

## 2.0 ASSESSMENT FUNDAMENTALS

### 2.1 CUMULATIVE EFFECTS DEFINED

Cumulative effects are changes to the environment that are caused by an action in combination with other past, present and future human actions.<sup>6</sup> A CEA is an assessment of those effects (⇒ “Actions” Include Projects and Activities).

CEA is environmental assessment as it should always have been: an Environmental Impact Assessment (EIA) done well. In practice, the assessment of cumulative effects requires consideration of some concepts that are not always found in conventional approaches followed in EIAs. Specifically, CEAs are typically expected to:

- assess effects over a larger (i.e., “regional”) area that may cross jurisdictional boundaries;<sup>7</sup>
- assess effects during a longer period of time into the past and future;
- consider effects on Valued Ecosystem Components (VECs) due to interactions with other actions, and not just the effects of the single action under review;
- include other past, existing and future (e.g., reasonably foreseeable) actions; and
- evaluate significance in consideration of other than just local, direct effects.

Cumulative effects are not necessarily that much different from effects examined in an EIA; in fact, they may be the same. Many EIAs have focussed on a local scale in which only the “footprint” or area covered by each action’s component is considered. Some EIAs also consider the combined effects of various components together (e.g., a pulp mill and its access road). A CEA further enlarges the scale of the assessment to a regional level. For the practitioner, the challenge is determining how large an area around the action should be assessed, how long in time, and how to practically assess the often complex interactions among the actions. In all other ways, CEA is fundamentally the same as EIA and, therefore, often relies on established EIA practice.



#### *Definitions and Concepts*

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### Conditions for Potential Cumulative Effects

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Cumulative effects may occur if:

- local effects on VECs occur as a result of the action under review; and
  - those VECs are affected by other actions.
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<sup>6</sup> Numerous definitions of CEAs exist in the literature. Many of these are quite complicated and refer to technical aspects of cumulative effect’s interactions. The Working Group prefers a simple definition based on an important additional requirement of CEA as compared to EIA: the specific consideration of effects due to other projects. This definition is intended specifically for single-project assessments as opposed to regional planning (in which case there is not necessarily a single project that serves as the starting point and focus of the assessment), and borrows the broad definition of “environment” as used in the *Canadian Environmental Assessment Act*.

<sup>7</sup> Includes effects due to natural perturbations affecting environmental components and human actions.