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Damaged & Weathered PFP Project Update

Background

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- Methodologies exist for PFP surveys and assessment. This work is not intended to develop another RBI method.
- Good PFP & Bad PFP relatively easy to identify. Judgement required between these two extremes, particularly if non-visible, i.e. PFP is damaged/weathered – what is acceptable?
- Identify factual data that informs the acceptability of anomalies of a particular type, size and location in relation to the protected item.
- Work supervised by the Aged and Damaged PFP Technical Subcommittee

Phase 1 – Identify Data Sources

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- 23 personal interviews to identify current member knowledge of quantifiable performance data for damaged & weathered PFP

- Very little data for aged and weathered PFP in real world setting
- Lots of publications on accelerated ageing testing
- Shell/HSE weathering project only main published source
- Limited data on damaged PFP. In the main, relates to cracks in PFP coatings only
- Only MMI JIP considers damage location (edge features)
- None of the data deals with ‘cliff edge’ events – rapid failure

Phase 2

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- Development of the key steps into a roadmap to guide a user through the decision making leading to assigning a **severity**.
  - Review data sources recommended in Phase 1
  - Populate with evidence where it exists
  - Make recommendations where no evidence exists
- This gap analysis will tell us what we don’t know, and where we need to focus evidence gathering.

Roadmap

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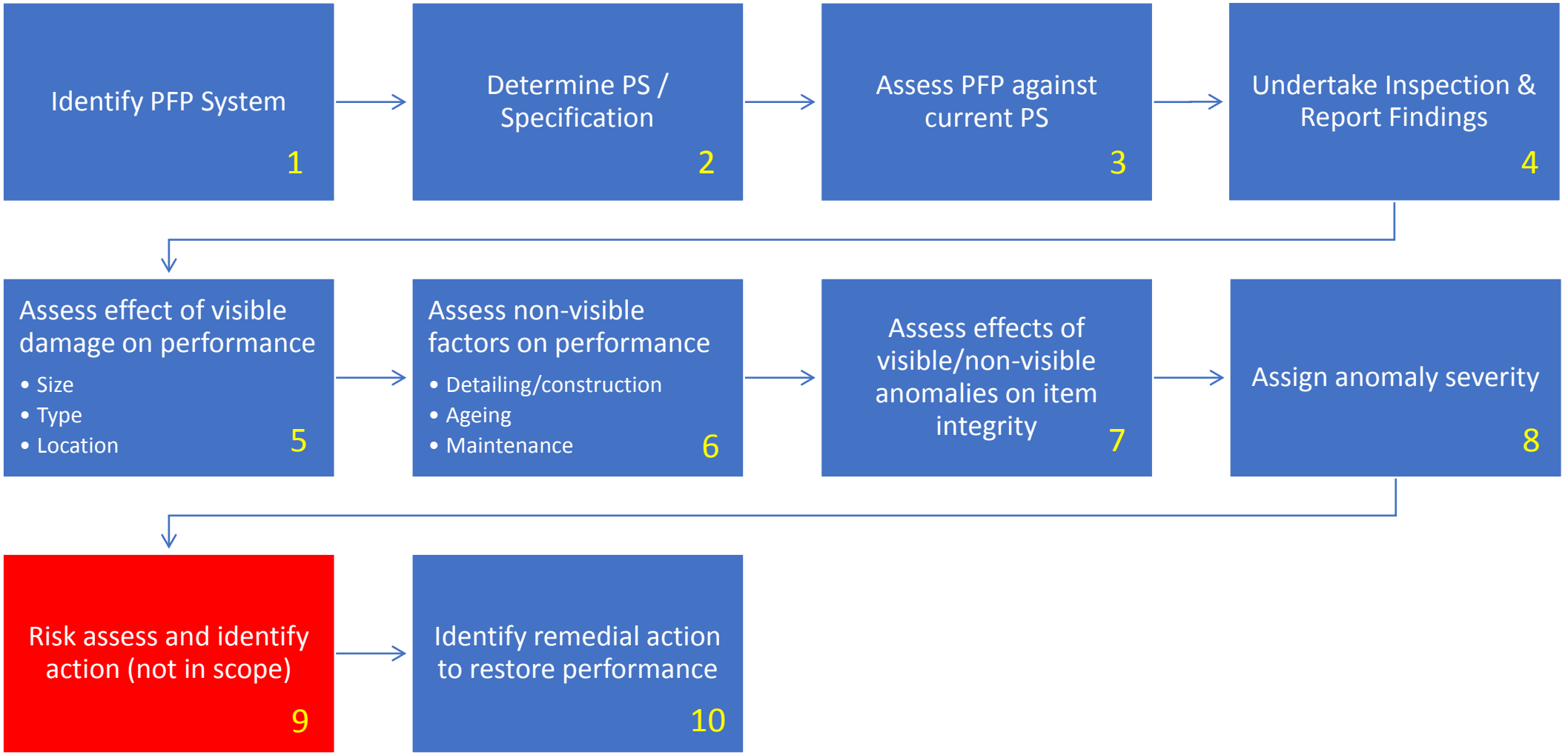

Summary

- Whilst there is data available, it is not extensive and doesn't provide an answer.
- Possible options:
  - Undertake testing of aged systems to gather additional data
  - Use numerical methods to investigate size and location of damage on performance of the protected (there is research on structural members)
  - Develop 'opinion-based' guidance using members knowledge / engineering judgement
  - Combination of above
- Workshop tomorrow is a good opportunity to discuss this in more detail, develop ideas and decide how (if) we progress