhouse emissions and carbon footprinting



The Contaminated Land Unit (CLU) in WSP offers consulting services, ranging from site assessment and investigation through to risk assessment, and contracting services ranging from environmental remediation and on-going monitoring to regulatory compliance and sign-off. At present, clean-up contracts can be planned as procured services via a tender process with WSP CLU acting as consultants or on the basis of a turnkey design and supply project.

## LAND RESTORATION AND GROUND ENGINEERING

### CONSULTING SERVICES:

- Contaminated land and geohydrological assessments
  - Desk top and feasibility studies
  - Full ground investigations
  - Design, implementation and management of groundwater monitoring systems
  - Soil and groundwater sampling and monitoring for organic and inorganic contaminants
  - Geohydrological and contaminant plume modelling
- Human health and risk assessment
  - Quantitative and qualitative risk assessment
  - Source, release mechanism, pathway receptor relationships
  - Determination of the need for remediation
  - Determination of site-specific remediation, goals and targets
  - Waste management
- Waste management strategy development
  - Waste classification, hazard rating and delisting
  - Landfill site assessment and investigation
  - Waste treatment option assessments
- Surface water hydrology
  - Surface water management plans
  - Runoff modelling
  - Water balances
  - Floodline assessments
  - Water licensing and water use registrations
  - Reserve determination
- Geotechnical investigations
  - Infrastructure and development
  - Foundation design engineering

### CONTRACTING SERVICES:

WSP offers a full service remediation business, local and international, with a solution driven approach to remediation projects of all sizes and types.

We have a track record in negotiated settlements of environmental contamination issues and provide an integrated technical, financial, legal and environmental service to ensure the right solution.

Services include:

- Site investigations
- Land option appraisals
- Commercial risk evaluation
- Material classification and treatment studies
- Technical and financial feasibility studies
- Laboratory and field trials
- Risk-based remediation design
- Regulatory authority consultation
- Remediation contracting



## LIABILITY TRANSFER

The outsourcing of environmental liabilities using Active Transfer™ allows a business to eliminate environmental liabilities without losing control of its assets. WSP is partnered with Willis and is capable of providing risk management, environmental engineering and financial modelling to provide a cost effective and permanent solution.

## DUE DILIGENCE, COMPLIANCE AND PRE-ACQUISITION AUDITING

As southern Africa becomes more and more part of the 'Global Village', increased awareness of environmental liabilities facing business and the risks associated with sub-standard environmental performance, will intensify. Our auditing services are designed to assess all the environmental risks and liabilities associated with commercial and industrial businesses and their assets, including identifying any latent environmental damage, regulatory non-compliance and third party liabilities.

## ENVIRONMENTAL FINANCE

WSP advises on business and project risks presented by environmental and operational issues. Using quantitative techniques favoured by financial analysts, models and forecasts are generated to assess, for example, the cost of environmental liabilities, asset impairment issues, or the impacts of future regulation and policy on the project or business enterprise.

We can therefore quantify risk, whether adverse or positive, in monetary terms and develop financial tools that when integrated with technical solutions from other parts of the business, lead to the development of a total risk management solution. This manifests itself in the implementation of strategies ranging from basic control measures through to elaborate financing tools, such as captive insurance and alternative risk transfer (ART).



The WSP is utilising its expertise in environmental sustainability and the built environment to provide consulting advice to clients on optimal planning / urban design for sustainable outcomes. WSP, along with traffic engineers, housing specialists and economists, have been involved with the development of Local Area Plan (LAP) projects for various municipalities within South Africa.

## SUSTAINABLE MASTERPLANNING

Our client offerings within this field include:

- Environmental guidance from conceptual planning to detailed design.
- Development Risk Assessment, Including 'No-go' Options.
- Strategic Environmental Impact Assessment & Identification of opportunities.
- Development Parameters Assessment.
- Integrated Assessment GIS and Mapping.
- Land-use management (LUMs) advice.
- Project implementation plans.



# CONTACT US:

WSP has offices located in Johannesburg, Durban, Pietermaritzburg and Cape Town.

## JOHANNESBURG OFFICE:

WSP House, Bryanston Place Office Park  
199 Bryanston Drive  
Bryanston, 2021  
South Africa  
P O Box 5384  
Rivonia 2128, RSA  
Tel +27 (0)11 361 1380  
Fax +27 (0)11 361 1381

E-mail: [wspe@wspgroup.co.za](mailto:wspe@wspgroup.co.za)

## CAPE TOWN OFFICE:

3rd Floor  
35 Wale Street  
Cape Town 8001  
South Africa  
P.O. Box 2613  
Cape Town 8000, RSA  
Tel +27 (0)21 481 8700  
Fax +27 (0)21 481 8799

E-mail: [wspe@wspgroup.co.za](mailto:wspe@wspgroup.co.za)

## DURBAN OFFICE:

WSP House, 1 on Langford  
Langford Road  
Westville 3629  
South Africa  
P O Box 1442  
Westville 3630, RSA  
Tel +27 (0)31 240 8860  
Fax +27 (0)31 240 8861

E-mail: [wsped@wspgroup.co.za](mailto:wsped@wspgroup.co.za)

## PIETERMARITZBURG:

Suite 7B  
Cascades Office Park  
21B Cascades Crescent  
Cascades 3202  
PO Box 689  
Hilton 3245, RSA  
Tel: +27(0)33 347 5391  
Fax: +27(0)33 347 5391

E-mail: [wsped@wspgroup.co.za](mailto:wsped@wspgroup.co.za)