

hazards associated with these contaminants are minimal compared to the risk associated with exposure through the food chain.

The greatest risk from exposure to contaminants through the food chain from Site contaminants is to upper trophic level predators that ingest contaminated fish and invertebrates from the Sudbury River and the Continuing Source Areas. The harmful effects to animals at all levels of the food chain include death, reproductive failure, central nervous system effects, and behavioral modification.

5. Uncertainties in Estimating Risk

As in the Human Health Risk Assessment, it should be emphasized that the risk estimates in the Ecological Risk Assessment are based on numerous assumptions, each having uncertainty associated with it. These uncertainties are similar to those discussed for the Human Health Risk Assessment above and are summarized in more detail in Section 7.6.6 of the RI Report.

c. Primary Risks from Site-related Contaminants

A number of contaminants, both Site- and non-Site related are found in the Continuing Source Areas and in the Sudbury River. However, cleanup levels were evaluated only for mercury for several reasons. First, it is one of the only contaminants which showed a clear connection to the Site. In addition, mercury is the primary Site-related contaminant contributing to both human health and ecological risk due, in part, to its propensity to bioaccumulate.

Mercury concentrations in sediments are significantly higher in the Continuing Source Areas than in the River areas. In addition to the risk resulting from these contaminated sediments, these sediments are expected to continue to migrate to the Sudbury River, providing a continuing source to the River. Based on the human health and ecological risks associated with these areas, the potential for continued migration of contaminated sediments from these areas to the River, and the inability to evaluate the effectiveness of River remediation using current data, EPA has focused this remedy on the Continuing Source Areas. Additional studies under OU IV will address River contamination.

D. Conclusion

Actual or threatened releases of hazardous substances from this Site, if not addressed by implementing the response action selected in this ROD, may present an imminent and substantial endangerment to public health, welfare, or the environment. Risks due to contamination in the sediment and surface water in the Continuing Source Areas are dealt with in this ROD. In addition, through the use of institutional controls, risks due to fish ingestion in the Sudbury River are also temporarily addressed in this ROD.

VII. DEVELOPMENT AND SCREENING OF ALTERNATIVES

A. Statutory Requirements/Response Objectives

Under its legal authorities, EPA's primary responsibility at Superfund Sites is to undertake remedial actions that are protective of human health and the environment. In addition, Section 121 of the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) establishes several other statutory requirements and preferences, including: a requirement that EPA's remedial action, when complete, must comply with all Federal and more stringent state environmental standards, requirements, criteria or

**EPA Superfund
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