

SUPPLEMENTAL TABLE OF CONTENTS

FINAL SITE-WIDE HUMAN HEALTH RISK ASSESSMENT

UPPER COLUMBIA RIVER SITE

The Final Site-Wide Human Health Risk Assessment (HHRA) for the Upper Columbia River Site was completed by EPA on February 10, 2021. A copy of the report, which includes a Table of Contents, is available on EPA's website (<https://semspub.epa.gov/src/collection/10/SC32350>). Due to the large size of the document, the Appendices and Attachment 1 – Response to Public Comments, and the Tables and Figures were published as separate documents. This Supplemental Table of Contents has been developed at community request to facilitate navigation and review of the HHRA document. This Supplemental Table of Contents includes the following sections of the HHRA document: 1) *REDACTED Appendices: Upper Columbia River Final Site-Wide Human Health Risk Assessment (which includes Attachment 1 – Response to Public Comments)*; and 2) *REDACTED Tables and Figures: Upper Columbia River Final Site-Wide Human Health Risk Assessment*.

REDACTED Appendices: Upper Columbia River Final Site-Wide Human Health Risk Assessment

Link: <https://sempub.epa.gov/src/collection/10/SC32350>

Appendix 1: Upper Columbia River: Final Site-Wide Human Health Risk Assessment (HHRA) for the Colville High Intensity Resource User (CHIRU) Population....**PDF Page 1**

Appendix 2: Upper Columbia River (UCR): Final Site-Wide Human Health Risk Assessment (HHRA) for the Spokane Tribe of Indians (STI) Population....**PDF Page 268**

Appendix 3: Sweat Lodge Air Exposure Pathway for Metals in Surface Water at UCR Site....**PDF Page 340**

Appendix 4: Estimates for Background Concentrations of COPCs in Soil....**PDF Page 346**

Appendix 5: Results of IEUBK Batch Mode Runs....**PDF Page 354**

Appendix 6: EPA Action Memorandum for the Upper Columbia River Site Residential Properties Soil Removal near Northport, Stevens County, Washington....**PDF Page 603**

Appendix 7: EPA Letter to K. McCaig, Teck American Incorporated, dated June 14, 2017....**PDF Page 630**

Appendix 8: EPA Response to December 2017 Petition re: A Comprehensive Air Monitoring Program from Northport to the U.S. – Canada Border, April 18, 2018....**PDF Page 633**

Appendix 9: Beach-by-Beach Comparison of the Concentration of COPCs in 0 to 15 cm (Surface Sediment) Versus 0 to 45 cm; (Subsurface Sediment) Core Samples for the Less than 2 mm Particle Size Fraction....**PDF Page 636**

Appendix 10: CH2M Groundwater Memorandum....**PDF Page 638**

Appendix 11: Approach Used to Adjust Soil and Sediment Arsenic and Lead Concentrations Based on Relative Bioavailability....**PDF Page 652**

Appendix 12: Estimation of Exposure Point Concentrations (EPCs) at the Upper Columbia River (UCR) Site from Single Incremental Composite Samples (ICS)....**PDF Page 661**

Appendix 13: Residential Soil EPCs Used in Lead Residential Beach IEUBK Evaluation....**PDF Page 670**

Appendix 14: Proposed Approach to Calculate Food Consumption Rates in Children from Adult Consumption Rates in the Upper Columbia River (UCR) Human Health Risk Assessment (HHRA)....**PDF Page 672**

Appendix 15: All Ages Lead Model Analysis....**PDF Page 680**

Appendix 16: Results of ALM....**PDF Page 687**

Appendix 17: Response to TAI Comment on Public Review Draft of the UCR HHRA: Alternative Diet Lead Intake....**PDF Page 734**

**Attachment 1: EPA Response to Public Comments Received on April 3, 2020
Public Review Draft Site-wide HHRA for the UCR....PDF Page 737**

Attachment 1: Response to TAI Comment on Public Review Draft of the UCR HHRA:
Alternative Diet Lead Intake....**PDF Page 783**

Attachment 2: Response to TAI's Comment, "4.2. Residential Risks are Overstated for
ADAs that will not be Developed for Residential Use"**PDF Page 785**

Attachment 3: Response to TAI's Comment, "5.3 Consumption Rates for Shellfish DoNot
Reflect CCT Tribal Survey or Regional Data"**PDF Page 787**

Attachment 4: Public Correspondence....**PDF Page 789**

REDACTED Tables and Figures: Upper Columbia River Final Site-Wide Human Health Risk Assessment

Link: <https://semspub.epa.gov/work/10/100311315.pdf>

Table ES-1. Summary of Residential Soil Exposure Areas that Exceed Risk Benchmarks for the Current Residential Child Population (Excluding Residential Beaches) when Risks are Summed Across Pathways....**PDF Page 1**

Table ES-2. Summary of Residential Beach Exposure Areas that Exceeded Risk Benchmarks for Both Lead and Non-Lead COPCS for the Current Residential (Beach DUs) Child Population, not Including Fish Consumption....**PDF Page 4**

Table ES-3. Summary of Upland Aerial Deposition Areas that Exceed Risk Benchmarks for the Future Residential Child Population when Risks are Summed Across Pathways....**PDF Page 5**

Table 2-1. Public Water Systems, Groundwater Wells, and Springs within Five Miles of UCR/Lake Roosevelt Shoreline....**PDF Page 7**

Table 2-2. Gaging Stations Used to Develop Water Budgets....**PDF Page 12**

Table 2-3. Residential Soil Decision Units Subject to Time Critical Removal Actions (TCRAs) or Voluntary Removal Actions (VRAs) as of June 20, 2019....**PDF Page 13**

Table 2-4. Number of Surface Water Samples Analyzed for each Analyte, by Reach....**PDF Page 14**

Table 2-5. Summary of Site Sediment and Beach Soil Data....**PDF Page 29**

Table 2-6. Public Beach Sediment Samples and Analyses Used in the HHRA....**PDF Page 31**

Table 2-7. Number of Planned and Actual Soil Samples by Area, Bossburg Flat Beach Refined Sediment and Soil Study (TAI, 2016a)**PDF Page 33**

Table 2-8. Summary of ADA Soil Samples, 2014 Upland Soil Study (TAI, 2015a)**PDF Page 34**

Table 2-9. Summary of RFDA Soil Samples, 2014 Upland Soil Study (TAI, 2015a)**PDF Page 35**

Table 2-10. 2014 Residential Soil Study Sample Collection Chronology (CH2MHill, 2016a)**PDF Page 36**

Table 2-11. Summary of Sample Counts by Decision Unit Category, 2014 UCR Residential Soil Study (CH2MHill, 2016a)**PDF Page 37**

Table 2-12. Summary of Total Soil Samples Collected, 2016 Residential Soil Study (TAI, 2017a)....**PDF Page 38**

Table 2-13. Summary of Field QC Samples Collected by DU Type, 2016 Residential Soil Study (TAI, 2017a)**PDF Page 39**

Table 2-14. Summary of Outdoor Air Data....**PDF Page 40**

- Table 2-15.** Summary of Fish Tissue Composite Samples, EPA Phase I 2005 Fish Tissue Study (CH2MHill, 2007)**PDF Page 41**
- Table 2-16.** Summary of Laboratory Analyses by Fish Species and Type, EPA Phase I 2005 Fish Tissue Study (CH2MHill, 2007)**PDF Page 42**
- Table 2-17.** Summary of Fish >30 cm in Length Collected During the 2009 Fish Tissue Sampling Program (TAI, 2013a)**PDF Page 43**
- Table 2-18.** Summary of Mussel Composite Collection Locations**PDF Page 45**
- Table 2-19.** Summary of Shellfish Tissue Composite Samples, TAI 2016 Macroinvertebrate Tissue Study....**PDF Page 46**
- Table 2-20.** Summary of Laboratory Analyses by Sampling Area, TAI 2016 Macroinvertebrate Tissue Study (TAI, 2017c)**PDF Page 47**
- Table 2-21.** Plant Tissue Samples Collected During the 2018 Plant Tissue Study....**PDF Page 48**
- Table 3-1.** Summary of Exposure Areas by Medium....**PDF Page 49**
- Table 3-2.** Mean Site-Wide Concentrations of COPCs in Particles <2 mm from the Surface and Subsurface Sediment Depth Horizons....**PDF Page 50**
- Table 3-3.** Medium-Specific Exposure Scenarios and Parameters used to derive RBSLs for COI Screening....**PDF Page 51**
- Table 3-4.** COI Screen for Surface Water....**PDF Page 55**
- Table 3-5.** COI Screen for Public Beach Surface Sediment....**PDF Page 57**
- Table 3-6.** COI Screen for Public Beach Surface Soil....**PDF Page 59**
- Table 3-7.** COI Screen for Public Beach Subsurface Sediment....**PDF Page 60**
- Table 3-8.** COI Screen for Public Beach Subsurface Soil....**PDF Page 64**
- Table 3-9.** COI Screen for Residential Beach Sediment....**PDF Page 65**
- Table 3-10.** COI Screen for Relict Floodplain Surface Soil....**PDF Page 66**
- Table 3-11.** COI Screen for Outdoor Air....**PDF Page 67**
- Table 3-12.** Maximum Backfill Concentrations of COPCs in Residential Soil DUs Subject to TCRAs or VRAs as of June 20, 2019....**PDF Page 68**
- Table 3-13.** COI Screen for Residential Soil....**PDF Page 69**
- Table 3-14.** COI Screen for Upland Soil....**PDF Page 70**
- Table 3-15.** COI Screen for Fish Fillet Tissue....**PDF Page 71**
- Table 3-16.** Mean RBA-Adjusted Soil Lead Concentrations from 2014-2016 Residential Soil Study Areas....**PDF Page 74**
- Table 3-17.** Disturbed, Unfiltered Surface Water EPCs....**PDF Page 75**
- Table 3-18.** Public Beach Surface Sediment EPCs....**PDF Page 76**

Table 3-19. Public Beach Subsurface Sediment EPCs....**PDF Page 85**

Table 3-20. Residential Beach Surface Sediment EPCs....**PDF Page 88**

Table 3-21. Relict Floodplain EPCs....**PDF Page 96**

Table 3-22. Public Beach (Bossburg Flat Beach) Surface Soil EPCs....**PDF Page 99**

Table 3-23. Public Beach (Bossburg Flat Beach) Subsurface Soil EPCs....**PDF Page 100**

Table 3-24. Outdoor and Indoor Air EPCs....**PDF Page 101**

Table 3-25. Summary Statistics for Surface Soil EPCs....**PDF Page 102**

Table 3-26. Residential Surface Soil/Dust EPCS....**PDF Page 103**

Table 3-27. Residential Soil Associated with Residential beach DU EPCs....**PDF Page 300**

Table 3-28. Upland ADA Surface Soil EPCs....**PDF Page 308**

Table 3-29. Fish Tissue EPCs by Species....**PDF Page 337**

Table 3-30. IEUBK Input Parameters Based on TRW Lead Committee Recommendations and Site-Specific Information....**PDF Page 342**

Table 3-31. Age Dependent Inputs to the IEUBK Model Based on TRW Lead Committee Recommendations....**PDF Page 343**

Table 3-32. Dermal Absorption Fractions (ABS) for COPCs in Soil....**PDF Page 344**

Table 3-33. Dermal Permeability Coefficients (Kp) for COPCs in Water....**PDF Page 345**

Table 3-34. RME and CTE Human Intake Factors (HIFs) and Inhalation Time-Weighting Factors (TWFs) for the Outdoor Worker....**PDF Page 346**

Table 3-35. RME and CTE Human Intake Factors (HIFs) and Inhalation Time-Weighting Factors (TWFs) for the Resident....**PDF Page 347**

Table 3-36. RME and CTE Human Intake Factors (HIFs) and Inhalation Time-Weighting Factors (TWFs) for the Recreational Visitor....**PDF Page 348**

Table 3-37. Exposure Parameters for Outdoor Worker Populations....**PDF Page 350**

Table 3-38. Exposure Parameters for Residents....**PDF Page 351**

Table 3-39. Exposure Parameters for Recreational Visitors....**PDF Page 353**

Table 4-1. EPA Cancer Classification Categories and Descriptions....**PDF Page 356**

Table 4-2. Non-cancer Toxicity Data – Oral/Dermal Upper Columbia River Site....**PDF Page 357**

Table 4-3. Non-cancer Toxicity Data – Inhalation Upper Columbia River Site....**PDF Page 358**

Table 4-4. Cancer Toxicity Data – Oral/Dermal upper Columbia River Site....**PDF Page 359**

Table 4-5. Cancer Toxicity Data – Inhalation Upper Columbia River Site....**PDF Page 360**

Table 4-6. COPCs without Toxicity Values....**PDF Page 361**

Table 4-7. Oral Absorption Efficiency Fractions for Dermal Exposure....**PDF Page 362**

Table 4-8. Toxic Equivalency Factors (TEFs) for Dioxins and Dioxin-like Compounds....**PDF Page 363**

Table 4-9. RPFs for Carcinogenic PAHs....**PDF Page 364**

Table 4-10. Summary Statistics for DU RBAs (Excluding Beaches)**PDF Page 365**

Table 4-11. Summary Statistics for Beach DU RBAs (SRC, 2017)**PDF Page 366**

Table 4-12. Summary Statistics for Upland ADA and RFDA RBAs....**PDF Page 367**

Table 5-1. Lead Intake for UCR Fish Species....**PDF Page 368**

Table 5-2. IEUBK Model Results for Children Exposed to Lead in Residential Soil without Fish Consumption....**PDF Page 369**

Table 5-3. Residential DUs Exceeding Lead Benchmarks for Child Residents not Including Fish Consumption, by DU Type....**PDF Page 383**

Table 5-4. Mean Lead Concentrations in Fish Species....**PDF Page 384**

Table 5-5. IEUBK Model Results for Children Exposed to lead in Upland Soil without Fish Consumption....**PDF Page 385**

Table 5-6. Residential DUs used for Residential Beach Time-Weighting....**PDF Page 388**

Table 5-7. IEUBK Results for Exposure of Children to Lead at Residential Beachs, without Fish Consumption....**PDF Page 389**

Table 5-8. Lead Risk Calculations for Child Recreational Visitors at Public beaches, without Fish Consumption....**PDF Page 390**

Table 5-9. Lead Risk Calculations for Child Recreational Visitors at Bossburg Flat Beach UDUs, without Fish Consumption....**PDF Page 391**

Table 5-10. Lead Risk Calculations for Child recreational Visitors at Relict Floodplains on the UCR, without Fish Consumption....**PDF Page 392**

Table 5-11. Risk Predictions for Average RBA-Adjusted Sediment and Beach Soil Lead Concentration from 0-45 cm Horizon at Bossburg Flats and Evans Campground Beaches and UDUs using P3, P5, and P8 Risk Benchmarks....**PDF Page 393**

Table 5-12. Slope Factor Tiers for Assessing Oral Exposures to PCBs....**PDF Page 394**

Table 5-13. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Residential Soil/Dust for non-Lead COPCs for the RME: Current Resident....**PDF Page 395**

Table 5-14. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Residential Soil/Dust for Non-Lead COPCs for the CTE: Current Resident....**PDF Page 396**

Table 5-15. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Current Resident who Consumes Burbot....**PDF Page 397**

Table 5-16. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Current Resident Who Consumes Kokanee....**PDF Page 406**

Table 5-17. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Current Resident who Consumes Northern Pike....**PDF Page 415**

Table 5-18. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Current Resident who Consumes Rainbow Trout....**PDF Page 424**

Table 5-19. Non-Cancer Target Organ System Hazards for non-Lead COPCs for the RME: Current Resident who Consumes Smallmouth Bass....**PDF Page 433**

Table 5-20. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Current Resident who Consumes White Sturgeon....**PDF Page 442**

Table 5-21. Non-Cancer Target Organ System Hazards for non-Lead COPCs for the RME: Current Resident who Consumes Sucker....**PDF Page 451**

Table 5-22. Non-Cancer Target Organ System hazards for non-Lead COPCs for the RME: Current Resident who Consumes Walleye....**PDF Page 460**

Table 5-23. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Current Resident who Consumes Whitefish....**PDF Page 469**

Table 5-24. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Current Resident who Consumes Burbot....**PDF Page 478**

Table 5-25. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Current Resident who Consumes Kokanee....**PDF Page 487**

Table 5-26. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Current Resident who Consumes Northern Pike....**PDF Page 496**

Table 5-27. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Current Resident who Consumes Rainbow Trout....**PDF Page 505**

Table 5-28. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Current Resident who Consumes Smallmouth Bass....**PDF Page 514**

Table 5-29. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Current Resident who Consumes White sturgeon....**PDF Page 523**

Table 5-30. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Current Resident who Consumes Sucker....**PDF Page 532**

Table 5-31. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Current Resident who Consumes Walleye....**PDF Page 541**

Table 5-32. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Current Resident who Consumes Whitefish....**PDF Page 550**

Table 5-33. Range of non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Residential Soil/Dust Paired with Beach DUs for Non-Lead COPCS for the RME: Resident with Beach....**PDF Page 559**

Table 5-34. Range of non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Residential Soil/Dust Paired with Beach DUs for Non-Lead COPCS for the CTE:Resident with Beach....**PDF Page 560**

Table 5-35. Range of non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Residential Soil/Dust Paired with Beach DUs for Non-Lead COPCS for the RME:Future Resident....**PDF Page 561**

Table 5-36. Range of non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Residential Soil/Dust Paired with Beach DUs for Non-Lead COPCS for the CTE:Future Resident....**PDF Page 562**

Table 5-37. Non-Cancer Target Organ System Hazards for Non-Lead COPs for the RME: Future Resident who Consumes Burbot....**PDF Page 563**

Table 5-38. Non-Cancer Target Organ System Hazards for Non-Lead COPs for the RME: Future Resident who Consumes Kokanee....**PDF Page 566**

Table 5-39. Non-Cancer Target Organ System Hazards for Non-Lead COPs for the RME: Future Resident who Consumes Northern Pike....**PDF Page 569**

Table 5-40. Non-Cancer Target Organ System Hazards for Non-Lead COPs for the RME: Future Resident who Consumes Rainbow Trout....**PDF Page 572**

Table 5-41. Non-Cancer Target Organ System Hazards for Non-Lead COPs for the RME: Future Resident who Consumes Smallmouth Bass....**PDF Page 575**

Table 5-42. Non-Cancer Target Organ System Hazards for Non-Lead COPs for the RME: Future Resident who Consumes White Sturgeon....**PDF Page 578**

Table 5-43. Non-Cancer Target Organ System Hazards for Non-Lead COPs for the RME: Future Resident who Consumes Sucker....**PDF Page 581**

Table 5-44. Non-Cancer Target Organ System Hazards for Non-Lead COPs for the RME: Future Resident who Consumes Walley....**PDF Page 584**

Table 5-45. Non-Cancer Target Organ System Hazards for Non-Lead COPs for the RME: Future Resident who Consumes Whitefish....**PDF Page 587**

Table 5-46. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Future Resident who Consumes Burbot...**PDF Page 590**

Table 5-47. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Future Resident who Consumes Kokanee....**PDF Page 593**

Table 5-48. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Future Resident who Consumes Norther Pike Non-Cancer Target Organ System Hazards for Non-LeadCOPCs for the CTE: Future Resident who Consumes....**PDF Page 596**

Table 5-49. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Future Resident who Consumes Rainbow Trout....**PDF Page 599**

Table 5-50. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Future Resident who Consumes Smallmouth Bass....**PDF Page 602**

Table 5-51. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Future Resident who Consumes White Sturgeon....**PDF Page 605**

Table 5-52. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Future Resident who Consumes Sucker....**PDF Page 608**

Table 5-53. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Future Resident who Consumes Walleye....**PDF Page 611**

Table 5-54. Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Future Resident who Consumes....**PDF Page 614**

Table 5-55. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Residential Beach Sediment for Non-Lead COPCs for the RME: Resident with Beach....**PDF Page 617**

Table 5-56. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Residential Beach Sediment for Non-Lead COPCs for the CTE: Resident with Beach....**PDF Page 618**

Table 5-57. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Public Beach Surface Sediment for Non-Lead COPCs for the RME: Outdoor Worker....**PDF Page 619**

Table 5-58. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Public Beach Surface Sediment for Non-Lead COPCs for the CTE: Outdoor Worker....**PDF Page 620**

Table 5-59. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Residential Beach Sediment for Non-Lead COPCs for the RME: Recreational Visitor....**PDF Page 621**

Table 5-60. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Public Beach Surface Sediment for Non-Lead COPCs for the CTE: Recreational Visitor....**PDF Page 622**

Table 5-61. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Relict Floodplain Soil for Non-Lead COPCs for the RME: Recreational Visitor....**PDFPage 623**

Table 5-62. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Relict Floodplain Soil for Non-Lead COPCs for the CTE: Recreational Visitor....**PDFPage 624**

Table 5-63. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Public beach surface Soil for Non-Lead COPCS for the RME: Outdoor Worker....**PDFPage 625**

Table 5-64. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Public Beach Surface Soil for Non-Lead COPCS for the CTE: Outdoor Worker....**PDFPage 626**

Table 5-65. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Public beach Surface Soil for Non-Lead COPCS for the RME: Recreational Visitor....**PDF Page 627**

Table 5-66. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Public beach Surface Soil for Non-Lead COPCS for the CTE: Recreational Visitor....**PDF Page 628**

Table 5-67. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Subsurface Sediment for Non-Lead COPCs for the RME: Outdoor Worker....**PDF Page 629**

Table 5-68. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Subsurface Sediment for Non-Lead COPCS for the CTE: Outdoor Worker....**PDF Page 630**

Table 5-69. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Public beach Subsurface Soil for Non-Lead COPCS for the RME: Outdoor Worker....**PDF Page 631**

Table 5-70. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Public Beach Subsurface Soil for Non-Lead COPCS for the CTE: Outdoor Worker....**PDF Page 632**

Table 5-71. Non-Cancer Risks from Incidental Ingestion of and Dermal Contact with Surface Water for Non-Lead COPCS for the RME: Resident with Beach....**PDF Page 633**

Table 5-72. Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Surface Water for Non-Lead COPCS for the CTE: Resident with Beach....**PDF Page 634**

Table 5-73. Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Surface Water for Non-Lead COPCS for the RME: Outdoor Worker....**PDF Page 635**

Table 5-74. Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Surface Water for Non-LEAD COPCS for the CTE: Outdoor Worker....**PDF Page 636**

Table 5-75. Range of Non-Cancer Risks from Incidental Ingestion of and Dermal Contact with Surface Water for Non-Lead COPCS for the RME: Recreational Visitor....**PDF Page 637**

Table 5-76. Range of Non-Cancer and Cancer Risks from Incidental Ingestion of and Dermal Contact with Surface Water for Non-Lead COPCs for the CTE: Recreational Visitor....**PDF Page 638**

Table 5-77a. Non-Cancer and Cancer Risks from Inhalation of Outdoor Air for Non-Lead COPCs for the RME: Resident with and without Beach....**PDF Page 639**

Table 5-77b. Non-Cancer and Cancer Risks from Inhalation of Outdoor Air for Non-Lead COPCs for the CTE: Resident with and without Beach....**PDF Page 639**

Table 5-78a. Non-Cancer and Cancer Risks from Inhalation of Outdoor Air for Non-Lead COPCs for the RME: Outdoor Worker....**PDF Page 640**

Table 5-78b. Non-Cancer and Cancer Risks from Inhalation of Outdoor Air for Non-Lead COPCs for the CTE: Outdoor Worker....**PDF Page 640**

Table 5-79a. Non-Cancer and Cancer Risks from Inhalation of Outdoor Air for Non-Lead COPCs for the RME: Recreational Visitor....**PDF Page 641**

Table 5-79b. Non-Cancer and Cancer Risks from Inhalation of Outdoor Air for Non-Lead COPCs for the CTE: Recreational Visitor....**PDF Page 641**

Table 5-80a. Non-Cancer and Cancer Risks from Inhalation of Indoor Air for Non-Lead COPCs for the RME: Resident with and without Beach....**PDF Page 642**

Table 5-80b. Non-Cancer and Cancer Risks from Inhalation of Indoor Air for Non-Lead COPCs for the CTE: Resident with and without Beach....**PDF Page 642**

Table 5-81. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Resident (with or without Beach): Burbot Consumption....**PDF Page 643**

Table 5-82. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Resident (with or without Beach): Kokanee Consumption....**PDF Page 644**

Table 5-83. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Resident (with or without Beach): Northern Pike Consumption....**PDF Page 645**

Table 5-84. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Resident (with or without Beach): Rainbow Trout Consumption....**PDF Page 646**

Table 5-85. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Resident (with or without Beach): Smallmouth Bass Consumption....**PDF Page 646**

Table 5-86. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Resident (with or without Beach): White Sturgeon Consumption....**PDF Page 648**

Table 5-87. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Resident (with or without Beach): Sucker Consumption....**PDF Page 649**

Table 5-88. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Resident (with or without Beach): Walleye Consumption....**PDF Page 650**

Table 5-89. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Resident (with or without Beach): Whitefish Consumption....**PDF Page 651**

Table 5-90. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Resident (with or without Beach): Burbot Consumption....**PDF Page 652**

Table 5-91. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Resident (with or without Beach): Kokanee Consumption....**PDF Page 653**

Table 5-92. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Resident (with or without Beach): Norther Pike Consumption....**PDF Page 654**

Table 5-93. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Resident (with or without Beach): Rainbow Trout Consumption....**PDF Page 655**

Table 5-94. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Resident (with or without Beach): Smallmouth Bass Consumption....**PDF Page 656**

Table 5-95. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Resident (with or without Beach): White Sturgeon Consumption....**PDF Page 657**

Table 5-96. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Resident (with or without Beach): Sucker Consumption....**PDF Page 658**

Table 5-97. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Resident (with or without Beach): Walleye Consumption....**PDF Page 659**

Table 5-98. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Resident (with or without Beach): Whitefish Consumption....**PDF Page 660**

Table 5-99. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Recreational Visitor: Burbot Consumption....**PDF Page 661**

Table 5-100. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Recreational Visitor: Kokanee Consumption....**PDF Page 662**

Table 5-101. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Recreational Visitor: Northern Pike Consumption....**PDF Page 663**

Table 5-102. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Recreational Visitor: Rainbow Trout Consumption....**PDF Page 664**

Table 5-103. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Recreational Visitor: Smallmouth Bass Consumption....**PDF Page 665**

Table 5-104. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Recreational Visitor: White Sturgeon Consumption....**PDF Page 666**

Table 5-105. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Recreational Visitor: Sucker Consumption....**PDF Page 667**

Table 5-106. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Recreational Visitor: Walleye Consumption....**PDF Page 668**

Table 5-107. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the RME Recreational Visitor: Whitefish Consumption....**PDF Page 669**

Table 5-108. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Recreational Visitor: Burbot Consumption....**PDF Page 670**

Table 5-109. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Recreational Visitor: Kokanee Consumption....**PDF Page 671**

Table 5-110. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Recreational Visitor: Northern Pike Consumption....**PDF Page 672**

Table 5-111. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Recreational Visitor: Rainbow Trout Consumption....**PDF Page 673**

Table 5-112. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Recreational Visitor: Smallmouth Bass Consumption....**PDF Page 674**

Table 5-113. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Recreational Visitor: White Sturgeon Consumption....**PDF Page 675**

Table 5-114. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Recreational Visitor: Sucker Consumption....**PDF Page 676**

Table 5-115. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Recreational Visitor: Walleye Consumption....**PDF Page 677**

Table 5-116. Non-Cancer and Cancer Risks and Target Organ System Hazards for Non-Lead COPCs for the CTE Recreational Visitor: Whitefish Consumption....**PDF Page 678**

Table 5-117. Cancer Risks by DU for the Current Resident who Consumes Burbot....**PDF Page 679**

Table 5-118. Cancer Risks by DU for the Current Resident who Consumes Kokanee....**PDF Page 693**

Table 5-119. Cancer Risks by DU for the Current Resident who Consumes Northern Pike....**PDF Page 707**

Table 5-120. Cancer Risks by DU for the Current Resident who Consumes Rainbow Trout....**PDF Page 721**

Table 5-121. Cancer Risks by DU for the Current Resident who Consumes Smallmouth Bass....**PDF Page 735**

Table 5-122. Cancer Risks by DU for the Current Resident who Consumes White Sturgeon**PDF Page 749**

Table 5-123. Cancer Risks by DU for the Current Resident who Consumes Sucker....**PDF Page 763**

Table 5-124. Cancer Risks by DU for the Current Resident who Consumes Walleye....**PDF Page 777**

Table 5-125. Cancer Risks by DU for the Current Resident who Consumes Whitefish....**PDF Page 791**

Table 5-126. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 202....**PDF Page 805**

Table 5-127. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 800B....**PDF Page 806**

Table 5-128. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 204....**PDF Page 806**

Table 5-129. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 215B....**PDF Page 808**

Table 5-130. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 255....**PDF Page 809**

Table 5-131. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 195....**PDF Page 810**

Table 5-132. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU**PDF Page 811**

Table 5-133. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 224....**PDF Page 812**

Table 5-134. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 324....**PDF Page 813**

Table 5-135. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 226....**PDF Page 814**

Table 5-136. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 226A....**PDF Page 815**

Table 5-137. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 303....**PDF Page 816**

Table 5-138. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 173....**PDF Page 817**

Table 5-139. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 1000....**PDF Page 818**

Table 5-140. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 075-B1....**PDF Page 819**

Table 5-141. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 098-B1....**PDF Page 820**

Table 5-142. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 124-B1....**PDF Page 821**

Table 5-143. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 131-B1....**PDF Page 822**

Table 5-144. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 157-B1....**PDF Page 823**

Table 5-145. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 157-B2....**PDF Page 824**

Table 5-146. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Resident with Residential Beach DU 171-B1....**PDF Page 825**

Table 5-147. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 202....**PDF Page 826**

Table 5-148. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 800B....**PDF Page 827**

Table 5-149. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 204....**PDF Page 828**

Table 5-150. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 251B....**PDF Page 829**

Table 5-151. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 255....**PDF Page 830**

Table 5-152. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 195....**PDF Page 831**

Table 5-153. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 197....**PDF Page 832**

Table 5-154. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 224....**PDF Page 833**

Table 5-155. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 324....**PDF Page 834**

Table 5-156. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 226....**PDF Page 835**

Table 5-157. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 226A....**PDF Page 836**

Table 5-158. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 303....**PDF Page 837**

Table 5-159. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 173....**PDF Page 838**

Table 5-160. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 1000....**PDF Page 839**

- Table 5-161.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 075-B1....**PDF Page 840**
- Table 5-162.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 098-B1....**PDF Page 841**
- Table 5-163.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 124-B1....**PDF Page 842**
- Table 5-164.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 131-B1....**PDF Page 843**
- Table 5-165.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 157-B1....**PDF Page 844**
- Table 5-166.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 157-B2....**PDF Page 845**
- Table 5-167.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Resident with Residential Beach DU 171-B1....**PDF Page 846**
- Table 5-168.** Cancer Risks by ADA for the Future Resident who Consumes Burbot....**PDF Page 847**
- Table 5-169** Cancer Risks by ADA for the Future Resident who Consumes Kokanee....**PDF Page 851**
- Table 5-170.** Cancer Risks by ADA for the Future Resident who Consumes Northern Pike....**PDF Page 855**
- Table 5-171.** Cancer Risks by ADA for the Future Resident who Consumes Trout....**PDF Page 859**
- Table 5-172.** Cancer Risks by ADA for the Future Resident who Consumes SmallmouthBass**PDF Page 863**
- Table 5-173.** Cancer Risks by ADA for the Future Resident who Consumes White Sturgeon**PDF Page 867**
- Table 5-174.** Cancer Risks by ADA for the Future Resident who Consumes Sucker....**PDF Page 871**
- Table 5-175.** Cancer Risks by ADA for the Future Resident who Consumes Walleye....**PDF Page 874**
- Table 5-176.** Cancer Risks by ADA for the Future Resident who Consumes Whitefish....**PDF Page 879**
- Table 5-177.** Non-Cancer Target Organ System Hazards and Cancer Risk for Non-Lead COPCs forthe RME: Outdoor Worker....**PDF Page 883**
- Table 5-178.** Non-Cancer Target Organ System Hazards and Cancer Risk for Non-Lead COPCs for the CTE: Outdoor Worker....**PDF Page 885**

- Table 5-179.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at AA Campground....**PDF Page 887**
- Table 5-180.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Barnaby Island Campground....**PDF Page 888**
- Table 5-181.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Black Sand Beach....**PDF Page 889**
- Table 5-182.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat-2011/2013....**PDF Page 890**
- Table 5-183.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bradbury....**PDF Page 891**
- Table 5-184.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at China Bend....**PDF Page 892**
- Table 5-185.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Colville Flats....**PDF Page 893**
- Table 5-186.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Colville River....**PDF Page 894**
- Table 5-187.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Crescent Bay....**PDF Page 895**
- Table 5-188.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Dalles Orchard....**PDF Page 896**
- Table 5-189.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Enterprise....**PDF Page 897**
- Table 5-190.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Evans Campground-2011/2013....**PDF Page 898**
- Table 5-191.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Flat Creek....**PDF Page 899**
- Table 5-192.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Hawk Creek....**PDF Page 900**
- Table 5-193.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Hunters....**PDF Page 901**
- Table 5-194.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at James Bay....**PDF Page 902**
- Table 5-195.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Kamloops Island....**PDF Page 903**
- Table 5-196.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Kettle Falls....**PDF Page 904**

- Table 5-197.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Lyons Island....**PDF Page 905**
- Table 5-198.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at McGuires....**PDF Page 906**
- Table 5-199.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Mitchell Point....**PDF Page 907**
- Table 5-200.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Recreational Visitor at Naborlee....**PDF Page 908**
- Table 5-201.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Nez Perce....**PDF Page 909**
- Table 5-202.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Northport Beach....**PDF Page 910**
- Table 5-203.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Upper Columbia R. V. Park....**PDF Page 911**
- Table 5-204.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Seven Bays....**PDF Page 912**
- Table 5-205.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Spring Canyon....**PDF Page 913**
- Table 5-206.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Summer Island....**PDF Page 914**
- Table 5-207.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Swawilla Basin....**PDF Page 915**
- Table 5-208.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Swimming Hole....**PDF Page 916**
- Table 5-209.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Welty Bay....**PDF Page 917**
- Table 5-210.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Whitestone Campground....**PDF Page 918**
- Table 5-211.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Wilmont Creek....**PDF Page 919**
- Table 5-212.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat – 2015 - SDU-01....**PDF Page 920**
- Table 5-213.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat – 2015 - SDU-02....**PDF Page 921**

Table 5-214. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat – 2015 - SDU-03....**PDF Page 922**

Table 5-215. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat – 2015 - SDU-04....**PDF Page 923**

Table 5-216. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat – 2015 - SDU-08....**PDF Page 924**

Table 5-217. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat – 2015 - SDU-09....**PDF Page 925**

Table 5-218. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat – 2015 - SDU-10....**PDF Page 926**

Table 5-219. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Evans Campground – 2015 - SDU-05....**PDF Page 927**

Table 5-220. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Evans Campground – 2015 - SDU-06....**PDF Page 928**

Table 5-221. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Evans Campground – 2015 - SDU-07....**PDF Page 929**

Table 5-222. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFA-001....**PDF Page 930**

Table 5-223. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain FRA-002....**PDF Page 931**

Table 5-224. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFA-003....**PDF Page 932**

Table 5-225. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFA-004....**PDF Page 933**

Table 5-226. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFA-005....**PDF Page 934**

Table 5-227. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFB-002....**PDF Page 935**

Table 5-228. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFB-003....**PDF Page 936**

Table 5-229. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFB-008....**PDF Page 937**

Table 5-230. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFC-003....**PDF Page 938**

Table 5-231. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFC-004....**PDF Page 939**

Table 5-232. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFC-005....**PDF Page 940**

Table 5-233. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFC-006....**PDF Page 941**

Table 5-234. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFC-007....**PDF Page 942**

Table 5-235. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFC-008....**PDF Page 943**

Table 5-236. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFD-002....**PDF Page 944**

Table 5-237. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Relict Floodplain RFD-003....**PDF Page 945**

Table 5-238. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat - 2015 - UDU-01....**PDF Page 946**

Table 5-239. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat - 2015 - UDU-02....**PDF Page 947**

Table 5-240. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat - 2015 - UDU-03....**PDF Page 948**

Table 5-241. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat - 2015 - UDU-04....**PDF Page 949**

Table 5-242. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat - 2015 - UDU-05....**PDF Page 950**

Table 5-243. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the RME: Recreational Visitor at Bossburg Flat - 2015 - UDU-06....**PDF Page 951**

Table 5-244. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at AA Campground....**PDF Page 952**

- Table 5-245.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at AA Barnaby Island Campground....**PDF Page 953**
- Table 5-246.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Black Sand Beach....**PDF Page 954**
- Table 5-247.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2011/2013....**PDF Page 955**
- Table 5-248.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Bradbury....**PDF Page 956**
- Table 5-249.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at China Bend....**PDF Page 957**
- Table 5-250.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Colville Flats....**PDF Page 958**
- Table 5-251.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Colville River....**PDF Page 959**
- Table 5-252.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Crescent Bay....**PDF Page 960**
- Table 5-253.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Dalles Orchard....**PDF Page 961**
- Table 5-254.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Enterprise....**PDF Page 962**
- Table 5-255.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Evans Campground-2011/2013....**PDF Page 963**
- Table 5-256.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Flat Creek....**PDF Page 964**
- Table 5-257.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Hawk Creek....**PDF Page 965**
- Table 5-258.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Hunters....**PDF Page 966**
- Table 5-259.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Jones Bay....**PDF Page 967**
- Table 5-260.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Kamloops Island....**PDF Page 968**
- Table 5-261.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Kettle Falls....**PDF Page 969**
- Table 5-262.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Lyons Island....**PDF Page 970**

- Table 5-263.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at McGuires....**PDF Page 971**
- Table 5-264.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Mitchell Point....**PDF Page 972**
- Table 5-265.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Naborlee....**PDF Page 973**
- Table 5-266.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Nez Perce....**PDF Page 974**
- Table 5-267.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Northport Beach....**PDF Page 975**
- Table 5-268.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Upper Columbia R.V. Park....**PDF Page 976**
- Table 5-269.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Seven Bays....**PDF Page 977**
- Table 5-270.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Spring Canyon....**PDF Page 978**
- Table 5-271.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Summer Island....**PDF Page 979**
- Table 5-272.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Swawilla Basin....**PDF Page 980**
- Table 5-273.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Swimming Hole....**PDF Page 981**
- Table 5-274.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Welty Bay....**PDF Page 982**
- Table 5-275.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-Lead COPCs for the CTE: Recreational Visitor at Whitestone Campground....**PDF Page 983**
- Table 5-276.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Wilmont Creek....**PDF Page 984**
- Table 5-277.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-SDU-01....**PDF Page 985**
- Table 5-278.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-SDU-02....**PDF Page 986**
- Table 5-279.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-SDU-03....**PDF Page 987**
- Table 5-280.** Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-SDU-04....**PDF Page 988**

Table 5-281. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-SDU-08....**PDF Page 989**

Table 5-282. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-SDU-09....**PDF Page 990**

Table 5-283. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-SDU-10....**PDF Page 991**

Table 5-284. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Evans Campground-2015-SDU-05....**PDF Page 992**

Table 5-285. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Evans Campground-2015-SDU-06....**PDF Page 993**

Table 5-286. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Evans Campground-2015-SDU-07....**PDF Page 994**

Table 5-287. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFA-001....**PDF Page 995**

Table 5-288. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFA-002....**PDF Page 996**

Table 5-289. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFA-003....**PDF Page 997**

Table 5-290. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFA-004....**PDF Page 998**

Table 5-291. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFA-005....**PDF Page 999**

Table 5-292. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFB-002....**PDF Page 1000**

Table 5-293. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFB-003....**PDF Page 1001**

Table 5-294. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFB-008....**PDF Page 1002**

Table 5-295. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFC-003....**PDF Page 1003**

Table 5-296. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFC-004....**PDF Page 1004**

Table 5-297. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFC-005....**PDF Page 1005**

Table 5-298. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFC-006....**PDF Page 1006**

Table 5-299. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFC-007....**PDF Page 1007**

Table 5-300. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFC-008....**PDF Page 1008**

Table 5-301. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFD-002....**PDF Page 1009**

Table 5-302. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Relict Floodplain RFD-003....**PDF Page 1010**

Table 5-303. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-UDU-01....**PDF Page 1011**

Table 5-304. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-UDU-02....**PDF Page 1012**

Table 5-305. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-UDU-03....**PDF Page 1013**

Table 5-306. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-UDU-04....**PDF Page 1014**

Table 5-307. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flat-2015-UDU-05....**PDF Page 1015**

Table 5-308. Cancer Risk and Non-Cancer Target Organ System Hazards for Non-lead COPCs for the CTE: Recreational Visitor at Bossburg Flats-2015-UDU-06....**PDF Page 1016**

Table 6-1. Precision of Estimates of the Mean Soil Lead Concentration Based on ADAs and DUs have 3 Samples Each....**PDF Page 1017**

Table 6-2. Summary of Residential Beach Lead Risk at P5 for Various Species without and with Incidental Ingestion of UCR Surface Water while Swimming....**PDF Page 1018**

Table 6-3. Approximate Soil Lead PRGs Derived for Residential Land Use (Based on the IEUBK Model) versus Non-Residential Land Use (Based on the ALM2)....**PDF Page 1019**

Table 6-4. Child Lead Risks Corresponding to Non-Residential Soil Lead PRGs....**PDF Page 1020**

Table 6-5. IVBA Measured in Soil as part of the 2014 Upland Soils Study....**PDF Page 1021**

Table 6-6. Estimated Air Concentrations at the U.S.- Canada Border based on Columbia Gardens Data....**PDF Page 1022**

Table 6-7. Impact of the Increased Air Lead Concentration on Estimated Lead Risk to Current and Potential Future Child Residential Populations....**PDF Page 1023**

Table 6-8. Comparison of Air EPCs used in the HHRA to EPA Screening Values....**PDF Page 1024**

- Table 6-9.** Lowest and Highest COPC Concentrations Measured in Fish....**PDF Page 1025**
- Table 6-10.** Recommended Dietary Allowances and Reference Doses for Iron, Manganese, and Cobalt....**PDF Page 1026**
- Table 6-11.** Thallium in Sediment, Surface Water, and Fish from the UCR. Sampling Results by Reach....**PDF Page 1027**
- Table 6-12.** Background Estimates of COPCs for the UCR Site-wide HHRA....**PDF Page 1028**
- Table 7-1.** Summary of Residential Soil Exposure Areas that Exceed Risk Benchmarks for the Current Residential Child Population (Excluding Residential Beaches) when Risks are Summed Across Pathways....**PDF Page 1029**
- Table 7-2.** Summary of Residential Beach Exposure Areas that Exceeded Risk Benchmarks for Both Lead and Non-Lead COPCs for the Current Residential (Beach DUs) Child Population, not Including Fish Consumption....**PDF Page 1031**
- Table 7-3.** Summary of the Upland Aerial Deposition Areas that Exceed Risk Benchmarks for the Future Residential Child Population when Risks are Summed Across Pathways....**PDF Page 1032**
- Table 7-4.** Summary of Residential Lead Results, not Including Fish Consumption....**PDF Page 1034**
- Figure ES-1.** Current Child Residential Exposure to Lead and Non-Lead COPCs in Soil....**PDF Page 1036**
- Figure ES-2.** Future Child Residential Exposure to Lead and Non-Lead COPCs in Soil....**PDF Page 1037**
- Figure 2-1.** Site Location and River Reach Delineations (SRC, 2009)....**PDF Page 1038**
- Figure 2-2.** Geological Regions of Washington State....**PDF Page 1039**
- Figure 2-3.** NPS Recreational Facilities, Upper Columbia River, WA (LRF, 2019)....**PDF Page 1040**
- Figure 2-4.** 2009/2010 UCR Surface Water Sampling Locations....**PDF Page 1041**
- Figure 2-5.** Beaches Sampled in the UCR in 2009-2011....**PDF Page 1042**
- Figure 2-6.** Sampling Locations in the Bossburg Flat Beach Area (TAI, 2016a)....**PDF Page 1043**
- Figure 2-7.** Sampling Locations in the Evans Campground Beach Area (TAI, 2016a)....**PDF Page 1044**
- Figure 2-8.** Sampling Areas, 2014 Upland Soil Study....**PDF Page 1045**
- Figure 2-9.** Relict Floodplains Sampled in 2014....**PDF Page 1046**
- Figure 2-10.** Sampling Areas, 2014 Residential Soil Study....**PDF Page 1047**
- Figure 2-11.** Sampling Areas, 2016 Residential Soil Study....**PDF Page 1048**

Figure 2-12. Outdoor Air Monitoring Station, Sheep Creek, Washington....**PDF Page 1049**

Figure 2-13. Trail Air Emissions: 2002 to 2017....**PDF Page 1050**

Figure 2-14. Sampling Areas, 2005 and 2009 Fish Tissue Studies...**PDF Page 1051**

Figure 2-15. UCR Reaches Sampled for Hatchery White Sturgeon in 2016 (Windward, 2017a)....**PDF Page 1052**

Figure 2-16. Northern Pike Sample Locations (TAI, 2018)....**PDF Page 1053**

Figure 2-17. Sampling Areas, 2016 Macroinvertebrate Study (TAI, 2017c)....**PDF Page 1054**

Figure 2-18. Locations of Wild/Cultural Plant Sampling Areas (TAI, 2019a)....**PDF Page 1055**

Figure 3-1. Quantitative Conceptual Site Model for the UCR Human Health Risk Assessment....**PDF Page 1056**

Figure 3-2. Residential Beaches Sampled as Part of the 2014 Residential Soil Study...**PDF Page 1057**

Figure 3-3. Residential Beaches Sampled as Part of the 2016 Residential Soil Study...**PDF Page 1058**

Figure 3-4. Regions of Lake Roosevelt....**PDF Page 1059**

Figure 5-1. Residential Soil DUs where Lead Risk Exceeds P3, Not Including Fish Consumption....**PDF Page 1060**

Figure 5-2. Residential Soil DUs where Lead Risk Exceeds P5, Not Including Fish Consumption....**PDF Page 1061**

Figure 5-3. Residential Soil DUs where Lead Exceeds P8, Not Including Fish Consumption....**PDF Page 1062**

Figure 5-4. Upland Soil ADAs Where Lead Risk Exceeds P3, Not Including Fish Consumption....**PDF Page 1063**

Figure 5-5. Upland Soil ADAs Where Lead Risks Exceeds P5, Not Including Fish Consumption....**PDF Page 1064**

Figure 5-6. Upland Soil ADAs Where Lead Risk Exceeds P8, Not Including Fish Consumption....**PDF Page 1065**

Figure 5-7. Residential Beach Exposure to Lead, not Including Fish Consumption....**PDF Page 1066**

Figure 5-8. Public Beach Exposure to Lead, not Including Fish Consumption....**PDF Page 1067**

Figure 5-9. Non-Cancer Target Organ HIs>1: RME Current Child Residential Exposure to Non-Lead COPCs in Soil....**PDF Page 1068**

Figure 5-10. Non-Cancer TARGET Organ HIs>1: RME Future Child Residential Exposure to Non-Lead COPCs in Soil....**PDF Page 1069**

Figure 5-11. Non-Cancer Target Organ HIs>1 for the RME Current Adult Resident Population....**PDF Page 1070**

Figure 5-12. Non-Cancer Target Organ HIs>1 for the RME Current Child Resident Population that Consumes Burbot....**PDF Page 1071**

Figure 5-13. Non-Cancer Target Organ HIs>1 for the RME Current Child Resident Population that Consumes Kokanee....**PDF Page 1072**

Figure 5-14. Non-Cancer Target Organ HIs>1 for the RME Current Child Resident Population that Consumes Rainbow Trout....**PDF Page 1073**

Figure 5-15. Non-Cancer Target Organ HIs>1 for the RME Current Child Resident Population that Consumes White Sturgeon....**PDF Page 1074**

Figure 5-16. Non-Cancer Target Organ HIs>1 for the RME Current Child Resident Population that Consumes Sucker....**PDF Page 1075**

Figure 5-17. Non-Cancer Target Organ HIs>1 for the RME Current Child Resident Population that Consumes Walley....**PDF Page 1076**

Figure 5-18. Non-Cancer Target Organ HIs>1 for the RME Current Child Resident Population....**PDF Page 1077**

Figure 5-19. Non-Cancer Target Organ HIs>1 for the RME Future Child Resident Population that Consumes Burbot....**PDF Page 1078**

Figure 5-20. Non-Cancer Target Organ HIs>1 for the RME Future Child Resident Population that Consumes Kokanee....**PDF Page 1079**

Figure 5-21. Non-Cancer Target Organ HIs>1 for the RME Future Child Resident Population that Consumes White Sturgeon....**PDF Page 1080**

Figure 5-22. Non-Cancer Target Organ HIs>1 for the RME Future Child Resident Population that Consumes Walley....**PDF Page 1081**

Figure 5-23. Non-Cancer Target Organ HIs>1 for the CTE Future Child Resident Population....**PDF Page 1082**

Figure 6-1. Stream Sediment and Soil Samples Collected by NURE in the Columbia River Drainage Basin....**PDF Page 1083**

Figure 6-2. Comparison of Lead Concentrations Measured in Site Residential Soil to Lead Risk Benchmarks and Estimated Background used in this HHRA....**PDF Page 1084**

Figure 6-3. Comparison of Arsenic Concentrations Measured in Site Residential Soil to Site-specific Background Data....**PDF Page 1085**

Figure 6-4. Comparison of Cobalt Concentrations Measured in Site Residential Soil to Site-specific Background Data....**PDF Page 1086**

Figure 6-5. Comparison of Iron Concentrations Measured in Site Residential Soil to Site-specific Background Data....**PDF Page 1087**

Figure 6-6. Comparison of Manganese Concentrations Measured in Site Residential Soil to Site-specific Background Data....**PDF Page 1088**

Figure 6-7. Comparison of Thallium Concentrations Measured in Site Residential Soil to Site-specific Background Data....**PDF Page 1089**

Figure 6-8. Comparison of Lead Concentrations Measured in Agricultural Soil DUs to Lead Risk Benchmarks and Estimated Background used in the HHRA....**PDF Page 1090**

Figure 6-9. Comparison of Lead Concentrations Measured in Animal Activity Area Soil DUs to Lead Risk Benchmarks and Estimated Background used in this HHRA....**PDF Page 1091**

Figure 6-10. Comparison of Lead Concentrations Measured in Garden Soil DUs to Lead Risk Benchmarks and Estimated Background used in this HHRA....**PDF Page 1092**

Figure 6-11. Comparison of Lead Concentrations Measured in House Soil DUs to Lead Risk Benchmarks and Estimated Background used in this HHRA....**PDF Page 1093**

Figure 6-12. Comparison of Lead Concentrations Measured in Other Not Specified Soil DUs to Lead Risk Benchmarks and Estimated Background used in this HHRA....**PDF Page 1094**

Figure 6-13. Comparison of Lead Concentrations Measured in Play Area Soil DUs to Lead Risk Benchmarks and Estimated Background used in this HHRA....**PDF Page 1095**

Figure 6-14. Comparison of Lead Concentrations Measured in the Upland Soil ADAs to Lead Risk Benchmarks and Estimated Background used in this HHRA....**PDF Page 1096**

Figure 6-15. Comparison of Arsenic Concentrations Measured in Upland Soil to Site-specific Background Data....**PDF Page 1097**

Figure 6-16. Comparison of Cobalt Concentrations Measured in Upland Soil to Site-specific Background Data....**PDF Page 1098**

Figure 6-17. Comparison of Iron Concentrations Measured in Upland Soil to Site-specific Background Data....**PDF Page 1099**

Figure 6-18. Comparison of Manganese Concentrations Measured in Upland Soil to Site-specific Background Data....**PDF Page 1100**

Figure 6-19. Comparison of Thallium Concentrations Measured in Upland Soil to Site-specific Background Data....**PDF Page 1101**