HUMAN HEALTH RISK ASSESSMENT APPROACH FOR OU1

1078017

Former Export Plant – 17 acres

- 12-acres Former Export Plant Facility - stockpiling, staging, and distributing vermiculite
- Current Use – Park, Boat Launch, Search & Rescue Bldg.
- Future Use – Recreational Park and existing uses

BASIC OPTIONS

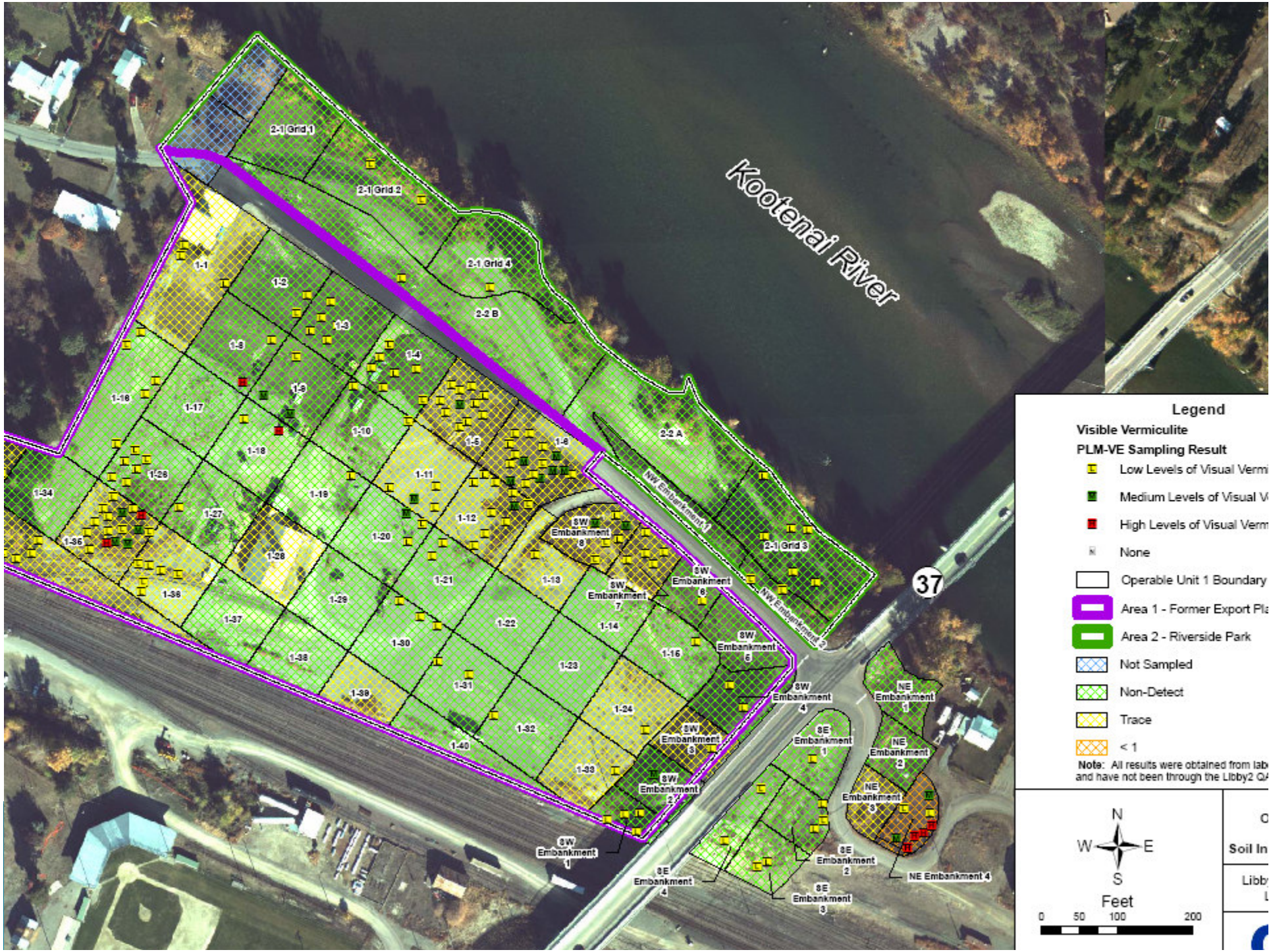
- Quantitative
  - Concerns related to precedence for OU4
  - Uncertainty related to exposure data, risk model
- Qualitative
  - Less risky
  - Based on subsurface contamination
  - NCP requires quantitative?
- Decision
  - Do both
  - Emphasize strengths and weakness of each approach

Quantitative Section

- Receptors
  - Rescue workers – completed questionnaire (N = 18)
  - Fishing guides – completed questionnaire (N = 8)
  - Park visitors
  - Park maintenance worker – completed questionnaire (N = 1)
- Pathways
  - Inhalation of indoor air (rescue workers only)
  - Inhalation of ambient air (all)
  - Inhalation of air above soil disturbances (all)

Exposure Calculations

- Compute Visual Score for OU1
- Compute C (airborne fiber concentrations)
- Duration & Frequency of exposure


Kootenai River
2-1 Grid 1
2-1 Grid 2
2-1 Grid 3
2-1 Grid 4
2-2 A
2-2 B
1-1
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1-40
SW Embankment 1
SW Embankment 2
SW Embankment 3
SW Embankment 4
SW Embankment 5
SW Embankment 6
SW Embankment 7
SW Embankment 8
SE Embankment 1
SE Embankment 2
SE Embankment 3
SE Embankment 4
NE Embankment 1
NE Embankment 2
NE Embankment 3
NE Embankment 4
NW Embankment 1
NW Embankment 2
37
Legend
Visible Vermiculite
PLM-VE Sampling Result
Low Levels of Visual Vermi
Medium Levels of Visual V
High Levels of Visual Verm
None
Operable Unit 1 Boundary
Area 1 - Former Export Pla
Area 2 - Riverside Park
Not Sampled
Non-Detect
Trace
< 1
Note: All results were obtained from lab
and have not been through the Libby2 QA
N
W
E
S
Feet
0
50
100
200
Soil In
Libby

ACE

QUALITATIVE SECTION

- Present information that supports concern over buried vermiculite
  - Historical information (Amandus et el.)
  - Anecdotal information
  - Observations during remediation activities to date
  - Recent experience with water pipe installation
- Describe how residual buried wastes could be a concern for future release or re-contamination

SCHEDULE

- Draft RA is currently undergoing scientific review (statistics, toxicology, modeling);
- After this initial review, the RA will be distributed more broadly for additional review;
- Revised draft due by xxx
- Final due by yyy

FAQs

- Q: How can you do a RA for OU1 and not for OU4 ?
- A: The RA for OU1 was done because of the plans to develop the park. Otherwise, it would have been delayed until current issues are resolved. A similar time-critical need does not exist for a RA at OU4.