

Terms/Terminology Integration

Remedial Investigation/Feasibility Study integration

WAC 173-204-560(4)(f)(iii)

(iii) A phased approach for evaluation of alternatives may be required for certain sites, including an initial screening of alternatives to reduce the number of potential remedies for the final detailed evaluation. The final evaluation of cleanup action alternatives that pass the initial screening shall consider the following factors:

- (A) Overall protection of human health and the environment, time required to attain the cleanup standard(s), and onsite and off-site environmental impacts and risks to human health resulting from implementing the cleanup alternatives;
- (B) Permanence, the degree to which the alternative permanently reduces the toxicity, mobility or volume of contaminants, including the adequacy of the alternative in destroying the contaminants, the reduction or elimination of contaminants releases and sources of releases, the degree of irreversibility of waste treatment process, and the characteristics and quantity of treatment residuals generated. **(Per MTCA Language)**
- (C) Attainment of the cleanup standard(s) and compliance with applicable federal, state, and local laws;
- (D) Short-term effectiveness, including protection of human health and the environment during construction and implementation of the alternative; and
- (E) Long-term effectiveness, including degree of certainty that the alternative will be successful, long-term reliability, magnitude of residual, biological and human health risk, and effectiveness of controls for ongoing discharges and/or controls required to manage treatment residues or remaining wastes cleanup and/or disposal site risks;
 - (g) Ability to be implemented. The ability to be implemented including the potential for landowner cooperation, consideration of technical feasibility, availability of needed off-site facilities, services and materials, administrative and regulatory requirements, scheduling, monitoring requirements, access for construction, operations and monitoring, and integration with existing facility operations and other current or potential cleanup actions;
 - (h) Cost, including consideration of present and future direct and indirect capital, operation, and maintenance costs and other foreseeable costs;
 - (i) The degree to which community concerns are addressed;
 - (j) The degree to which recycling, reuse, and waste minimization are employed; and
 - (k) Environmental impact. Sufficient information shall be provided to fulfill the requirements of chapter 43.21C RCW, the State Environmental Policy Act. Discussions of significant short-term and long-term environmental impacts, significant irrevocable commitments of natural resources, significant alternatives including mitigation measures, and significant environmental impacts which cannot be mitigated shall be included.

MTCA/SMS terms integration

New definition:

Bioassay: An assessment of conditions and/or factors potentially affecting organisms or assemblages of organisms (communities) using measurable attributes associated with those organisms. This includes but is not limited to laboratory tests and field evaluations of living plants, animals, and other organisms. Also included are evaluations of indigenous field organisms for long-term effects, assessments of biological effects resulting from bioaccumulation and biomagnification, and/or extrapolated values or methods for simulating effects from prolonged exposure periods.

Current definition:

"Bioassay" means a test procedure that measures the response of living plants, animals, or tissues to a sediment sample.

New definition:

Biological Toxicity Test: A test procedure that measures the toxicological response of living plants, animals, other organisms, tissues or subsystems exposed to discrete samples potentially containing toxic compounds.

Current definition:

None ---NOTE May replace "Appropriate biological tests" term.

New definition:

Chronic bioassays: Biological assessments which measure the effects upon organisms or their populations conducted over prolonged exposure periods relative to the life span of the organism. Chronic effects related to sediment exposure may include mortality, reduced growth, impaired reproduction, histopathological abnormalities, benthic community impairment and other adverse effects to organisms as determined appropriate by the department.

Current definition:

"Chronic" means measurements of biological effects using sediment bioassays conducted for, or simulating, prolonged exposure periods of not less than one complete life cycle, evaluations of indigenous field organisms for long term effects, assessment of biological effects resulting from bioaccumulation and biomagnification, and/or extrapolated values or methods for simulating effects from prolonged exposure periods. Chronic effects may include mortality, reduced growth, impaired

reproduction, histopathological abnormalities, adverse effects to birds and mammals, or other endpoints determined appropriate by the department.

New definition:

Acute bioassays: Biological assessments which measure the effects upon organisms conducted for exposure periods that are relatively short in comparison to the life span of the organism. Acute effects may include mortality, larval abnormality, or other endpoints determined appropriate by the department.

Current definition:

"Acute" means measurements of biological effects using surface sediment bioassays conducted for time periods that are relatively short in comparison to the life cycle of the test organism. Acute effects may include mortality, larval abnormality, or other endpoints determined appropriate by the department.

New definition:

Sediment: Any particulate matter which has been deposited as particles on the bed or bottom of a body of water that exists for a minimum of six contiguous weeks on an annual basis.

Current definition:

None

New definition:

Surface Sediment: Sediment located in the biologically active zone or exposed to the water column.

Current definition:

"Surface sediments" or "sediment(s)" means settled particulate matter located in the predominant biologically active aquatic zone, or exposed to the water column. Sediment(s) also includes settled particulate matter exposed by human activity (e.g., dredging) to the biologically active aquatic zone or to the water column.

New definition:

Contaminated Sediment: Surface sediments designated under the procedures of WAC 173-204-310 as exceeding the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

Current definition:

"Contaminated sediment" means sediments designated under the procedures of WAC 173-204-310 as exceeding the applicable sediment quality standards of WAC 173-204-320 through 173-204-340.

New definition:

Active Cleanup Action: Those activities requiring physical implementation whose intent is to result in meeting the cleanup standard. Actions include but are not limited to dredging and capping. Passive actions such as natural attenuation, natural recovery and other time-necessitated actions are not included.

Current definition:

None

New definition:

Biologically Active Zone: The area within the sediment in which a majority of benthic macroinvertebrates are generally found. By default this is the uppermost 10 cm of the sediments. Information such as the vertical distribution of benthic macroinvertebrates or the depth to anoxic sediments can be gathered for each site to be investigated to attempt to delimit the biologically active zone.

Current definition:

None

The following three current SMS terms on the left in the table below are being proposed to be changed to those MTCA terms on the right for the sake of consistency and clarity.

Current Rule term	Proposed Rule term
Sediment Cleanup Study Plan or Cleanup Study Plan	Remedial Investigation/Feasibility Study
Sediment Cleanup Study Report or Study Report	Cleanup Action Plan
Public information/education	Public Participation Plan

The following list contains additional harmonization terms which are being addressed within Ecology, but are currently not ready for presentation to the workgroup.

- Sediment Cleanup Level*
- Sediment Cleanup Standard*
- Minimum Cleanup Level*