Name of Method: Network and Pathway/Systems Analysis/ Causal Chain Analysis

Summary of Method: The approach has been applied in various forms, with a summary of the overall aim presented here. The method is based on the concept that there are links and interaction pathways between individual elements of the environment, and that when one such element is affected it has a specific effect on the elements that interact with it, whether that effect is direct or indirect. The method essentially aims to identify the links that describe the pathway from the initial action to the eventual impact by drawing a web of the initiating events, the resulting changes and linking these to the various resulting impacts. The result visually show the relationships and interactions among elements of a proposal and the resource. It enables the individual, additive and synergistic interactions to be differentiated and hence can be used to give a causal analysis of cumulative impacts. The ability to identify direct, indirect and cumulative impacts is particularly useful, as it enables the root cause to be highlighted. The visual picture of cause-effect links also makes the mechanisms involved clear.

Advantages of Method: Such assessments can be done quickly and cheaply, with the potential for public participation. The visual nature of the method also makes the process open and explicit, aiding understanding of the impacts.

Limitations of Method: If not done fully, the method can miss important impacts. The method also does not deal well with spatial impacts or impacts that vary over time. The diagrams created have the potential to be very complex.

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