
San Francisco Bay Regional Water Quality Control Board

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SUBJECT: Update to Environmental Screening Levels

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In May of 2013, staff released an update to the Environmental Screening Levels (ESLs) that addressed the ESL Workbook (a Microsoft 2010 Excel file), which includes an Interactive Tool (formerly ESL Surfer) and Lookup Tables. Staff has now finished updating the supporting User's Guide, *Derivation and Application of Environmental Screening Levels*. This cover memo provides a summary of changes reflected in the 2013 User's Guide. In addition, a few minor changes have been made to the ESL Workbook and are also described below.

User's Guide Update

The December 2013 update addresses the following areas:

- The User's Guide is now a stand-alone document. The Lookup Tables are separate PDFs and can also be accessed via the ESL Workbook (Excel file). The ESL Workbook comprises an Interactive Tool (formerly ESL Surfer) and Lookup Tables (static tables that are used by the Interactive Tool).
- The Guide has been reorganized from the 2008 version. Topics have been consolidated and rearranged to help users understand how the ESLs have been derived and how they should be used.
- The use of Tiers is explained and clarified. Tier 1 uses default settings for land use, depth of impacted soil, use of groundwater, application of Maximum Contaminant Levels, and soil type. Tier 2 allows application of some site-specific scenarios to modify the default settings. ESLs can be used in both Tier 1 and Tier 2. Tier 3 is a "traditional" risk assessment that is done outside the ESLs framework using accepted practices for human health and ecological risk assessment.
- The Guide now includes a discussion of Conceptual Site Models – how they should be developed and used.
- The following chapters have been rewritten to reflect our current understanding of these topics:
 - Chapter 6: Vapor intrusion
 - Chapter 7: Cumulative Risk
 - Chapter 8: Total Petroleum Hydrocarbons (TPH)

ESLs Workbook and Lookup Tables Update

Minor updates to the May 2013 ESLs have been in the following areas:

- Cis-1,2-DCE: availability of a toxicity factor from DTSC has allowed us to include health-based screening levels for indoor air and soil gas. (This also changed the direct exposure soil screening levels.)
- Table F-3 (drinking water screening levels): added child receptor for risk-based screening levels
- Table K2 (commercial/industrial direct exposure soil screening levels): corrected a minor calculation error affecting some carcinogens
- A index of tables has been added
- Minor edits were made to several tables to improve clarity

Future changes

Water Board staff continue to track developments in risk assessment and maintain a short list of topics to be addressed in future updates of the ESL Workbook and User's Guide.

You may sign up for electronic notifications regarding the ESLs on the [Water Board's website](#) (or from the Water Board's home page, click "Email Subscriptions"). Once there, click the Environmental Screening Levels box under the "General" category.

Questions

Please refer to our "Frequently Asked Questions" document on the Water Board's [ESLs webpage](#). For further information or to make suggestions for future updates, please contact Uta Hellmann-Blumberg, staff toxicologist, at 510-622-5047 or uhellmann-blumberg@waterboards.ca.gov.