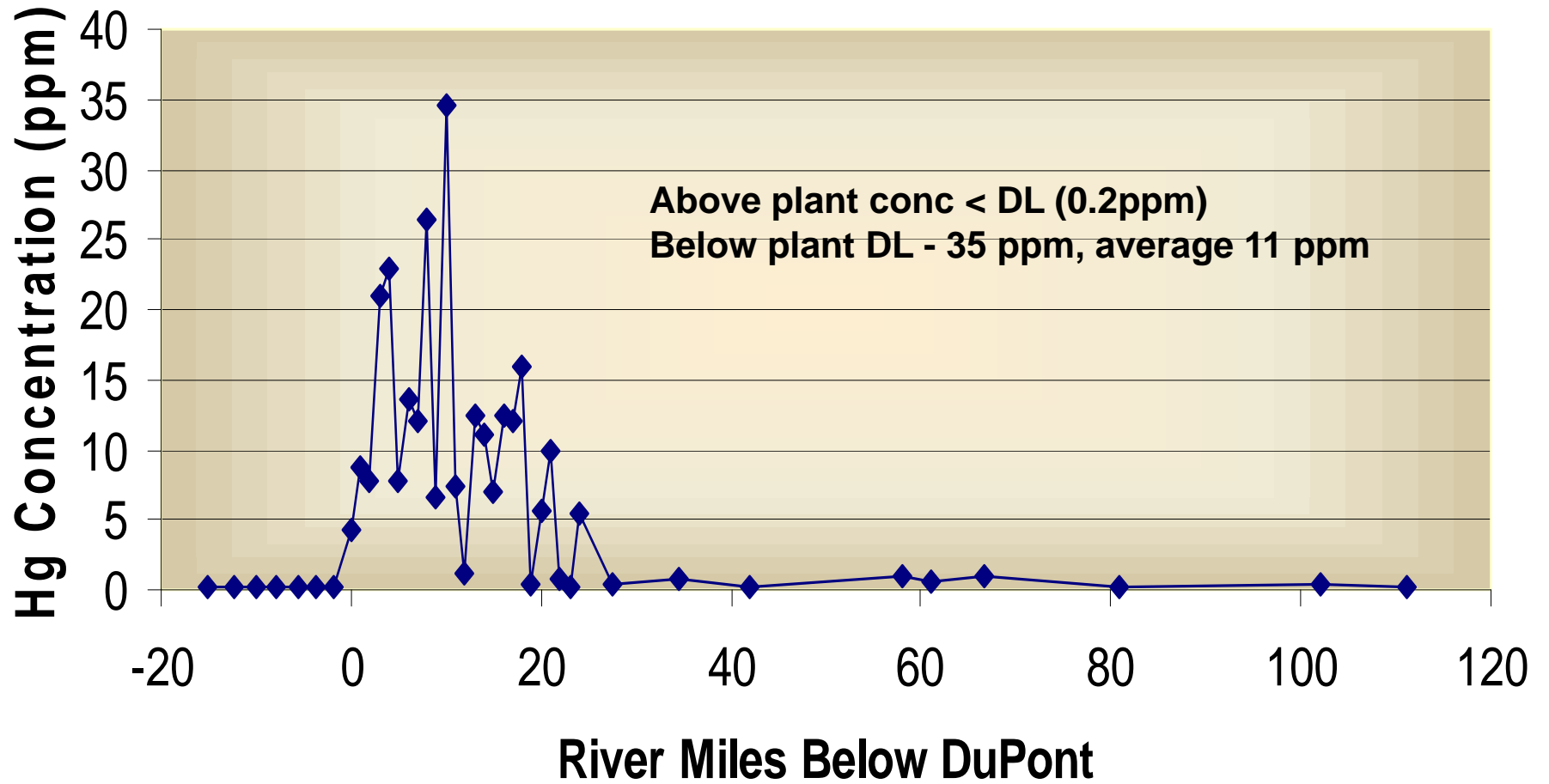




Floodplain Assessment

April 14, 2004

Hg Concentration in Floodplain Soils Summer 1980



Phased Approach

Phase 1: Spring 2003

- Objectives

- Gather data to test whether mercury in the floodplain soils is available at levels that could present a health risk from vegetable ingestion
- Gather data to determine role of floodplain soils as a potential “source”

- Strategy

- Leverage both but focus on “crop study” this spring
- Sampling for “source” objective will be optimized based on the results of other sampling currently planned, e.g., sediment, storm/tributary study.

- Status

- Soils at the Augusta Forestry Station sampled
- Results provided as part of the Crop Study

Phased Approach (cont.)

Phase 2: Spring 2004

The objectives of the sampling will be

1. To determine general "representative" levels of mercury in floodplain soils relative to data currently available and
2. To leverage this activity with data gathering for helping to refine the conceptual site model including potentially defining continuing sources.

How Many Sites/Reps?

- To obtain information comparable to previous studies, statistics suggested sampling at 15 locations
- At each location, “sites” could be defined by (a) river mile, (b) distance from bank, (c) vegetation, (d) other features
- 5 reps per sampling site will provide enough accuracy for general indication of trends.

Preliminary Scope (Oct 2003)

- Approximately 15 locations along the South River from Waynesboro to the confluence in Port Republic.
- Maximum of 6 "sites" at each location will be sampled.
 - Typically three "sites" on either bank (as appropriate, i.e., based on available distance from the bank and accessibility) will be attempted.
 - Maximum anticipated distance from the bank will be about 150 feet.

Preliminary Scope (cont.)

- Typically, at each site a series of replicates will be composited to a single sample
- Hand auger equipment will be used.
- The majority of the samples will be taken as surface samples (0-24")
- Analysis for total mercury

Preliminary Scope (cont.)

In one or 2 locations, a more comprehensive sample design (similar to the sample plan at the Forestry Station) will be employed.

- Individual rather than composite samples will be taken.
- Samples will also be taken at depth to evaluate potential concentration changes with depth.

Phase 2: Status

- Reconnaissance 04/06/05
- Identified 15 locations
 - 3 locations (Constitution Park, Credit Union, Forestry Station) has recent data
 - 12 locations slated for next round
- Total of 92 additional sites identified
- Total of about 215 additional samples
 - 65 composites
 - 150 individual
- Sampling planned for mid to late May



Possible Sites 0404