

## **Annex B. Working Glossary of Key Terms Used in this Document**

**(modified from EC 1994 and US EPA 1998)**

**Analysis** — A phase of integrated risk assessment that characterizes exposure to a stressor(s) and the ability of the stressor(s) to cause adverse effects to human or nonhuman receptors.

**Assessment endpoint** — An explicit expression of the environmental value or human condition that is to be protected, operationally defined by an entity (such as salmon or humans) and its attributes (such as age structure or liver function).

**Characterization of effects** — A portion of the analysis phase of integrated risk assessment that evaluates the ability of a stressor(s) to cause adverse effects to human or nonhuman receptors under a particular set of circumstances. Includes dose (concentration) - response (effect) assessment.

**Characterization of exposure** — A portion of the analysis phase of integrated risk assessment that evaluates the co-occurrence or contact of the stressor with one or more ecological or human entities. Equivalent to exposure assessment.

**Community** — In ecology, an assemblage of populations of different species within a specified location in space and time. For humans, a component of society bounded in a geographic sense.

**Conceptual model** — A written description and visual representation of predicted relationships between ecological and human entities, the stressors to which they may be exposed, and the sources of the stressors. Developed during the problem formulation phase of integrated risk assessments.

**Disturbance** — Any event or series of events that disrupts human or ecological structure and changes resource availability or the physical environment.

**EC<sub>50</sub>** — A concentration that is statistically or graphically estimated to cause a specified effect in 50% of a group of test organisms under specified experimental conditions.

**Ecological risk assessment** — The process that evaluates the nature and likelihood of adverse ecological effects from exposure to one or more stressors. Likelihoods may be qualitative or quantitative.

**Ecosystem** — The biotic community and abiotic environment within a specified location in space and time.

**Exposure** — The contact or co-occurrence of a stressor with a human or nonhuman receptor.

**Hazard assessment** — The identification of the adverse effects which a stressor has an inherent capacity to cause. Hazard assessment activities occur in the problem formulation phase of integrated risk assessment.

**Human health risk assessment** — The process that evaluates the nature and likelihood of adverse human health effects from exposure to one or more stressors.

**Integrated risk assessment** — A science-based approach that combines the processes of risk estimation for humans, biota, and natural resources in one assessment.

**LC<sub>50</sub>** — A concentration that is statistically or graphically estimated to be lethal to 50% of a group of test organisms under specified experimental conditions.

**Lowest-observed-adverse-effect level (LOAEL)** — The lowest level of a stressor evaluated in a test that causes statistically or biologically significant adverse changes in test organisms compared with the controls.

**No-observed-adverse-effect level (NOAEL)** — The highest level of a stressor evaluated in a test that does not cause statistically or biologically significant adverse changes in test organisms compared with the controls.

**Population** — An aggregate of individuals of a species (human or nonhuman) within a specified location in space and time.

**Problem Formulation** — A phase of integrated risk assessment that evaluates characteristics of the stressor(s), human/ecological system, and receptors, identifies assessment endpoints, develops one or more conceptual models, and develops an analysis plan.

**Receptor** — The ecological entity or human exposed to the stressor.

**Risk characterization** — A phase of integrated risk assessment that integrates exposure and effect information to estimate the likelihood and severity of adverse effects associated with exposure to a stressor.

**Source** — An entity or action that releases to the environment or imposes on the environment a chemical, physical, or biological stressor or stressors.

**Stakeholder** — A member of society concerned about the environmental issues associated with the assessment or who may be affected by management decisions that use the results of the assessment.

**Stressor** — Any physical, chemical (substance), or biological entity that can induce an adverse response. Synonymous with agent.

**Trophic levels** — A functional classification of taxa within a community that is based on feeding relationships (e.g., aquatic and terrestrial green plants make up the first trophic level and herbivores make up the second).

**Uncertainty** — The lack of information or knowledge about a phenomenon, process, or measurement. Uncertainty usually can be reduced through further measurement or study. (See variability.)

**Variability** — The true diversity or variability of a population. Variability cannot be reduced through further measurement or study. (See uncertainty.)