The Importance of Scheme fix in EIA: Lessons learnt from a recent large EIA

What is scheme fix in EIA and why is it so important?

One of the fundamental elements of the Environmental Impact Assessment (EIA) process is scheme fix (or design freeze). Scheme fix can be defined as the point where agreement of the proposed scheme description is reached between the Applicant, the design team and the environmental team. This is fundamental as this represents the ‘proposed scheme’ which is assessed by each of the technical leads undertaking impact assessments and authoring chapters of the Environmental Statement (ES). The proposed scheme at the scheme fix point needs to be sufficiently developed to allow to EIA to be undertaken.

What factors can impact upon scheme fix and what are the implications for the EIA when scheme fix is delayed or the proposed scheme design is altered post scheme fix?

The point at which the design of the scheme becomes fixed (for EIA purposes) should be built into the overall EIA programme to ensure that sufficient resource is available to carry out the assessments. If the programmed scheme fix date is delayed, there are obvious implications for the delivery of the ES. In an ideal scenario, the delivery date of the ES would be set back in accordance with the delay to the scheme fix date; however, this is not always possible due to clients’ expectations.

The proposed scheme design can evolve primarily due to the following factors (discussed in turn below):

- impact assessment being progressed resulting in mitigation measures being proposed and built into the scheme design;
- the outcome of consultation with key stakeholders and regulatory bodies; and,
- progression of detailed design alongside the EIA.

The proposed scheme design can evolve iteratively as environmental impacts are assessed and mitigation measures become proposed as part of the scheme design (known as embedded mitigation), potentially resulting in an altered design to that which was originally proposed. An example of this would be where a noise and vibration impact assessment concludes an impact of major adverse significance to waterbird receptors, as a result of piling induced noise. In order to reduce the significance of the impact to a minor adverse or negligible level, an acoustic barrier could be proposed (and built into the scheme design as embedded mitigation). Such a barrier could have implications for the landscape and visual impact assessment (LVIA), and would therefore need to be considered as part of the LVIA (potentially after the LVIA has been produced, depending on the point of scheme fix).

In addition to the mechanism outlined above, there is the risk of the proposed scheme design changing following agreement of scheme fix, due to consultation with key stakeholders and regulatory bodies. An example could include the requirement to create habitat in order to mitigate for the loss of habitat within the footprint of the proposed scheme.
The detailed design stage is often progressed alongside the EIA process, resulting in additional detail becoming available prior to submission of the ES, or elements of the proposed scheme being altered.

When the EIA programme is constrained, it is often not possible to wait until the scheme design has been fixed to undertake the impact assessment. The risks of an evolving scheme design and agreement of scheme fix late within the EIA process can often manifest themselves in the form of in-consistency within the technical chapters in terms of what has been assessed, and the potential requirement to update / amend the impact assessments late on within the EIA process.

**How to deal with delays / changes to scheme fix**

There are a number of factors which can impact upon the proposed scheme design, which could occur post scheme fix.

In order to ensure that the final ES is consistent in terms of the scheme which has been assessed, it is imperative that regular dialogue is maintained between the project manager of the environmental team and engineering team, as well as within the environmental team itself.

One way of dealing with uncertainty within the scheme design is the use of the ‘Rochdale Envelope’. This is an acknowledged method of assessing impacts where details of the project have not been resolved at the time of application and therefore provides a degree of flexibility to the developer.

In such instances, a maximum worst case envelope is assessed, within which the proposed scheme could be located.

Where the Rochdale envelope approach is not adopted, there needs to be a degree of flexibility within the environmental team to ensure changes post scheme fix can be incorporated into the EIA (where relevant), however, there also needs to be an agreed cut-off point where no additional changes can be brought into the EIA in order to ensure that the ES can be finalised and delivered on time in accordance with clients’ expectations. This is a fine balance and requires careful and effective management by the EIA project manager.

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