

PROJECT SUMMARY

B.C. HUMAN HEALTH RISK ASSESSMENT GUIDANCE

PURPOSE

The Ministry of Health (the Ministry) has developed human health risk assessment (HHRA) guidance intended to outline the Ministry's policies and expectations for how human health is assessed and protected within prospective HHRAs.

The HHRA guidance is intended for use by risk assessment professionals, industry, regulatory agencies, health authorities, communities, and other stakeholders in British Columbia (B.C.) who are involved in overseeing, conducting, or reviewing HHRAs.

The Ministry sought feedback from end users and other affected groups, which was considered as the guidance was drafted.

WHAT IS HUMAN HEALTH RISK ASSESSMENT?

Human health risk assessment is a well-established methodology that identifies and quantifies the potential risk of adverse health effects in humans who may be exposed to chemical contaminants in environmental media, such as air, water, soil, and food. Human health risk assessments are conducted to inform regulatory approval processes, for example the identification and remediation of contaminated sites and environmental assessments (EA) for proposed projects. The Canadian Council of Ministers of the Environment, Health Canada, and various provincial agencies use HHRA methodology to develop environmental quality criteria for air, soil, and drinking water.

Human health risk assessment provides information to decision-makers, industry, and communities to better evaluate and make decisions regarding the potential health impacts of new or existing environmental hazards and the effectiveness of mitigation measures. Human health risk assessment can also help health agencies prioritize policy, program, or service needs.

WHY IS NEW HHRA GUIDANCE NEEDED?

Use of HHRA in B.C. has increased in recent years as a tool to evaluate the potential health impacts of projects. Previously, no B.C.-specific guidance on how to conduct HHRAs for proposed projects or activities (prospective HHRAs) was available. Lack of guidance resulted in inconsistencies in how HHRAs were conducted and reviewed for prospective projects and inefficiencies in the regulatory approval process.

The Ministry aims to achieve the following objectives with the HHRA guidance:

- more accurate understanding of the potential health effects of proposed projects or activities from chemical contamination of environmental media;
- a consistent approach to conducting HHRAs to adequately assess the potential effects on human health;
- scientifically sound, relevant, and applicable information in decision-making;
- support for health agencies, regulators, communities, and other reviewers in the critical appraisal of prospective HHRAs;

PROJECT SUMMARY

B.C. HUMAN HEALTH RISK ASSESSMENT GUIDANCE

- greater clarity and predictability for risk assessors, industry, First Nations, and other stakeholders regarding the Ministry's expectations for prospective HHRAs;
- more efficient use of the Ministry's time and human and financial resources, in the conduct and review of HHRAs; and
- Ministry leadership in the protection of human health in the EA process.

HOW WILL THE NEW GUIDANCE BE APPLIED?

Information developed through an HHRA using this guidance may form conditions in project permits. Although the document is not a binding or prescriptive protocol, adherence to the guidance may be required when directed by the applicable regulatory authority.

Note that this document does **NOT** provide guidance for:

- human health risk assessments conducted under the B.C. Contaminated Sites Regulation, where Ministry of Environment and Climate Change Strategy guidance applies;
- assessing health risks from exposure to biological, radiological, or physical hazards; and
- assessing impacts to socio-economic determinants of health, which requires other methods, such as health impact assessment.

WHO WAS INVOLVED IN DEVELOPING THIS GUIDANCE?

The Ministry drafted the guidance with input and expertise from a technical advisory group, including representatives from:

- B.C. Ministry of Environment and Climate Change Strategy
- B.C. Environmental Assessment Office
- Office of the Provincial Health Officer
- Regional Health Authorities
- First Nations Health Authority
- B.C. Centre for Disease Control
- Health Canada
- Two Risk Assessment Professionals (from Wilson Scientific and Intrinsik Corp.)

WHAT ARE THE NEXT STEPS?

Version 1.0 of the guidance will be a 'living document' for one year, during which time the Ministry will accept feedback from users of the HHRA guidance at: HHRAComments@gov.bc.ca.