

Network Rail Asset Management Policy

Operational Property

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1. Introduction

The purpose of this document is to state the Asset Management Policy for Network Rail's Operational Property assets and to define the strategy and justification for its application.

The portfolio represents one of the most complex in the United Kingdom, not simply in terms of size, functionality and constructional complexity, but also in terms of the operational and commercial environment. The nature of the assets is diverse and their management requires an approach that is sensitive to that diversity. Some assets, such as mechanical and electrical (M&E) equipment, are such that condition degradation leads to a point of complete operational failure – others, such as platform surfaces and car parks are physically more robust and less sensitive to operational failure through degradation. Stations themselves vary immensely in age and patronage; all these features inform our approach to maintenance and renewal policy. The document provides an overview of the assets within the portfolio.

The aim of the policy is to optimally manage operational property assets and their associated performance, risks and expenditures to achieve Network Rail's mission: to operate a safe, reliable and efficient railway infrastructure.

Network Rail is committed to delivering for our customers and stakeholders across CP4, and beyond, and this policy supports this objective by ensuring that our Operational Property assets are operated safely, that we meet the targets for asset stewardship placed upon us by the Office of Rail Regulation and that all of this is achieved in a sustainable way.

This policy operates in conjunction with other assurance and corporate governance systems such as our financial authority processes, company standards and skills, capability and competence framework.

2. Overview of Asset Portfolio

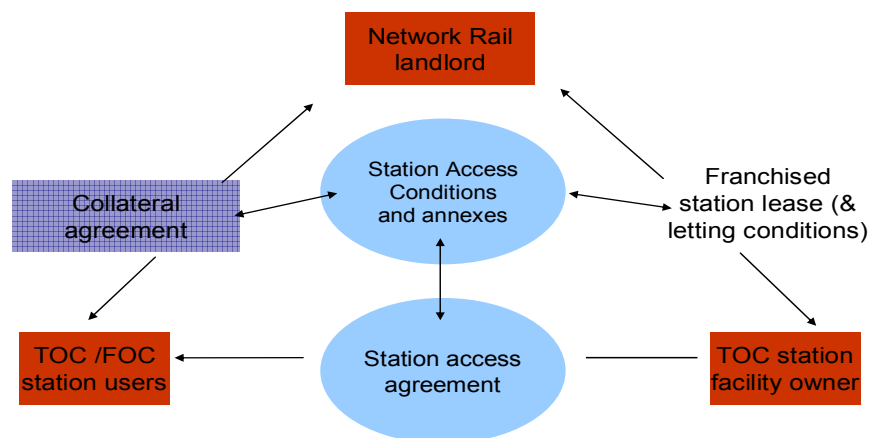
Operational property assets provide the built environment in which many of Network Rail operational activities are undertaken and consist of the following principal property types:

2.1 *Non-franchised stations (Managed Stations)*

The 18 non-franchised stations are large complex stations operated by Network Rail and largely situated in the heart of city centres. They represent some of the busiest and most complex stations on the rail network. The majority of these stations are also of significant historical, architectural and engineering importance, and many carrying listed status.

2.2 Franchised stations

There are currently 2,507 franchised stations and these are leased to a Station Facility Owner (SFO), which is usually one of the Train Operating Companies (TOC). The division of repair, maintenance and renewal activity is defined in the Station Access Conditions (SACs) and station leases; typically Network Rail retains obligations, as landlord, for the renewal of these assets and the SFO for repair and maintenance obligations. The SACs define the SFO's obligations in respect of repair and maintenance and remedies should either party fail to carry out their obligations and are regulated by the Office of Rail Regulation (ORR). The arrangement of the agreements is follows:



Multiple SAAs and collateral agreements – one for each user

These stations range from major stations of the same scale and complexity as the Managed Stations to small rural halts. The stations are divided into six categories from A to F.

Station Category	Number	Station Category Definitions
A – National hub stations	12	These are the most important stations, providing a gateway to the rail network from a significant population centre and also acting as a very important interchange location between different long distance services and/or local services
B – Regional hub stations	68	Regional hub stations are usually large stations providing a gateway to the network from a large population centre, usually served by more than one TOC with a mix of local, regional and long distance train services. There is likely to be significant interchange between services, some of which may terminate at these stations.
C – important feeder stations	247	Important feeder stations may be served by more than one TOC, and are usually served by some long distance services.
D – medium staffed stations	299	Medium staffed stations are usually served by regional and local services

E – small staffed stations	678	Small staffed stations will usually only have one member of staff in attendance and may be staffed for only part of the day.
F – small un-staffed stations	1203	Small un-staffed stations are defined as being permanently un-staffed.

2.3 Light Maintenance Depots (LMDs)

Light maintenance depots are leased to a Depot Facility Owner (DFO) to provide facilities for the servicing, maintenance and repair of rail vehicles. The division of repair, maintenance and renewal activity is defined in the Depot Access Conditions (DACs) and depot leases; typically Network Rail retains obligations, as landlord, for the renewal to these assets and the DFO has repair and maintenance obligations. Network Rail lease 72 depots to DFOs and retain renewals responsibility, a further 28 depots are leased to DFOs who have full repair, maintenance, renewal and insurance responsibility. The depots are divided into four categories:

Cat	Function	Number	Facilities
A	Multifunctional/heavy engineering	32	Large overhead crane facilities, jacks, full pitted roads, carriage washing, fuel points, (some with wheel lathe facilities)
B	Day-to-day component change	9	Small overhead cranes, jacks, some pitted roads, carriage washing
C	Covered cleaning/minor maintenance	7	Covered berthing, watering, carriage washing.
D	Open cleaning/berthing and watering	22	Open berthing, watering and some with carriage washing.
	Pending classification	2	

2.4 Lineside buildings (Critical and non-critical / manned and unmanned)

The estate includes approximately 7,000 Lineside buildings that serve a multitude of purposes but can be divided into two generic categories; critical and non-critical.

Critical lineside buildings are those that fulfil an operational function in relation to the railway, in that they house equipment or personnel essential to the operation of the railway. These assets include: integrated electrical control centres, relay rooms, signal boxes and substations.

Non-critical assets are those that indirectly support the operation of the railway but may be very important never the less. These include assets such as stores, P-way huts and cabins.

Network Rail has responsibility for the repair, maintenance and renewal of buildings and for building services. Responsibility for furnishing, facilities management, portable appliance testing (PAT)...etc rests with the local signalling or operations manager.

Lineside type	Number
Crossing Hut/Cabin	599
IECC	5
P-way cabin	1471
Relay room	1304
Signal Box	1033
Signal Centre	22
Substation	556
Switch Room	50
Track Paralleling Hut	295
Track Section Cabin	127
Other Unoccupied Lineside	1192
Other Occupied Lineside	145

2.5 Maintenance Delivery Units (MDUs) and National Delivery Service (NDS) depots

MDU buildings and NDS depot buildings provide the accommodation for our maintenance teams and people working at the depots. These include a diverse range of facilities in type, size and condition, according to the work carried out from each location. The provision of a suitable environment for our workforce is an important requirement for the continuing development of the in-house maintenance capability and the efficient delivery of essential maintenance and renewal supplies.

Network Rail has responsibility for the repair, maintenance and renewal of buildings and for building services of these assets from the renewals budget. Responsibility for furnishing, facilities management, PAT and other related activities is the responsibility of the local premises manager.

3. Asset Policy Statements

Network Rail revised the policy for Operational Property in October 2007 to be flexible enough to meet the differing requirements of each of the asset portfolio types and be sensitive to business priorities. The policy aimed to enable a non-deteriorating asset condition at portfolio level and features differential policy approaches by type of element and category.

Since October 2007 the level of understanding of the assets has increased considerably which enables more detail to be added to the policies, at portfolio and asset level. The overall policy principles remain the same as follows:

1. Retain safe performance

2. Sustain overall condition

whilst rationalising, or 'right sizing', asset provision (managing removal were applicable) and taking account of customer imperatives.

What are "customer imperatives"?

Our customers are the passenger and freight train operators, but we should also keep in mind that it is passengers and all rail users that ultimately benefit from what we do.

Our customers' needs are key to our business and we should be mindful of this when we make any decisions, in this case in respect of our Operational Property assets, which might affect them. The "customer imperative" is simply recognition of this fact and an understanding that we need to consult with, and take account of, our customers' views.

In respect of the principles:

1. Retain Safe Performance:

- Use asset knowledge to drive decision-making
- Direct interventions to high safety and performance issues
- Invest proactively in 'Golden Assets' to maintain reliability of the railway
- Continue to take account of customer imperative

2. Sustain overall condition:

- Target intervention on poor condition but otherwise safe assets, where possible
- Work with our customers and other stakeholders to carry out interventions that meet the wider industry aspirations

The new policy represents a difference in approach, rather than a wholesale change, and utilises the increasing volume and detail of asset data held within our asset management system to drive consistent and robust decision-making, rather than the empirical, condition lead, approach. The policy defines trigger levels for interventions, based on the safety and performance impact of the assets condition assessed through our defined inspection programme.

As part of this programme, our trained surveyors use their professional judgement to determine what effect the condition they find the asset in has on its operation and performance and are therefore able to 'predict' the potential failure of that, and other similar assets. The policy is, therefore, one of 'predict and prevent' rather than the more reactive condition-led approach.

Having defined when an intervention needs to be considered by an asset manager these are differentiated on the basis of the likelihood of the impact occurring and the percentage of the remaining life of that asset. This approach targets expenditure on those assets that receive highest usage by our customers and stakeholders and optimises intervention based on the asset's overall condition. Some examples of this differential approach are given for particular asset types. Given the diversity of assets within our portfolio it is not practical to address all asset types within this policy document, however, Asset Management Teams will be able to use the principles outlined in this guidance and apply them appropriately. Finally, the required outputs to be achieved, following an intervention, are defined.

The principles are encapsulated in the following policy statements:

Number	Policy Statement
Ops Prop-1	Each operational property asset type shall be identified as being managed under a specific policy. These policies shall be risk based taking account of the safety and performance impact and likelihood, as defined by asset category. The policies shall be sub-divided across different asset categories to enable a differential approach depending on use.
Ops Prop-2	Work with customers and other stakeholders, when considering the type and priority of repairs, maintenance and renewal, to achieve wider industry aspirations, within overall funding and programme constraints
Ops Prop-3	Examination of operational property assets shall be carried out at regular intervals, selected to achieve the optimum balance between cost and risk. The condition of each asset inspected shall be recorded in the Operational

	Property Asset System (OPAS).
Ops Prop-4	Examination results shall be used to drive maintenance and renewal plans for each asset, consistent with the policy selected for the asset, to remedy the defects found, if any, in order to maintain the safety, performance and functionality of the asset and its related elements or features.
Ops Prop-5	<p>The selection of the maintenance activities shall aim to maintain the overall condition taking into consideration:</p> <ul style="list-style-type: none"> • the specific feature's condition in the context of the overall condition of the asset e.g. a failed pane of glass in a canopy in otherwise good condition, or a failed pane in a canopy in generally poor condition. • short and long term historical changes in the asset condition • the overall policy for the asset • the requirements of the route on which the asset is located • the lifecycle cost of each viable alternative (including cost of possessions and track outages) • statutory requirements, including the rights of users and heritage requirements
Ops Prop-6	Each station and light maintenance depot shall be assessed and given a numerical rating of its condition.
Ops Prop-7	New, substantially altered or replacement stations that are not subject to Listed Building status shall adopt, where appropriate, a modular approach to the design, detail procurement and implementation of station components.
Ops Prop-8	Where possible, assets will be right sized which will include long term plans for the removal (or possible redeployment elsewhere in the portfolio, if appropriate) of redundant assets. Interventions will take account of projected customer and stakeholder demand, where supported by a business case.

Ops Prop-1 Specific asset policy

Three policies are defined, in outline they are:

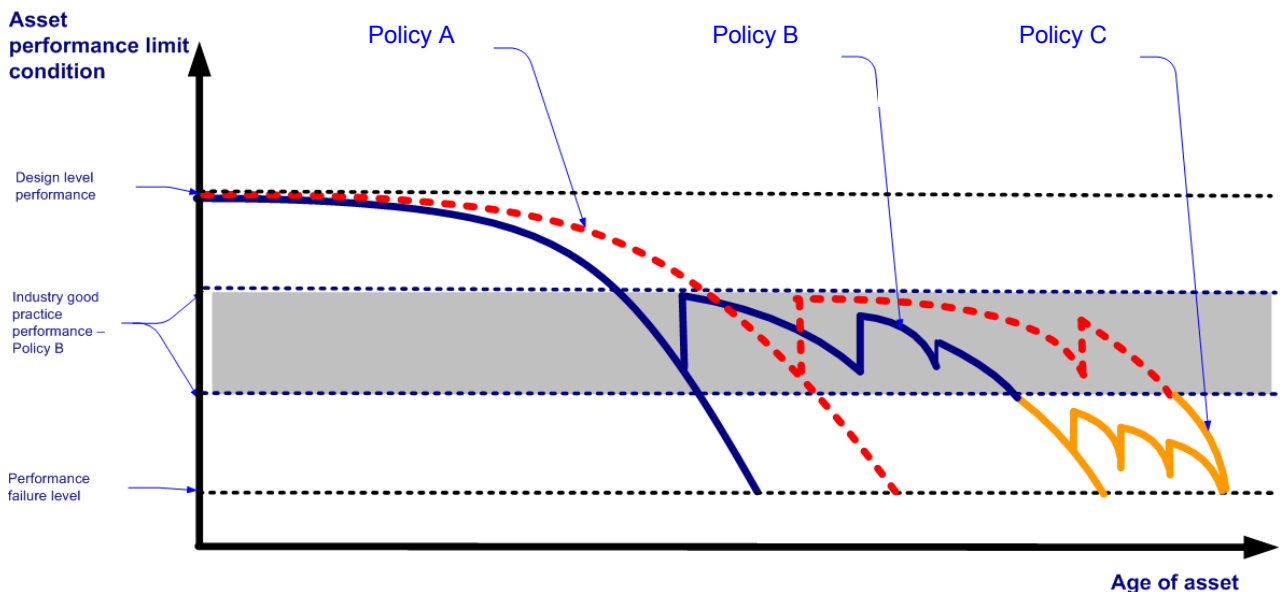
- Policy A – asset management encompassing the renewal of complete assets which delivers an increase in functionality and business value over and above that achieved by Policy B, below. This policy only applies to enhancement works.
- Policy B – asset management maintaining current levels of functionality and business value
- Policy C – asset management representing the minimum level of intervention to efficiently maintain health and safety and operability in the short-term.

The following tables set out a more detailed understanding of the policies:

Policy	Description
A	<p>The renewal of complete assets such as platforms, roofs and buildings which deliver an enhanced level of functionality and business value.</p> <p>Where Policy A applies to the renewal of a complete asset, e.g. a platform, roof or building, careful evaluation and planning of intervention will be undertaken in order to quantify the increased value of the renewal both in terms of (i) most economic lifetime plan for each asset and (ii) the baseline of functionality and business value delivered by Policy B.</p> <p>For example, if a platform is to be renewed in its entirety then a like-for-like renewal is not encouraged as the renewal should take into account future requirements such as the length of trains that serve, or are proposed to serve, that station, new platform design, layout and re-gauging.</p> <p>Policy A relates only to enhancements works and its application is defined in the individual enhancement scoping documents.</p>
B	<p>Policy B is decision-making in line with property industry 'best practice' for asset management. Interventions on an asset are timed to achieve optimum effect: maximising longevity and increasing operational performance of individual assets based on an assessment of their asset remaining life</p> <p>Policy B is designed to maintain the current level of asset functionality and performance and is not designed to address the longer term, more</p>

	strategic requirements, of the asset which would be addressed through Policy A.
C	<p>Policy C is asset stewardship decision-making designed to achieve a minimum acceptable level of maintenance and renewal but maintain the safe and efficient operation for users of that Operational Property asset.</p> <p>The objective is to undertake work on the basis of keeping expenditure at the lowest possible level, whilst maintaining current levels of functionality, compliance with statutory, contractual, H&S and duty of care responsibilities.</p>

From BRE research carried out for Network Rail the three policies may be depicted on a generic deterioration and intervention curve as follows:



The chart indicates that the intervention point will vary depending on the importance of the asset to the safety and performance of the railway.

Good practice within the asset management industry seeks to maintain the asset at an acceptable level of functional performance or condition – this is indicated as the tinted middle section on the chart above. This process requires sound and timely knowledge of the condition of the assets through a systemised programme of survey activity and an advance view of interventions will be required based on this knowledge. The point of intervention will vary across assets depending on their material, form, age and type and the nature of the intervention will be based on the potential impact the failure of an asset could have on the safety and performance of the railway:

- the failure of station assets can disrupt train services, resulting in passenger delays and inconvenience. It could also compromise the safety of passengers and railway staff;
- the failure of depot assets can cause operational delays and service disruptive to passengers by impacting on train movements, depot staff work patterns can be disrupted resulting in inconvenience and possibly compromising safety;.
- failure of lineside buildings can cause staff inconvenience which in extreme cases could give rise to industrial relations issues and operational problems resulting from failure of assets such as roofs which can impact on critical equipment; and
- increased time spent managing the potential risk of enforcement action and prosecution from legislative bodies, or placing our customers “at risk” where works arising from cyclical inspections remain undone.

Ops Prop-2 Customer and stakeholder imperatives

In determining the sequencing and nature of any proposed intervention the local Asset Management Team will consult with our customers and other stakeholders at the earliest possible opportunity to ensure that the potential to integrate these works (offering improvements in value for money or minimising disruption to our customers) are not lost. Our customers and stakeholders for these purposes include:

- train and depot operators and other funding bodies through the Integrated Stations Planning (ISP) programme and the network of Local Delivery Groups (LDG);
- our colleagues involved in the development of Route Utilisation Strategies; and
- other project teams involved in enhancement proposals.

The extent and timing of this consultation must still comply with Network Rail’s overarching governance process and take account of the overall funding available and other programme constraints, including possession issues and resources. Please see page 8 of this document for further information on the “customer imperative”.

Ops Prop-3 Examination

The examination of stations, LMDs and critical lineside buildings will be carried out at regular intervals and may take any of the following forms:

- cyclical examinations annually and 5 yearly;
- additional examinations of assets designated as operationally sensitive;
- statutory inspections; and
- any additional examinations, based on the results of the above, where we consider a more frequent examination is required in order to provide a greater level of assurance in discharging our statutory obligations. This information will

support a reactive intervention, if required, before any planned works or the next examination.

The condition of each asset inspected shall be recorded in the Operational Property Asset System (OPAS). For non-critical lineside buildings and MDU's Planned Preventative Maintenance (PPM) will be carried out to maintain the asset condition and inform any renewal requirements. An integral part of this PPM activity will be the provision of written reports to Asset Management Teams to enable further work and/or inspections to be carried out, if required. This system of PPM reporting will drive the inspection and renewal programme. The examination regime is summarised as follows:

Type	Block	Annual visual	5 yearly detail
Stations and LMDs	Train sheds	✓	✓
	Footbridges	✓	✓
	Canopies	✓	✓
	Platforms	✓	✓
	Others (lighting towers)	Defined by Asset Manager	✓
Lineside and MDU's	Non critical	PPM	Defined by Asset Manager
	Critical	PPM	✓

The Operational Property Asset System (OPAS) is the repository that holds information on all Operational Property assets. The system is a web-based product, provided by Atrium Property, which is used by other organisations, e.g. local authorities, for the management of their property assets.

A key feature of this system is the ability to upload data from inspections into the OPAS system via handheld data capture devices. The Operational Property Help Desk (OPHD), which manages our fault reporting and resolution process, also uses the same system, so that a holistic view of the asset is available to our Asset Management Teams.

Additionally, OPAS is able to provide a 'real-time' indication of our performance in respect of two key asset stewardship indicators, the Station Stewardship Measure (M17) and the Light Maintenance Depot Stewardship Measure (M19), which we are required to report on by the ORR.

Access is also available, specifically for our customers, to the fault-reporting functionality within OPAS. Through, this web-based portal, our customers are able to view and track the resolution any faults reported through our OPHD.

Ops Prop-4 Examination used to drive renewal

Examinations shall provide the following information on an asset at elemental level:

- safety impact;
- performance impact;
- fabric/structure and M&E;
- likelihood of the impact occurring;
- Asset Remaining Life (ARL);
- volume information; and
- defect information and details of any work needed to remedy.

The safety and performance information determines the risk the current asset condition has on the operation of the asset and railway, and will define when works are to be carried out.

The requirements and scope of inspections is specified in the 'Contract Requirements – Technical' and related documents and is part of the suite of documentation which accompanies the examination contract. To address any potential inconsistency across the network in terms of the conduct, scope and interpretation of examination activities Asset Management Teams are required to review inspections across different routes. The examination contract specifies competence levels for surveying staff.

The Asset Remaining Life is a measure of the sustainability of an asset and is used as the basis of the definition of the work that is to be carried out. Other information available to Asset Management Teams will be used to further inform the case for intervention.

Ops Prop-5 Maintenance activities

Maintenance activity will be aimed at maintaining, rather than improving, overall asset condition and shall comprise the following:

- Planned Preventative Maintenance (PPM);
- reactive maintenance arising from faults reported to the OPHD;
- minor emerging works as a result of faults reported to the OPHD; and
- minor planned works to maintain existing condition.

Within the franchised estate (franchised stations and LMDs) the responsibility for repair usually rests with the facility owner – although reference to the relevant Access Agreements will confirm this.

Ops Prop-6 Numerical condition rating

Two ratings are defined to measure the following:

- Safe performance, and
- Sustainable condition

Notwithstanding any customer imperative, when interventions are required will be defined by the safe performance measure and what the intervention is, will be defined by the sustainability measure.

Safe performance is measure by combining the safety and performance impact scores from examinations. The rating is based on a 5+5 matrix (see appendix A) which increases in severity on a square basis. To combine effect of the impacts the scores must be added on a logarithmic scale as follows:

$$\text{LOG}_5(5^{\text{safety impact score}} + 5^{\text{performance impact score}})$$

The formula will give the Asset Risk Score.

Sustainable condition is partly measured by the ORR agreed measures: Station Stewardship Measure (SSM) or M17 and Light Maintenance Depot Stewardship Measure (LMDSM) or M19 respectively - both are described in the Asset Reporting Manual. These measures are also based on the percentage asset remaining life (PARL). The approximate target average PARL for all stations and depots is 55%, which represent the trigger level for defining what interventions are to be carried out.

Ops Prop-7 Adoption of a modular approach to station elements

A modular approach to the design and construction of Operational Property assets will be adopted were appropriate, this should include:

- station platforms
- station buildings
- station footbridges (footbridges within the station lease area)

The aim is to deliver a building product that:

- are less costly than a “traditional” build;
- are less disruptive to our customers and other key stakeholders;
- has lower maintenance liabilities;
- has higher levels of energy efficiency;
- has the widest applicable design characteristics;

- has the highest level of “buy in” from funders and stakeholders; and
- wholly embraces Network Rail’s “brand” aspirations.

Ops Prop-8 Right sizing

The railway consists of many redundant and out of use assets, these are often maintained but no longer are appropriate to the railway of the 21st century and the customers it serves. When considering interventions, options for removal or redeployment of these assets, should be considered. These are likely to be long-term strategies, particularly where listed or large assets are involved.

4 Policy Strategy

4.1 Process

The policy strategy gives guidance on the following:

- when an intervention is required;
- the extent of an intervention; and
- the defined outputs of the intervention.

The core of our policy is to provide a specific trigger for when an intervention is required. This trigger is based on the Asset Risk Score; this is dealt with in further detail under Policy 6. When this Asset Risk Score reaches the defined level this triggers the requirements for an intervention in order to maintain the key operational considerations of safety and functionality. This trigger level is defined as that which would cause a RIDDOR or partially close a station (see appendix A) for larger stations. The policy defines this as an unacceptable balance between risk and expenditure and requires intervention. Understandably, for smaller stations, the risk trigger is set comparatively higher and the likelihood is lower. The levels have been assessed as providing a sustainable SSM at current expenditure levels.

Guidance on the extent of intervention is based upon the percentage remaining life of an asset. For example, a pot hole in platform with an otherwise adequate remaining life attracts a different response to a pot hole in a platform with very limited life expectancy. The extent of interventions is defined against subsets of policy B and C; specifically B1, B2, C1 and C2. The trigger level for defining ‘adequate’ remaining life is based on SSM (for stations). The CP4, SSM entry levels are as follows;

Station Category	Average SSM
A	2.33
B	2.42
C	2.49
D	2.53
E	2.54
F	2.54
Average	2.48

The average SSM score of 2.48 translates, in policy terms, to a percentage asset remaining life of 55%. This is a defined trigger level with the policy. It is recognised this is not an absolute and the local Asset Management Team should be able to employ their own professional judgement in deciding the nature and timing of any intervention. The calculation of the SSM score is defined in the relevant Asset Reporting Manual.

The policy is designed to reflect the different station categories with our portfolio and differentiates between the nature and extent of the intervention accordingly. This approach recognises the likelihood of an impact occurring at a lower category stations and also the relative importance of those station to the operation of the network.

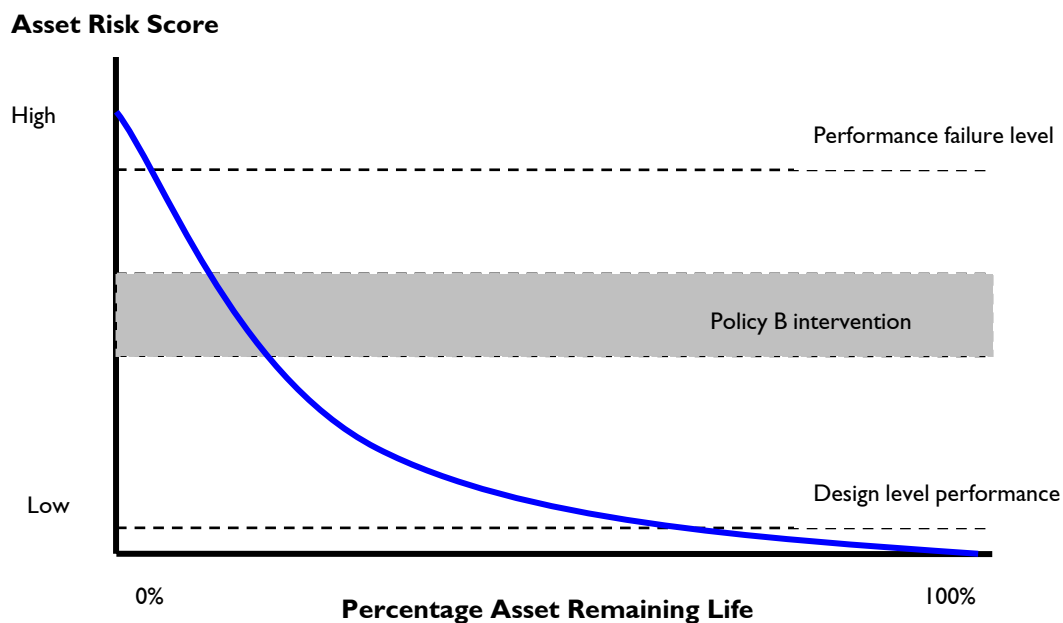
The output of the intervention will be an improvement in the percentage asset remaining life of the asset to the level defined in the policy strategy. The output should also ensure that a renewal generates an improvement in the SSM for that station, whilst maintenance activity simply maintains the current position (see explanation later).

The intervention plan is developed by Asset Management Teams and is actually driven by professional judgment of the risks associated with managing assets in and from examination and inspections data. These are reviewed alongside other information on the asset together with known related programmes of work to define specific scope and timescales.

The risk-based emphasis to our policy is an evolution on our previous, past condition lead policy. Intervention is targeted at the highest risk assets rather than a broad, cross asset policy. The likelihood is modelled by the station category which is related to both passenger use and the importance of the station to the network: lower category stations, with lower level of passengers generate higher risk trigger points as defined within the policy.

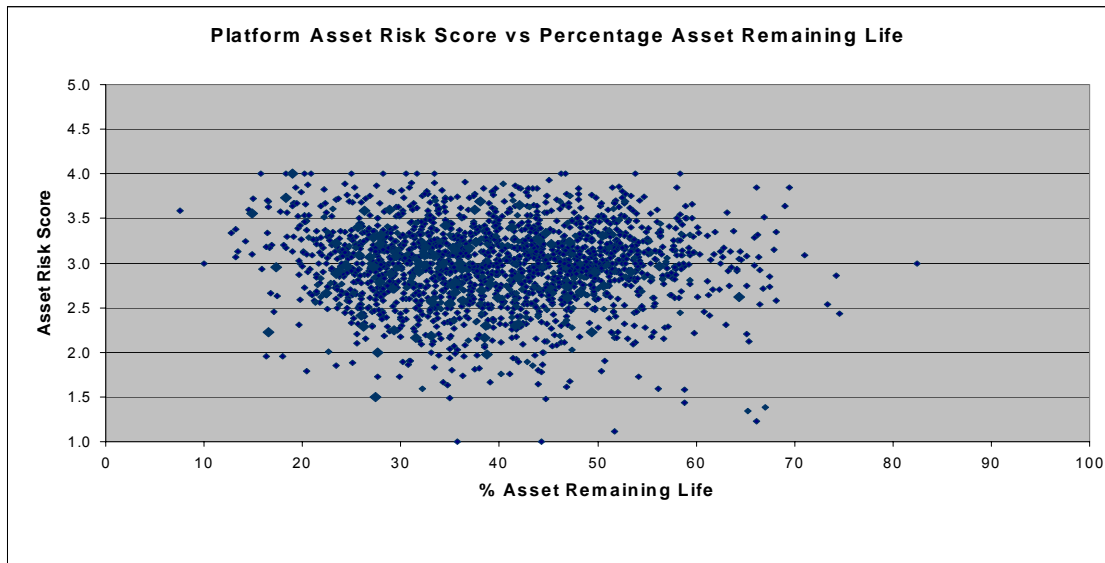
4.2 Use of asset data to develop guidelines

The 'standard' asset deterioration curve plots 'condition' against asset age (see BRE plot earlier). The curve may also be represented as risk against percentage asset remaining life, where risk is a measure of condition and percentage asset remaining life of age. The plot is an inverse to the standard curve, as follows:

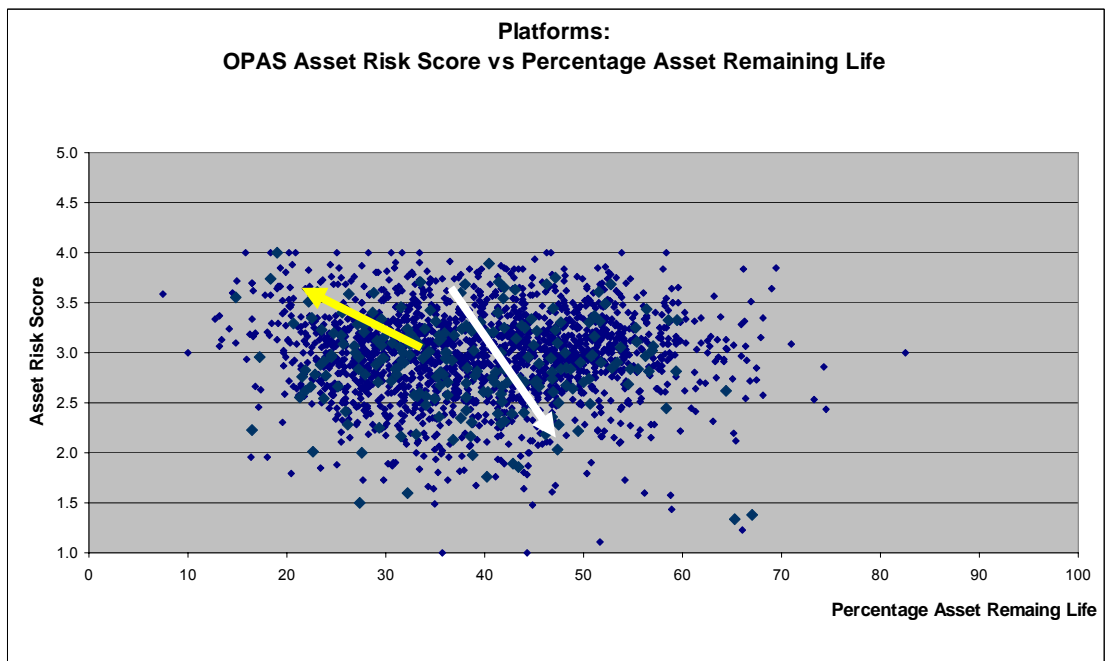


The Y axis represents the combination of safety and performance as Policy 6. Typically, as the remaining life reduces, so the risk will increase.

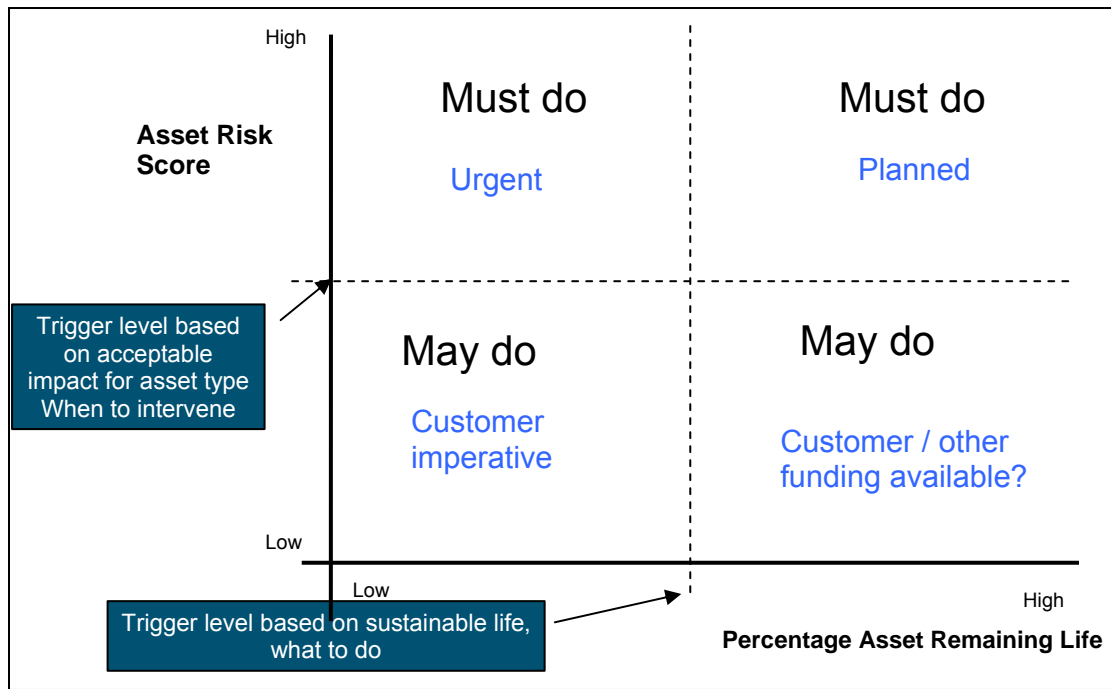
The above deterioration curve relates to a single asset of a single type, e.g. a copier. When considering assets comprising multiple sub assets there are multiple curves of different gradients. A snapshot of condition produces a point on each curve, for each asset, as the example below for platforms. Differential policies are, therefore, applied to different assets depending on their type and risk presented.



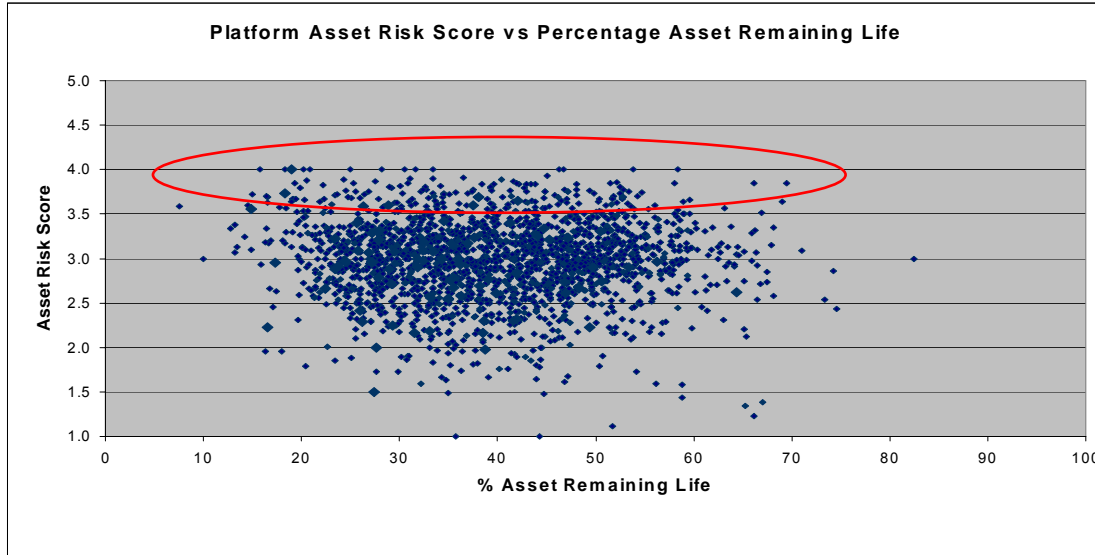
As with the generic deterioration curve, asset 'condition' will tend to migrate to the top left hand corner of the plot. Consistent with good practice, planned preventative or condition based maintenance, will maintain the centre of gravity of the 'scatter diagram'. Renewals will produce a step change in 'condition' producing both a reduction in risk and increase in percentage remaining life. These pressures are depicted below; the arrow on the right represents the deterioration trend and the left arrow the effect of renewal:



The scatter diagram can also be divided into quadrants, for which intervention within each quadrant are defined:



The policy defines the level of acceptable risk, and prioritises the high risk assets, those circled on the plot below.



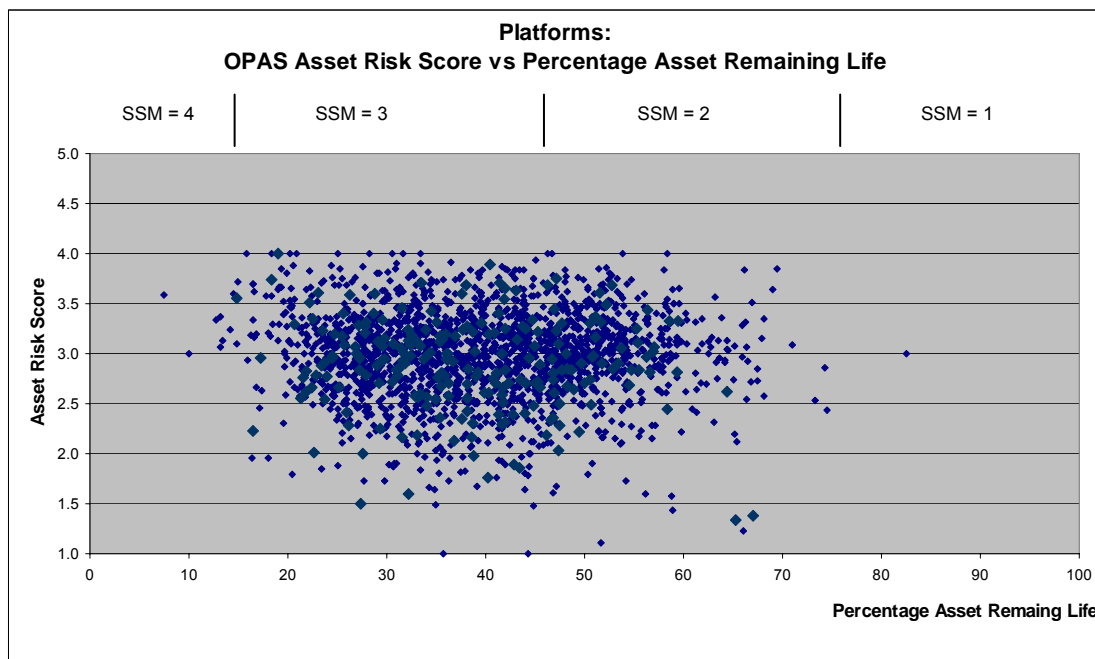
The risk score determines when intervention is required to maintain the safe and reliable of the railway. The asset remaining life determines the extent of intervention to achieve a minimum cost and sustainable intervention.

The sustainability of the policy will be measured by a 'basket' of indicators which includes the SSM and LMDSM; both regulatory outputs described in the Asset Reporting Manual. These

measures are also based on the percentage asset remaining life (PARL). The PARL represents the trigger level for defining what interventions are to be carried out, bring the assets to a sustainable minimum cost position. The SSM ranking is mapped to the diagram as below, understanding this relationship allows guidelines on when and at what level intervention should be targeted.

However, the trajectory of the policy in delivering outputs that are sustainable will be monitored and measured through a 'basket' of indicators. We have already talked about SSM and LMDSM being part of this but this will also include:

- the volume of faults reported through our Operational Property Help Desk not showing any increase;
- feedback from our customers and other stakeholders through the Local Delivery Group initiative; and
- feedback from National Passenger Survey (NPS)¹ and the MORI survey of our customers' satisfaction with the service provided by Network Rail.



¹ Passenger Focus question over 50,000 passengers a year to produce the National Passenger Survey (NPS) - a network-wide picture of passengers satisfaction with rail travel. Passenger opinions of train services are collected twice a year from a representative sample of journeys. Passengers' overall satisfaction and satisfaction with 29 specific aspects of service can, therefore, be compared over time.

4.2 Franchised and Managed Stations

The trigger levels for determining when action is required are based on the Asset Risk Score (Ops Prop 06). Below are suggested trigger levels for the different station categories. This is for guidance only as local Asset Manager Teams will make the final decision. However, where this decision diverges from the agreed policy position below justification would need to be provided through our defined investment process.

Station Category	A	B	C	D	E	F
601 Roofs & Roof Drainage	3	3	3	4	4	4
602 Platforms	3	3	3	4	4	4
603 Facilities & Accommodation	3	3	3	4	4	4
604 Footbridges	3	3	3	4	4	4
605 Lifts & Escalators	3	3	3	4	4	4
606 Electrical Circuits & Devices	3	3	3	4	4	4
607 External Decorations & Facades	3	3	3	4	4	4
608 Car Parks, Roads and External Works	3	3	3	4	4	4
609 General Drainage	3	3	3	4	4	4
610 Water Services	3	3	3	4	4	4
611 Heating Circuits	3	3	3	4	4	4
650 Security & Fire Alarm System Work	3	3	3	4	4	4
655 Other Work or Activity	3	3	3	4	4	4

The determination of the type of intervention required depends on the percentage asset remaining life. Assets with long residual remaining lives will require minimum whole life cost works to maintain the whole asset at the required level, whilst assets with short residual life will require more extensive interventions. The following is for guidance and the final decision is made by local Asset Management Teams.

Asset type Station Category	Percentage Asset Remaining Life < 55%					
	A	B	C	D	E	F
601 Roofs & Roof Drainage	B1	B1	B2	C1	C1	C1
602 Platforms	B1	B1	B2	C1	C1	C1
603 Facilities & Accommodation	C1	C1	C1	C1	C1	C1
604 Footbridges	B1	B1	B2	B2	B2	B2
605 Lifts & Escalators	B1	B1	B2	B2	B2	B2
606 Electrical Circuits & Devices	B1	B1	B2	B2	B2	B2
607 External Decorations & Facades	B2	B2	B2	C1	C1	C1
608 Car Parks, Roads and External Works	B2	B2	B2	C1	C1	C1
609 General Drainage	B2	B2	B2	C1	C1	C1
610 Water Services	B1	B1	B2	C1	C1	C1
611 Heating Circuits	B1	B1	B2	B2	B2	B2
650 Security & Fire Alarm System Work	B1	B1	B2	B2	B2	B2
655 Other Work or Activity	B1	B1	B2	B2	B2	B2

Asset type	Percentage Asset Remaining Life > 55%					
	A	B	C	D	E	F
601 Roofs & Roof Drainage	B2	B2	C1	C2	C2	C2
602 Platforms	B2	B2	C1	C2	C2	C2
603 Facilities & Accommodation	C1	C1	C1	C2	C2	C2
604 Footbridges	B2	B2	C1	C2	C2	C2
605 Lifts & Escalators	B2	B2	C1	C1	C1	C1
606 Electrical Circuits & Devices	B2	B2	C1	C1	C1	C1
607 External Decorations & Facades	B2	B2	C1	C2	C2	C2
608 Car Parks, Roads and External Works	B2	B2	C1	C2	C2	C2
609 General Drainage	B2	B2	C1	C2	C2	C2
610 Water Services	B2	B2	C1	C2	C2	C2
611 Heating Circuits	B2	B2	C1	C1	C1	C1
650 Security & Fire Alarm System Work	B2	B2	C1	C1	C1	C1
655 Other Work or Activity	B2	B2	C1	C1	C1	C1

The aim of each intervention type is to maintain or increase the percentage asset remaining life to the following levels:

Policy	Renewal policy		Maintenance	
	B1	B2	C1	C2
601 Roofs & Roof Drainage	74	55	45	25
602 Platforms	74	55	45	25
603 Facilities & Accommodation	74	55	45	25
604 Footbridges	74	55	45	25
605 Lifts & Escalators	74	55	45	25
606 Electrical Circuits & Devices	74	55	45	25
607 External Decorations & Facades	74	55	45	25
608 Car Parks, Roads and External Works	74	55	45	25
609 General Drainage	74	55	45	25
610 Water Services	74	55	45	25
611 Heating Circuits	74	55	45	25
650 Security & Fire Alarm System Work	74	55	45	25
655 Other Work or Activity	74	55	45	25

The extent of each intervention is defined by the local Asset Management Teams using the following as guidance:

Policy Feature	Renewal policy		Maintenance	
	B1	B2	C1	C2
Roofs & Roof Drainage	Remove and relay all. Add access system.	Remove and relay a proportion. Add access system	Large patch repair.	Minor local repairs.
Platform Surface	Full depth reconstruction	Plane and resurface	Large patch repair	Minor local repairs
Platform tactiles	Renew or add.	Renew or add	Repair, do not add.	Minor repair, do not add
Platform coper	Renewal	Refurbish	Repair	Minor repair
Structural elements	Renewal	Refurbish	Repair	Minor repair/strengthen
Facilities & Accommodation	Full renewal	Major refurbishment	Repair	Minor repair
Footbridges	Renewal	Refurbish	Repair	Minor repair/strengthen
Lifts & Escalators	Renewal	Renewal	Repair	Repair
Lighting	Renewal	Refurbish	Repair	Minor repair
Electrical Circuits	Renewal	Renewal	Repair	Repair
Building services	Renewal	Renewal	Repair	Repair
Car Parks, Roads and External Works	Full depth reconstruction	Plane and resurface	Large patch repair	Minor local repairs
General Drainage	Remove and relay all	Remove and relay a proportion	Large patch repair	Minor local repairs

Renewal refers to replacement of the feature with new, whilst refurbishment refers to the making good of the whole of the existing feature, as far as possible.

4.3 Light Maintenance depots

The guidance trigger levels for when intervention should be considered at LMDs are the same as for stations. Specialist advice should be sought in respect of shore supplies, carriage washers, wheel lathes and other specialist facilities at depots.

4.4 *Lineside buildings and MDUs*

The local Asset Manager shall determine when intervention is required in respect of lineside building and MDUs. The high level policy application are as follows:

Lineside Building and MDU policy application											
Lineside	Type										
	Crossing hut/cabin	Fog Hut	Ground Frame	Handsignalman	IECC	P-way cabin	Relay room	Signal Box	Substation	Track Paralleling	Track Section
Roof & roof drainage	C	C	B	C	B	B	B	B	B	C	C
Electrical circuits	B	B	B	C	B	B	B	B	B	C	C
Car parks, roads	C	C	C	C	B	B	B	B	B	C	C
Facilities & accommodation	C	C	C	C	B	B	B	B	B	C	C

The rationale behind is to concentrate expenditure at those assets that are more critical to the running of the network given funding availability.

5. References

BRE - Asset deterioration profiling for key cost driving assets: Summary report: 7 September 2007, Client report number 239-091

Atrium Property – www.atriumproperty.co.uk

Network Rail Standards - [Standards Development - Home Page](#)

Appendix A: Corporate Risk Matrix as applied to Operational Property

IMPACT		OPAS IMPACT SCORE					
		0	1	2	3	4	5
Safety	Affect	None	Single Minor Injury	Multiple minor injuries	RIDDOR reportable injury (3 days lost time)	Single serious injury.	Single fatality or multiple serious injuries.
	Corporate risk impact	0	1	1	1	2	3
Performance	Affect	No affect	Restriction on movement in staff area	Restriction on movement in public area	Partial closure of station	Speed restriction	Line or station closure
	Corporate risk impact	0	1	1	1	1	1
Fabric	Affect	No affect	Minor isolated defects allowing further deterioration of the element.	Major isolated defects or general defects of the whole structure.	Minor collapse or failure of elements.	Major failure of elements or partial failure of whole structure.	Collapse of whole structure
	Corporate risk impact	0	1	2	3	4	5
Customers and Stakeholders	Affect	None	Adverse local media report.	Adverse local media reporting over a period. Localised public and/or stakeholder concern.	Significant local media campaign. National media interest creating public concern. Negative national stakeholder statements.	Extensive prolonged adverse reactions from media, public and/or key stakeholders.	Extensive widespread negative reporting or public disputes with key customers or stakeholders. Escalation inevitable and impossible to contain in medium term.
	Corporate risk impact	0	1	2	3	4	5

LIKELIHOOD			OPAS RISK SCORE					
Frequency	Description (annual probability)	Score						
5 per year or more	Recurring	5	0	6	7	8	9	10
1 per year to less than 5 per year	Expected	4	0	5	6	7	8	9
Less than 1 per year to 1 in 5 years	Possible ≥20%	3	0	4	5	6	7	8
less than 1 in 5 years to 1 in 25 years	Unlikely <20%	2	0	3	4	5	6	7
less than 1 in 25 years	Remote <4%	1	0	2	3	4	5	6