Attachment H: General overview of the step-wise* method for compiling and customizing a site survey and examples.

- **H1. Step-Wise Method**
- **H2. Site Scenario and Sample Surveys**

H1. Step-Wise Method

Step 1. The site comes to the Agency's or cooperative agreement partner's attention (e.g., site is put on EPA's NPL list, petition by community member or politician, etc.).

Step 2. The Agency or partner initiates review of existing available data and information to determine the site contaminants, media, and exposure pathways that may result in exposure or risk.

Step 3. The site is prioritized for administering survey based on the following criteria:

a. Possible hazard category determined from information review in Step 2

OR

Site has been determined by ATSDR to be a Category I (urgent public health hazard) or Category II (public health hazard).

b. Type of intervention outcome expected (e.g., behavior change, reduction in stress, change in knowledge, skills, beliefs, etc.).
c. Level of community concern.
d. Resources available.

If the Agency or partner rates a site as "high", agency/partner will likely, resources permitting, implement a site survey. All Category I and II sites with an expected behavioral outcome will likely, resources permitting, implement a site survey.

Step 4. Health education and health promotion interventions to reduce or limit exposure to the contaminants of concern and address community concerns are developed for the site.

Step 5. The site-specific evaluation instrument is developed tailored to 1) the health education and health promotion intervention(s) and 2) the method of administration (e.g., face-to-face household survey, community meeting, telephone household survey):

a. Select CEEPM module (Attachment F3).
b. Review statement items to ensure coverage for the intervention. Exclude unnecessary items.
c. Merge items with appropriate response format as described in Attachment F2.
d. Select additional modules if needed for site evaluation (Attachment G).
e. Construct final surveys; see next section of this attachment for samples of face-to-face and self-administered customized survey. Sample cover letters and sample interviewer scripts are found in Attachment L and Attachment M).

Step 6. Conduct pre-test.

Step 7. Deliver education intervention(s).

Step 8. Conduct post-test.

Step 9. Data analysis and feedback for program evaluation.

*When the agency or partners are already involved in a site, some steps may not be necessary (e.g., where a public health assessment or consult has already determined the hazard category and implemented an intervention).

H2. Sample Surveys

Scenario: Anywhere Community

Community Information

You won't hear John Smith or many others along First Street call the mining waste towering 30 stories above their homes a neighborhood eyesore, a wind-swept legacy of the community's bygone days of keeping the nation supplied with lead.

Smith and others in this tiny community consider the massive, sandy-colored mound -- coarse waste from the milling process decades ago -- an old friend.

Never mind that many of their back yards abut the gritty heap, or the concerns that dust from such waste known as chat could cause health problems or taint local waterways with heavy metals.

As federal environmentalists now press for a lead-producing giant to clean up the massive piles here and in nearby towns, folks along First Street -- the people perhaps most directly affected by the waste, given their proximity to it -- are waxing nostalgic about living in the heap's shadow.

Let it be, they say.

"We'd be lost without it," insists Smith, so enamored with the chat "dump" dominating the view from his breakfast nook in the back of his home that he's got a sign there reading, "Smith's 'Dump' Side Cafe."

If the Environmental Protection Agency gets its way, Smith may have to rename the eating spot.

EPA authorities say wind blows the loose chat airborne, at times carrying lead and zinc contamination to adjacent properties. Around this 8,000-resident town the EPA says wind and storm-water runoff has tainted the Flat River, prompting state-issued warnings about consuming fish from the waterway because of elevated lead levels found in several species.

Studies by various agencies -- from local health departments to the EPA and federal Agency for Toxic Substances and Disease Registry -- over at least the past decade have shown high lead levels in children in some towns in the region. Such elevated levels of exposure in young children can slow their growth, lower IQ and cause behavioral problems.

Citing the contamination, the EPA in March ordered Company X -- the nation's leading lead producer -- to clean up the area's chat piles by re-grading them, then covering them with rock and soil. The agency also ordered air monitoring and surface-runoff sampling.

In recent years, Company X has been whittling down a handful of mountainous piles of lead waste inherited from its predecessor. In Anywhere Community's case, a public hearing is expected this summer on the EPA's recommendation that the huge mound be knocked down, stabilized and covered with rock.

Company X has voiced eagerness to get the matter remedied.

"Realistically, we're probably leaning toward the spring of next year before any construction starts." But "there is going to be something done with it; it is not going to go by the wayside."

Despite the stumping along First Street for the status quo, Robert Jones is among those who can't wait to get the mountain remediated, if only to protect the health interests of children.

"Whether people want it or not is irrelevant; the EPA has said something has to be done," said Jones, the former head of the now-disbanded Anywhere Community Mine Waste Coalition. "The pile has to be remediated -- no ifs, ands or buts about it."

But to many along First Street, the heap helping define the landscape symbolizes richer days when the mining industry employed some 5,000, only to shut down the last mine around here in 1972 and move south to another lead vein around Another Community.

Residents often sledded or used the mound as their childhood playgrounds long ago. Many let their children and grandkids trudge up it now. Tracks from motorized dirt bikes and four-wheelers are visible in the mound.

The community has spread the tailings on icy streets, at times using it in driveways, foundations, sand boxes and gardens. For years, the Lion's Club stuck a Christmas tree up there, even lighting it by stretching electrical cord all the way up.

Down the street, 25-year-old Tom Black smokes a cigarette outside the house he bought just last year -- free of worries about the chat pile or its possibly hazardous exposure to his children, ages 4 and 3. The kids have been tested for lead exposure, he insists, and they're just fine.

Nearby, Jane Lee, an asthmatic, has learned to live with the dust.

"Here I am 76 years old and I've been raised with this chat dump. I've lived a good life ... It hasn't killed me yet," he said. "I'd just as soon it stay."

Having lived in Anywhere Community the past seven years, Jones, 52, can understand the sentiment but notes that the heap may be blunting the town's growth by discouraging would-be residents.

"Do I want to keep the heritage? Yes," he said. "Sure, people come off the highway to look at these things. I might want to go look at Love Canal, too, but I'm not going to live there." (Based on an article in the New York Times, June 11, 2005 – Person and place names changed)

Site Issues

1. Contaminants of concern: Lead and zinc.
2. Remediation of chat piles is planned but may not happen for possibly one year or more.
3. Not everyone in the community thinks there is a problem with the chat piles.
4. There is anecdotal evidence that children are playing on the chat piles and that people are riding ATVs on the site.
6. It appears that the wind is blowing the loose chat airborne carrying lead and zinc contamination to adjacent properties and possibly impacting local waterways.
7. According to the EPA, wind and storm-water runoff has tainted the local river, prompting state-issued warnings about consuming fish from the waterway because of elevated lead levels found in several species.

Health Education and Health Promotion Intervention Activities to Mitigate Exposure and Address Community Concerns

1. Provide information (via fact sheets, brochures, news media, community meetings, etc.) to local residents to increase their knowledge of the potential health effects of lead exposure on children.
2. Provide information about actions the local residents can do for themselves, their children and within their homes to reduce potential exposure to lead (e.g., use containers or raised beds for gardening; vacuum or wet mop floors once a week, etc.).
3. Put up fencing around the site to keep children from playing on the chat piles.
4. Put up fencing and warning signs to keep local residents from riding ATVs on the site.
5. Post fish advisory signs along the river and lake fronts.

CEEPM Modules

1. Select the contaminant category – Metals.
2. From within the contaminant category, select the modules for the media and pathway specific to the site – media are air, soil, water, and biota; pathways are inhalation, dermal, and oral.
3. However, not all questions are relevant to the planned health education and health promotion intervention activities suggested above (e.g., those related to work place). Thus, a subset of the metals questions will be selected for the final survey.

Other Modules selected based on Health Education and Health Promotion Intervention Activities

1. Knowledge and Beliefs
2. Intention to Change
3. Demographics