BREEAM ASSESSMENT REPORT

RYBKA

125 High Holborn, London

Assessment

Based on BREEAM for Offices 2005

JANUARY 2005

Date	Revision	Status	Comment
24/12/2004	-	Preliminary	For comment by all parties
20/01/2005	A	Preliminary	Minor amendments, issued for comment by all parties

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2 EXECUTIVE SUMMARY

The building could achieve a score of 80.88% in the core assessment which equates to an EPI of 9.

The building could achieve a score of 56.98% which equates to a BREEAM rating of VERY GOOD.

The building can be seen to perform very well in the energy, transport and health and wellbeing sections. It does not perform so well in Materials, Land and Ecology, and Pollution sections. Extra credits can be achieved here as detailed in the validation statements.

2.2 Overall Summary of Credits

Table 1

Category	Credit	Core / Design	Credits Available	Credits Achieved
Management	Commissioning Monitor	D	1	1
	Commissioning Clauses	D	1	1
	Building User Guide	D	1	1
	Construction Site Impacts	D	6	4
	Seasonal Commissioning	D	1	0
Health & Wellbeing	Cooling Towers	C	1	1
	DHW Legionellosis	C	1	1
	Openable Windows	C	1	0
	Failsafe Humidification	C	1	1
	Internal Air Pollution	C	1	1
	Ventilation Rates	C	1	1
	Daylighting and View Out	C	2	1
	Glare	C	1	1
	High Frequency Lighting	C	1	1
	Electric Lighting Guide	C	1	1
	Lighting Zones	C	1	1
	Thermal Zoning	C	1	1

Category	Credit	Core / Design	Credits Available	Credits Achieved
	Thermal Modelling	D	1	1
	Internal Noise Levels	D	1	0
Energy	Electrical Sub-metering	C	1	1
	Tenancy Sub-metering	C	1	1
	Fabric & Form	C	5	4
	CO_2 Emissions	D	10	3
Transport	Transport CO_2	C	10	9
	Cyclist facilities	C	2	0
	Public Transport Commuting	C	1	1
	Public Transport Business Use	C	1	1
Water	Water Consumption	C	3	2
	Water Meter	C	1	1
	Mains Leak Detection	C	1	0
	Sanitary Supply Shut Off	C	1	0
Materials	Asbestos	C	1	1
	Recyclable Waste Storage	C	1	1
	Reuse of Facade	D	1	0
	Reuse of Structure	D	1	0
	Materials Specification	D	4	0
	Recycled Aggregates	D	1	0
	Sustainable Timber	D	2	0
	Floor Finishes	D	1	1
Pollution	Refrigerant Leak Detection	C	1	1
	Refrigerant Recovery	C	1	0
	NOx Emissions	C	4	2

Category	Credit	Core / Design	Credits Available	Credits Achieved
	Water Runoff	C	1	0
	Watercourse pollution	C	1	1
	Refrigerant GWP	C	1	0
	Zero emission energy sources	C	1	0
	Reduction of light polution	C	1	0
	Insulant ODP & GWP	D	1	0
Land Use & Ecology	Reuse of Land	D	1	1
	Reclaimed Contaminated Land	D	1	0
	Ecological Value	D	1	1
	Change of Ecological Value	D	5	2
	Ecological Enhancement	D	1	0
	Protection of Ecological Features	D	1	1
	Longterm Impact on Biodiversity	D	1	0

3 INTRODUCTION TO BREEAM

The new building at 125 High Holborn, London, has been provisionally assessed using BREEAM 2005, the Building Research Establishments Environmental Assessment Method for offices.

BREEAM aims to measure a building impact on the environment by allocating points for systems, measures and practices that minimise those impacts. BREEAM sets out best practice criteria for a range of environmental issues. Independent assessors compare building designs against these criteria and credits are awarded where they have been met.

The scheme consists of a core assessment of the building fabric and services, with two optional parts relating to the quality of the design and procurement and the management and operating procedures. Credits can be achieved in each of the following eight categories:

- Management;
- Health and Wellbeing;
- Energy;
- Transport;
- Water;
- Materials;
- Land use and ecology; and
- Pollution.

The number of credits achieved is converted to a percentage score using the scheme weighting system that is intended to reflect the relative environmental impacts of the different issues. The percentage score is then converted to an overall rating for the building as shown below.

Table 2

Rating	Percentage Score
Excellent	≥ 70 %
Very Good	≥ 55 % and < 70 %
Good	≥ 40 % and < 55 %
Pass	≥ 25 % and < 40 %

The percentage of the core credits achieved is also expressed as an environmental performance indicator on a scale of 1 to 10.

4 PROJECT DETAILS

4.1 General Details

Table 3

Project	
Building	125 High Holborn, London
Architect	Sheppard Robson
Services Consultant	Rybka
Main Contractor	To be confirmed
Services Subcontractor	To be confirmed
Assessment	
Assessment Type	Design and Procurement
Client representative	Healey and Baker
Rybka Project Number	300-055-01
Assessor	Matthew Jared Tel 020 7809 1816 Fax 020 7809 1801
Internal QA	John Simpson Tel 020 7809 1821 Fax 020 7809 1801

4.2 Basis of Assessment

The assessment is based on information contained in the outline planning stage document issued by the Services Engineer, and the latest planning drawings issued by the Architect. This version of the document should be considered draft and should serve to highlight the measures required to achieve the same rating in a formal BREEAM assessment.

It should be noted that during a formal assessment, evidence is required to achieve each credit and therefore the design team and contractor(s) should carefully note the assumptions made in the credit validation statements.

The final score achieved will be affected if credits assumed at this stage are subsequently withheld through lack of evidence. This document only gives an indication of the potential score which may be achieved.

4.3 Description of Project

125 High Holborn is a seven storey plus basement office development in Holborn, London.

Details of the constructions are not available at present and therefore fabric and glazing performance has been taken as that necessary to achieve Building Regulations compliance (AD L2).

The building will be heated and cooled using a four pipe fan coil system served by central chiller and boiler plant. Ventilation will be via ductwork from a central air handling system.

Lighting will be via fluorescent fittings.

The building features an atrium which has been excluded from this assessment.

5 ASSESSMENT REPORT

5.1 Management Credits

Table 4

Credit	Criteria and Assessment	Credits Awarded
Man 1-2	1 CREDIT where evidence can be provided to demonstrate that a design team member(s) is appointed to monitor commissioning on behalf of the client, and that where there are complex systems a commissioning agent or manager is appointed. **The credit is awarded and assumes that the contractor appoints a commissioning agent.**	1
Man 1-4	1 CREDIT where evidence can be provided to demonstrate that pre-commissioning, commissioning and quality monitoring are passed on to the appropriate contractors and all trades on site in accordance with BSRIA/ CIBSE guidelines. **Appropriate clauses will form part of the Rybka specification.**	1
Man 1-5	1 CREDIT is awarded where evidence can be provided to demonstrate that there is provision of a simple guide, including information relevant for the 'non-technical' building manager and occupants. This guide can be contained in the O&M manuals, but must be an extractable or 'stand alone' section. **The production of a building users guide will be a requirement of the Rybka specification.**	1
Man 1-6	Up to 6 CREDITS are available where established good practice is adopted on site in line with the BREEAM Construction Site Management Checklist. **Credits are awarded based on assumption that:** **The contractor agrees to gain formal certification under the Considerate Constructors Scheme; and** **The contractor agrees to perform at least four of the following:** • **Monitor, report and set targets for CO2 or energy arising from site activities.** • **Monitor and report transport to and from site to enable CO2 emissions arising from transport to**	4

Credit	Criteria and Assessment	Credits Awarded
	be calculated. • **Monitor and minimise construction waste on site.** • **Sort and recycle construction waste on site.** • **Adopt best practice policies in respect to air (dust) pollution.** • **Adopt best practice policies in respect to water (ground and surface) pollution.** • **Monitor, report and set targets for water consumption arising from site activities.**	
Man 1-7	1 CREDIT is awarded where evidence can be provided to demonstrate that seasonal commissioning will be carried out during the first year of the buildings occupation. **Credit is withheld but could be given if seasonal commissioning was planned. Further information required at this stage.**	0

5.2 Health & Wellbeing Credits

Table 5

Credit	Criteria and Assessment	Credits Awarded
Hea 0-1	1 CREDIT where systems have been designed in accordance with CIBSE TM13 and the HSE Approved Code of Practice and Guidance (ACoP): , "Legionnaires' disease: The control of legionella bacteria in water systems" (rev 2000), or where there are no cooling towers specified. **There are no cooling towers specified.**	1
Hea 0-2	One credit where water systems have been designed or actions taken, to minimise risks of Legionellosis, using the HSE ACoP and CIBSE TM13. **This will form part of the Rybka specification / design.**	1
Hea 0-3	1 CREDIT where windows in the external façade to office areas are openable and on at least opposite sides for accommodation over 7m deep. The openable area should be the equivalent of 5% of the gross floor area of the building. This should have an even distribution across the office area so as to promote adequate cross ventilation. **The building is sealed and mechanically ventilated under occupancy.**	0
Hea 0-4	1 CREDIT where steam humidification is installed OR where no humidification is present.	1

Credit	Criteria and Assessment	Credits Awarded
	There is no humidification specified.	
Hea 0-5	1 CREDIT where location of air intakes and outlets are over 10m apart to minimise recirculation AND intakes (or openable windows) avoid sources of external pollution. **Inlets and exhausts are at roof level and therefore likely to be remote (>20m) from sources of external pollution. Attention to design should ensure the terminals are correctly positioned (>10m apart).**	1
Hea 0-6	1 CREDIT where either fresh air is provided at a rate of 12 litres per second per person in a/c or mechanical ventilation systems OR trickle vents are provided at the rate of 400mm2 per m2 of floor area (and credit Hea0-3 is achieved) in naturally ventilated buildings. **Fresh air will be provided at a rate of 16 L/s throughout the office areas. This rate is too high if the offices are non-smoking. It is assumed that the design rate can be relaxed to 12 L/s to obtain the credit.** **This level is considered by BREEAM to be the ideal balance between indoor air quality and energy consumption.**	1
Hea 0-7	Up to two credits where 80% net lettable office area is adequately daylit and where the occupants have a view. **It is unlikely that the building can achieve the credit for adequacy of day-lighting, however further investigation is necessary to confirm this. Depending on layout, all workstations should have a view out nearer than 7m, therefore one credit is awarded at this stage.**	1
Hea 0-8	1 CREDIT where an occupant controlled system of glare control (e.g. internal or external blinds) is fitted. **It is assumed that internal blinds will be installed on all glazing (except the atrium).**	1
Hea 0-9	1 CREDIT where high frequency ballasts installed in all general office luminaries. **High frequency ballasts will be a requirement of the Rybka services specification.**	1
Hea 0-10	One credit where lighting design is compliant with the addendum to CIBSE Lighting Guide 3, 2001 and has been designed to avoid glare and distracting screen reflections	1

Credit	Criteria and Assessment	Credits Awarded
	from electric lighting. **Lighting design to comply with LG3 will be a requirement of the Rybka services specification.**	
Hea 0-11	1 CREDIT where control of lighting in office areas relates to circulation space, perimeter areas and is zoned to provide separate control for groups of no more than 4 workspaces. **The zoning of the lighting should follow this guidance and further information is required in terms of potential space planning and lighting control systems to award this credit.**	1
Hea 0-13	1 CREDIT where local control is available for temperature adjustment in office areas, to cope with different load requirements. **Heating and cooling via fan coil units potentially allows individual control to each area. The design of the controls (BMS and local sensors) must allow for adequate zoning facilities to reflect different load requirements.**	1
Hea 1-2	1 CREDIT where assessments have been made of thermal comfort levels at design stage and used to evaluate appropriate servicing options. **The building will be modelled using TAS and from this appropriate servicing options and plant size will be established.**	1
Hea 1-3	1 CREDIT where the building design can be shown to achieve ambient internal noise levels between 35-40dB LAeqT in small offices, 40-45dB LAeqT in medium offices, 45-50 dB LAeqT in large offices. **If the design team can show these levels as targets for the building design this credit could be awarded. As the ambient internal noise levels are a factor of the envelope, external noise levels and plant noise, evidence is required that these levels are a target.**	0

5.3 Energy Credits

Table 6

Credit	Criteria and Assessment	Credits Awarded
Ene 0-2	1 CREDIT where direct sub metering is provided for substantive energy uses within the building covering lighting, small power and computer rooms. Catering facilities and any other major energy consuming plant must also be sub-metered if present. **This will be a requirement of the Rybka services specification.**	1
Ene 0-3	1 CREDIT where electrical sub metering of tenancy areas is installed in multi-occupant buildings or sub metering by floor plate / department is installed in single occupancy buildings. **This will be a requirement of the Rybka services specification.**	1
Ene 0-4	Up to 5 credits can be awarded, based on the predicted losses minus the gains in kWh/m² as follows: • 0 credits where the predicted fabric losses minus gains is above 70.01 and below -70.01 kWh/m²/yr; • 1 credit where the predicted fabric losses minus gains is between +/- 45.01 and 70 kWh/m²/yr; • 2 credits where the predicted fabric losses minus gains is between +/- 25.01 and 45 kWh/m²/yr; • 3 credits where the predicted fabric losses minus gains is between +/- 15.01 and 25 kWh/m²/yr; • 4 credits where the predicted fabric losses minus gains is between +/- 5.01 and 15 kWh/m²/yr; and • 5 credits where the predicted fabric losses minus gains is between 5 and -5 kWh/m²/yr. **As at this stage the constructions are unknown, this credit has been assessed using the minimum values that would be required under the building regulations.** **4 credits are awarded based in total losses – gains = 9.7** **This credit would be reviewed when construction details were received.**	4

Credit	Criteria and Assessment	Credits Awarded
Ene 1-1	Up to 10 credits can be awarded, based on the predicted carbon dioxide emission rate as follows (in $kg/CO_2/m^2/yr$): • 1 credit where the predicted net carbon dioxide emissions is less than or equal to 115; • 2 credits where the predicted net carbon dioxide emissions is less than or equal to 95; • 3 credits where the predicted net carbon dioxide emissions is less than or equal to 75; • 4 credits where the predicted net carbon dioxide emissions is less than or equal to 60; • 5 credits where the predicted net carbon dioxide emissions is less than or equal to 50; • 6 credits where the predicted net carbon dioxide emissions is less than or equal to 40; • 7 credits where the predicted net carbon dioxide emissions is less than or equal to 35; • 8 credits where the predicted net carbon dioxide emissions is less than or equal to 30; • 9 credits where the predicted net carbon dioxide emissions is less than or equal to 15; and • 10 credits where the predicted net carbon dioxide emissions is less than or equal to 0. **Credits awarded based on experience of buildings compliant with Building Regulations.** **A value of 62 $kgCO_2/m^2/yr$ is typical for this type of building giving 3 credits.**	3

5.4 Transport Credits

Table 7

Credit	Criteria and Assessment	Credits Awarded
Tra 0-1	Up to ten credits are available on the basis of net CO_2 emissions resulting from commuting. **From the BRREAM transport calculator, emissions are**	9

Credit	Criteria and Assessment	Credits Awarded
	found to be 496 kgCO_2/ person/year giving 9 credits. **If a green transport plan were put into place, one extra credit could be achieved.**	
Tra 0-2	Up to two credits where there is adequate provision of cycling facilities: cycle storage, showers and either lockers or a dedicated drying space for use by building occupants who cycle. **To achieve the first credit, 55 cycle space and 6 showers are required.** **To achieve the second credit changing facilities, lockers and / or drying facilities are required.**	0
Tra 0-3	1 CREDIT where good access is available to public transport networks, i.e. within 500m with at least a 15 minute service frequency to and from a local urban centre. **This credit should be achievable since Holborn and Chancery Lane tube stations are less than 500m away.**	1
Tra 0-4	1 CREDIT where there is good access to public transport networks, i.e. within 500m and where there is a 30 minute service frequency to and from a major transport node. **This credit should be achievable since Holborn and Chancery Lane tube stations are less than 500m away.**	1

5.5 Water Credits

Table 8

Credit	Criteria and Assessment	Credits Awarded
Wat 0-1	Up to 3 credits are awarded on the basis of the predicted water consumption for sanitary use within the building. **The following sanitary fittings must be used throughout:** **Showers of less than 9 Litres/min flowrate;** **Flow regulated taps;** **WCs with 6 Litre flush; and** **Urinals with IR control.** **This gives a predicted consumption of 4.25**	2

Credit	Criteria and Assessment	Credits Awarded
	m^3/person/year	
Wat 0-2	1 CREDIT where a water meter with a pulsed output is installed on all mains supplies to the building. **This will be a requirement of the Rybka services specification.**	1
Wat 0-3	1 CREDIT where a leak detection system is specified or installed that is capable of identifying major leaks either inside or outside the building and covering all mains water supplies to the building **No leak detection specified at present.**	0
Wat 0-4	1 CREDIT where a proximity detection shut off is provided to the water supply to all urinals and WC's. **No proximity detection specified at present.**	0

5.6 Materials Credits

Table 9

Credit	Criteria and Assessment	Credits Awarded
Mat 0-1	1 CREDIT where asbestos is excluded from any new works; or for existing buildings where an asbestos survey has been carried out and all asbestos either removed or contained and identified with a H & S plan. **Asbestos is excluded from all services works. The design team should confirm this is the case for the other disciplines. Some lift manufacturers still use asbestos in the braking systems, and this must be excluded from the works.**	1
Mat 0-2	1 CREDIT where a central, dedicated storage space is provided for materials that can be recycled. The size of the space allocated for this must be at least 2m2 per 1000m2 of net floor area, or at least 10m2 for buildings with floor area over 5,000m2. **At least 10m^2 of the waste storage area must be given over to recyclable waste storage to achieve this credit.**	1
Mat 1-1	1 CREDIT where at least 50% of the new building's total façade comprises re-used façade and at least 80% by mass of the reused façade comprises insitu re-used material.	0

Credit	Criteria and Assessment	Credits Awarded
	As a new build, none of the façade is reused.	
Mat 1-2	1 CREDIT where the design allows the reuse of at least 80% of the existing major structure by gross building volume. In the case of a project that is part refurbishment and part new build, the reused structure must comprise at least 50% of the total final structure by building volume. **As a new build, none of the building structure is reused.**	0
Mat 1-3	Up to 4 credits are available where major building elements have a relatively low environmental impact as a result of their specification. **At this stage the construction elements are unknown therefore this credit cannot be awarded.** **Generally lightweight steel framed structures score highly, and high volumes of in-situ concrete score lower.**	0
Mat 1-6	1 CREDIT where significant use of crushed aggregate, crushed masonry or alternative aggregates manufactured from recycled materials are specified to deliver positive aspects of the design such as the building structure, ground slabs, roads, etc. **Credit could be awarded following confirmation of the above.**	0
Mat 1-7	Up to 2 CREDITS are available where timber and composite timber products used in structural and non-structural elements is from well managed sources OR utilises reused or recycled timber. **Credits could be awarded following confirmation of the above.**	0
Mat 1-8	1 CREDIT where carpets and other floor finishes in tenant areas of speculative buildings are only installed in a limited show area or where the future occupant has specified them. **The carpets should be installed as above.**	1

5.7 Pollution Credits

Table 10

Credit	Criteria and Assessment	Credits Awarded

Credit	Criteria and Assessment	Credits Awarded
Pol 0-2	1 CREDIT where systems containing refrigerants are contained in a moderately air tight enclosure and where a refrigerant leak detection system is specified/installed covering high-risk parts of the plant (evaporator or condenser coils can be omitted from this) or where no refrigerants are specified for the development. **This will be a requirement of the Rybka services specification.**	1
Pol 0-3	1 CREDIT where either provision of automatic refrigerant pump down is made to the heat exchanger (or dedicated storage tanks) with isolation valves, or where there are no refrigerants specified for the development. **This facility is not planned. Manual pump down would be available following an alert from the refrigerant detection system, however this would not achieve this credit.**	0
Pol 0-4	Up to four credits available, depending on the NOx emission rates of the boiler plant: • 1 credit where emissions are ≤140 mg/kWh delivered heating energy; • 2 credits where emissions are ≤ 89 mg/kWh delivered heating energy; • 3 credits where emissions are ≤ 59 mg/kWh delivered heating energy; • 4 credits where emissions are ≤ 39 mg/kWh delivered heating energy. **An assumptions has been made that boilers can be specified with NO_x emission below 89mg/kWh to achieve the 2 credits given. This will be reviewed when the boilers are selected.**	2
Pol 0-5	1 CREDIT is awarded where rainwater holding facilities and/or sustainable drainage techniques are used to provide attenuation of water runoff by 50% at peak times to either natural watercourses and/ or municipal drainage systems. **Not specified at present.**	0
Pol 0-6	1 CREDIT where on site treatment such as oil interceptors/filtration are present.	1

Credit	Criteria and Assessment	Credits Awarded
	An oil interceptor to the parking areas must form part of the underground drainage scheme.	
Pol 0-7	1 CREDIT where all refrigerant types in use have a global warming depletion potential (GWP) of below 5 or where there are no refrigerants present. **Credit withheld until refrigerant type confirmed.**	0
Pol 0-8	1 CREDIT where at least 10% of either the heat demand or the electricity consumption in the building is supplied from local renewable energy sources. **None specified at present.**	0
Pol 0-9	1 CREDIT where the external lighting design is compliant with the guidance in the Institution of Lighting Engineers (ILE) Guidance notes for the reduction of light pollution, 2000. **Credit withheld. This credit could be given if these requirements form part of the lighting specification.**	0
Pol 1-1	1 credit is awarded where the specification of thermal insulants avoids the use of ozone depleting substances and substances with a GWP of 5 or more in either manufacture or composition. **Credit withheld until confirmation of insulation type.**	0

5.8 Land Use & Ecology Credits

Table 11

Credit	Criteria and Assessment	Credits Awarded
Lan 1-1	1 CREDIT where site has been previously built on or used for industrial purposes within the last 50 years. **Land was previously built on. Confirmation required.**	1
Lan 1-2	1 CREDIT where land prior to development is defined as contaminated and where adequate remedial steps have been taken to decontaminate the site prior to construction. **No evidence that the land was previously contaminated.**	0
Eco 1-1	1 CREDIT where the development site is defined as land of low ecological value (refer to Assessment Manual for the	1

Credit	Criteria and Assessment	Credits Awarded
	current checklist) or where specialist ecological advice has been provided and the ecological consultant has defined the land as 'land of little or no ecological value' within an ecological assessment report. **Land is thought to be of low ecological value. Confirmation is required.**	
Eco 1-2	Up to 5 credits are awarded where the ecological value of a development site is either not substantially harmed or is enhanced beyond its previously existing state. **Two credits can be awarded based on there being no change in the ecological value of the site.**	2
Eco 1-3	1 CREDIT where the design team or client has sought, and acted on, advice from the Association of Wildlife Trusts (AWTC), a full member of the Institute of Environmental Management and Assessment (IEMA) or a full member of the institute of Ecology and Environmental Management (IEEM) in terms of enhancing the ecological value of the site. **No evidence of the appointment of an ecologist at present.**	0
Eco 1-4	1 CREDIT where the contract specification ensures that all trees over 100mm trunk diameter, hedges, ponds, streams etc. are maintained and adequately protected from damage during clearing and construction works. **Credit is awarded by default base on there being no ecological features in need of protecting. Confirmation is required.**	1
Eco 1-5	1 CREDIT where steps have been taken to prevent adverse impacts on biodiversity. **Requires the appointment of an ecologist.**	0

6 RESULTS

6.1 Numerical Data

BREEAM Rating: 0	Very Good

Core & Design & Procurement Credit Allocation Table

Overall Credit Allocation	Env Weighting	Available	Achieved	Percentage section credits achieved	Overall Weighted Percentage
Management	15%	10	6	60.00%	9.00%
Health & Wellbeing	15%	15	11	73.33%	11.00%
Energy		17	14	82.35%	
Transport		14	11	78.57%	
Energy & Transport	25%	31	25	80.65%	20.16%
Water	5%	6	3	50.00%	2.50%
Materials	10%	12	3	25.00%	2.50%
Land Use & Ecology	15%	11	5	45.45%	6.82%
Pollution	15%	12	4	33.33%	5.00%
				Totals	56.98%

BREEAM Rating	% Benchmark
Unclassified	<25
Pass	=25 - <40
Good	=40 - <55
Very Good	=55 - <70
Excellent	=70

EPI Score: 0	9

Core Credit Allocation Table

Overall Credit Allocation	Env Weighting	Available	Achieved	Percentage section credits achieved	Overall Weighted Percentage
Management	15%	No Core credits in this section			15.00%
Health & Wellbeing	15%	13	11	84.62%	12.69%
Energy		7	6	85.71%	
Transport		14	11	78.57%	
Energy & Transport	25%	21	17	80.95%	20.24%
Water	5%	6	3	50.00%	2.50%
Materials	10%	2	2	100.00%	10.00%
Land Use & Ecology	15%	No Core credits in this section			15.00%
Pollution	15%	11	4	36.36%	5.45%
				Total	80.88%

EPI Score	% Benchmark
1	=30 - <45
2	=45 - <50
3	=50 - <55
4	=55 - <60
5	=60 - <65
6	=65 - <70
7	=70 - <75
8	=75 - <80
9	=80 - <85
10	=85