2. Asset Information (8 Questions)

Information Strategy and Standards

Question 2.1	How are your asset information strategy and asset information standards implemented to ensure asset data and information is sufficiently robust for planning and decision-making?
Guidance	Please describe your asset information strategy and standards and provide details on how they ensure that data and information is high quality. Please describe how you ensure adequate data coverage and that data is collected sufficiently regularly to give a robust, up-to-date understanding of asset health and inform investment planning. Please show how you manage asset data in your organisation and please include where there are different approaches for different asset types. Please explain if, how and why you class some assets as critical and explain how you approach the difference in data quality required for critical and non-critical assets.
Suggested evidence	Example of an asset information standard
Maturity scale	
Unaware	The organisation is unable to demonstrate that it identifies where information is not of sufficient quality for effective decision-making.
Aware	The organisation has identified the need to have a systematic approach to identify the necessary asset information and establish management processes for asset information, and there is evidence of intent to progress them.
Developing	The organisation understands their asset health information requirements for planning and decision-making, and has developed some asset information standards and asset information quality assurance processes, but they are not comprehensive or not applied consistently across asset types.
Competent	The organisation has asset information standards to identify all information required for planning and decision-making, along with sources and quality assurance requirements. The organisation uses an asset management information system to manage its asset information. The organisation has an asset information strategy which sets out how and when information is to be collected, analysed and evaluated and information required to support key decisions within asset management processes.
Optimising	The asset management strategy considers risks to information requirements and targets gaps in asset information, which are material to planning and decision-making, with systematic plans to improve asset information.

Maturity Score	Unaware	Aware	Developing	Competent	Optimising	Leading
Current Maturity						
Maturity at the end of AMP7						
Maturity at the end of AMP8						

Please evidence your current maturity (500 words)

What are your plans in AMP7 & AMP8 (if applicable)? (500 words)
If you are demonstrating leading practice, please provide details of the practice and its benefits? (300 words)
Quantitative indicator
What percentage of your asset information (for each asset system/type) is quality assured? Please complete table 2.1 in the attached spreadsheet.
Please signpost any documents you are appending to support your answers. Please provide the name, chapter/section number and page numbers relevant to this question.

Data Collection and Management

Question 2.2	How does the organisation collect and process sufficient asset health data for different asset types, to be able to make your decisions?
Guidance	Please describe how the organisation collects and analyses asset health data for different asset types. Please describe the methods and tools used to collect and analyse sufficient data. Please provide definitions of the asset types (including critical assets) that you use for monitoring and planning of asset health. Please describe how you decide which assets need inspections and the type of inspection. Please describe the standards used to guide the data collection and analysis. Please outline who manages the asset health data and describe how processes and information are updated and validated. Please describe if and how this process differs for critical and non-critical assets.
Suggested evidence	Example of asset information strategy The hierarchy of asset types
Maturity scale	
Unaware	The organisation is unable to demonstrate consistent and systematic collection and processing of asset health data.
Aware	The organisation has identified the importance of consistent and systematic approach to asset health data collection and processing to make decisions. There is evidence of intent to progress this.
Developing	The organisation has implemented (or will shortly implement) means of systematically and consistently collecting and processing asset health data for decision making.
Competent	The organisation can demonstrate it has a fully realised methodology for asset health data collection and processing across different asset types. This methodology takes account of the criticality of the asset types and that sufficient data is collected for robust decision making. The organisation has an asset information system that is the single source of truth.
Optimising	All asset types have a defined way of collecting and processing asset health data, which take account of the criticality of the asset types. There are processes in place

	to identify gaps in asset information and improvements in data collection and processing and systematic plans to continually improve the asset information.					
Maturity Score	**Unaware**	**Aware**	**Developing**	**Competent**	**Optimising**	**Leading**
Current Maturity						
Maturity at the end of AMP7						
Maturity at the end of AMP8						

Please evidence your current maturity (500 words)

What are your plans in AMP7 & AMP8 (if applicable)? (500 words)

If you are demonstrating leading practice, please provide details of the practice and its benefits (300 words)

Quantitative indicator
What percentage of assets have been surveyed by asset system/type (in the last 5 years)? Please complete table 2.2 in the attached spreadsheet.
Please signpost any documents you are appending to support your answers. Please provide the name, chapter/section number and page numbers relevant to this question.

Forecasting and Modelling Risk

Question 2.3	**How do you identify and quantify the risk of failure of assets including critical assets?**
Guidance	Please describe how your organisation identifies, quantifies and manages the risk of asset failure for critical and non-critical assets. Please describe how you identify critical assets for each asset type including consideration of SEMD regulations and other relevant legal requirements. Please describe how frequently you review the risk of failure.
Suggested evidence	An example of risk quantification for an asset. Definitions of critical assets for each asset type. Process/decision-tree for determining criticality of asset.
Maturity scale	
Unaware	The organisation has not recognised the need to identify and quantify the risk of failure of assets.
Aware	The organisation recognises the importance of identification and quantification of risk of failure of assets. There is evidence of intent to progress this.
Developing	There are definitions for critical assets for some asset classes and limited methods for quantifying asset failure. There is ad-hoc understanding of the consequences of

	failure for a small number of assets. Critical assets are identified and there is a plan to develop asset strategies and contingency plans for critical assets. There is an understanding of asset failure for critical assets within the organisation's systems.
Competent	There is consistent quantification of risk of failure for all assets, which informs decision-making. Critical assets are identified, and asset strategies and contingency plans exist for the critical assets.
Optimising	The identification of risk of asset failure includes consideration of external shocks and stresses. It considers the consequences for the organisation, customers, community and the environment and the consequences on external systems (such as transportation, energy and medical services). The risk of failure is regularly reviewed and updated to take account of future trends such as climate change.

Maturity Score	Unaware	Aware	Developing	Competent	Optimising	Leading
Current Maturity						
Maturity at the end of AMP7						
Maturity at the end of AMP8						

Please evidence your current maturity (500 words)

What are your plans in AMP7 & AMP8 (if applicable)? (500 words)

If you are demonstrating leading practice, please provide details of the practice and its benefits (300 words)

Quantitative indicator
For what percentage of assets (%) (by asset system/type) has the risk of failure been assessed and updated in the last review period? Please complete table 2.3 in the attached spreadsheet.
Please signpost any documents you are appending to support your answers. Please provide the name, chapter/section number and page numbers relevant to this question.

Question 2.4	How do you consider uncertainty in your understanding of the risk of failure of assets in the short, medium, and long term?
Guidance	Please include how you manage uncertainty in your understanding of risk of failure in the short, medium, and long term.
Suggested evidence	Risk identification and quantification processes, e.g. FMECA Scenario analysis and planning
Maturity scale	
Unaware	The organisation does not consider uncertainty in the understanding of the risk of asset failure.

Aware	The organisation is aware of the importance of considering uncertainty in the risk of asset failure and there are plans to consider uncertainty in decision-making and planning.
Developing	The organisation has developed an approach to consider uncertainty in the risk of asset failure. This approach has either been implemented or will shortly be implemented.
Competent	The organisation considers uncertainty in the risk of asset failure across all asset types. Uncertainty in asset failure is understood for the short and medium term and incorporated into decision-making and future planning.
Optimising	The organisation considers uncertainty in the risk of asset failure over the long-term and incorporates them into decision-making and planning. The organisation regularly refines the risk of asset failure to take account of the changing contexts.

Maturity Score	Unaware	Aware	Developing	Competent	Optimising	Leading
Current Maturity						
Maturity at the end of AMP7						
Maturity at the end of AMP8						

Please evidence your current maturity (500 words)

What are your plans in AMP7 & AMP8 (if applicable)? (500 words)

If you are demonstrating leading practice, please provide details of the practice and its benefits (300 words)

Quantitative indicator
None

Please signpost any documents you are appending to support your answers. Please provide the name, chapter/section number and page numbers relevant to this question.

Question 2.5	What methodologies do you use to assess and predict asset deterioration in the short, medium, and long term?
Guidance	Provide a summary of the methodologies you use to assess and predict asset deterioration for different asset types including whether they are influenced by the consequence of asset failure. Please describe how you ensure that these estimates are valid and allow for uncertainties. Please describe how the amount and quality of data required for understanding asset deterioration (including deterioration models) is determined.
Suggested evidence	Example data requirements/standards for asset deterioration modelling Example asset deterioration model audits
Maturity scale	
Unaware	The organisation does not assess or predict asset deterioration.

Aware	The organisation is aware of the importance of assessing and predicting asset deterioration and there are plans to predict asset deterioration.					
Developing	The organisation has developed methodologies to assess and predict asset deterioration. These are limited to simple scenarios for some asset types over the short and medium term, but there are plans to develop these further.					
Competent	The organisation has developed methodologies to assess and predict asset deterioration for a range of timescales for most asset types.					
Optimising	The organisation continuously reviews and improves their asset deterioration predictions based on changing contexts and up-to-date asset information. The impact of future trends such as climate change on asset deterioration is understood.					
Maturity Score	**Unaware**	**Aware**	**Developing**	**Competent**	**Optimising**	**Leading**
Current Maturity						
Maturity at the end of AMP7						
Maturity at the end of AMP8						

Please evidence your current maturity (500 words)

What are your plans in AMP7 & AMP8 (if applicable)? (500 words)

If you are demonstrating leading practice, please provide details of the practice and its benefits (300 words)

Quantitative indicator
What is the sample survey size (%) by asset type / system feeding into the deterioration models? What percentage of asset deterioration data is measured versus modelled by asset type/system? Please complete table 2.5 in the attached spreadsheet.
Please signpost any documents you are appending to support your answers. Please provide the name, chapter/section number and page numbers relevant to this question.

Question 2.6	How do you understand the consequences of asset failure on service for customers, society, and the environment?
Guidance	Please describe how you evaluate the consequences of asset failure for customers, society, and the environment. Please describe how you consider the cascading consequences of your assets failing on internal (e.g. water supply network) and external systems (e.g. transportation, power, telecoms, healthcare) and vice-versa. Please describe how your understanding of the consequences of asset failure informs your contingency planning and investment planning and how you understand the costs of failure to inform decision-making.
Suggested evidence	Example evaluation of consequence of asset failure on service for customers, society and the environment including systems-thinking.
Maturity scale	

Unaware	The consequences of asset failure on service are not understood.
Aware	The importance of understanding the consequences of asset failure is understood and there are plans to progress this.
Developing	There is understanding of the consequence of asset failure on service for customers for critical assets. There is an understanding of failure modes for assets. This considers the organisation's internal systems.
Competent	There is an understanding of failure on service for customers, society and the environment across all asset types. For critical assets, the consequences for customers, society and the environment are quantified and take account of cascading consequences across internal and external systems, for example by using FMECA. This feeds into decision-making, investment and contingency planning for critical assets.
Optimising	There is quantification of the consequences of asset failure on service for customers, society and the environment across all asset types, which takes account of the cascading consequences across internal and external systems. For critical assets, the organisation collaborates with other infrastructure providers to understand risks and interdependencies, which may affect service to their customers. This feeds into decision-making, investment and contingency planning.

Maturity Score	Unaware	Aware	Developing	Competent	Optimising	Leading
Current Maturity						
Maturity at the end of AMP7						
Maturity at the end of AMP8						

Please evidence your current maturity (500 words)

What are your plans in AMP7 & AMP8 (if applicable)? (500 words)

If you are demonstrating leading practice, please provide details of the practice and its benefits? (300 words)

Quantitative indicator

What percentage of assets by asset systems / types have been evaluated for their consequence to service for customers, society and the environment?
For what percentage of assets have interdependencies with external systems been considered (e.g. power failure, flooding of essential infrastructure, etc.)?
Please complete table 2.6 in the attached spreadsheet.

Please signpost any documents you are appending to support your answers. Please provide the name, chapter/section number and page numbers relevant to this question.

Question 2.7	How do your asset standards support you to maintain or improve asset health and operational resilience as well as prepare assets for the future?
Guidance	Please show how your asset standards are used to consistently manage asset health across your organisation and prepare assets for the future. Please describe how you maintain and continually improve your asset standards to reflect past performance and meet future needs. Please describe the criteria that trigger an update or a one-off derivation.
Suggested evidence	Example asset standard which contributes to asset health and resilience
Maturity scale	
Unaware	The organisation does not have asset standards in place.
Aware	The organisation has identified the importance of using asset standards to improve asset health and there is evidence of plans to develop asset standards.
Developing	The organisation has an incomplete set of asset standards, which are used to manage its assets. There are plans in place to develop a comprehensive set of asset standards.
Competent	The organisation can demonstrate it has an embedded consistent set of asset standards. The Asset standards have been designed to be consistent such that they could be externally assured and include guidance on asset health and operational resilience. It can be demonstrated that the use of standards aids the organisation in maintaining and future proofing assets.
Optimising	The asset standards are regularly reviewed and improved to consider changes in external factors (such a climate change). The asset standards are shown to support the organisation in preparing assets for the future ('future-proofing') and in maintaining and improving asset health and operational resilience.

Maturity Score	Unaware	Aware	Developing	Competent	Optimising	Leading
Current Maturity						
Maturity at the end of AMP7						
Maturity at the end of AMP8						

Please evidence your current maturity (500 words)

What are your plans in AMP7 & AMP8 (if applicable)? (500 words)

If you are demonstrating leading practice, please provide details of the practice and its benefits? (300 words)

Quantitative indicator

What percentage of asset systems / types have an asset standard that considers asset health and resilience?
On average, how frequently are your asset standards updated?
Please complete table 2.7 in the attached spreadsheet

Please signpost any documents you are appending to support your answers. Please provide the name, chapter/section number and page numbers relevant to this question.

Question 2.8	How does the organisation plan for operational response and recovery to asset failures?
Guidance	Please describe your contingency planning process for asset failure including how you identify which incidents to plan an operational response for, how frequently the plans are updated and simulations run. Please describe how your contingency planning links to your investment decision-making.
Suggested evidence	Example contingency plan
Maturity scale	
Unaware	The organisation does not plan for their operational response to asset failures.
Aware	The organisation is aware of the need to plan for their operational response to asset failures and there is intent to do this.
Developing	The organisation has contingency plans for the failure of their critical assets. They have not been tested recently and may be out-of-date.
Competent	The organisation has contingency plan for the failure of their critical assets. Simulations to test their contingency plans are held regularly and all contingency plans are up-to-date.
Optimising	The organisation engages with external stakeholder groups (e.g. Local Resilience Forums) to develop their contingency plans and they run multi-agency simulations. The contingency plans are stress-tested to take account of future shocks, stresses and black swans (e.g. increasing severity and duration of extreme weather, terrorist attacks, cyber-attacks, etc.). Lessons learnt reviews are held after test and real-life deployment of contingency plans to capture and implement lessons and inform investment decision-making.

Maturity Score	Unaware	Aware	Developing	Competent	Optimising	Leading
Current Maturity						
Maturity at the end of AMP7						
Maturity at the end of AMP8						

Please evidence your current maturity (500 words)

What are your plans in AMP7 & AMP8 (if applicable)? (500 words)

If you are demonstrating leading practice, please provide details of the practice and its benefits? (300 words)

Quantitative indicator

What percentage of critical assets are covered by a contingency plan?

How frequently are contingency plans updated?
How many simulations of contingency plans have been held in the past 3 years?
Please complete table 2.8 in the attached spreadsheet.

Please signpost any documents you are appending to support your answers. Please provide the name, chapter/section number and page numbers relevant to this question.