AGRICULTURAL LAND USE LOADING RATES LITERATURE REVIEW

Agricultural Workgroup

October 22, 2014

Steve Dressing, Tetra Tech Inc.

OUTLINE

- Purpose
- Searches Performed
- Literature Retrieved
- Additional Needs
- Schedule

PURPOSE

- Perform a literature review and synthesis to summarize nitrogen, phosphorus, and sediment loads for agricultural land uses to use in developing loading rate **targets** for calibration of the Chesapeake Bay Watershed Model
- **Targets** are specified loading rates used to calibrate the Phase 6 Watershed Model
  - Does not include BMPs
  - Show relative differences among land use loading rates
  - Subject to modification through calibration. Actual rate adjusted; relative differences maintained

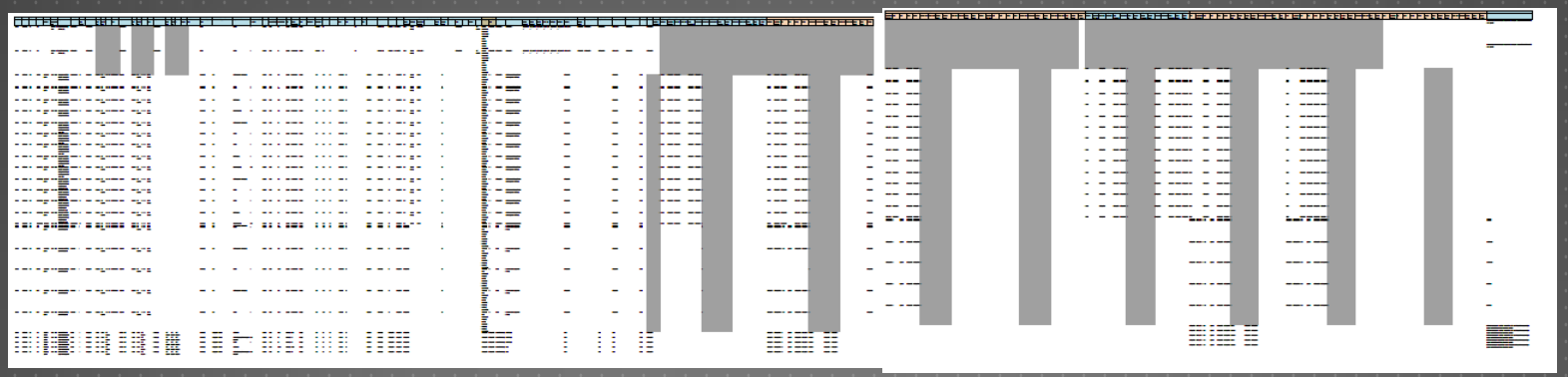
LITERATURE SEARCHES PERFORMED

- Four groups of keywords:
  - Group I: (water quality) N, P, sediment, etc.
  - Group II (load terms): load, loading rate, loss, runoff, etc.
  - Group III (agricultural lands): land use, land cover, agriculture, cropland, soybean, etc.
  - Group IV (location): Chesapeake Bay, DE, MD, NY, PA, VA, WV
- Web of Science and AGRICOLA

LITERATURE RETRIEVED

- Total haul: 5,224+ articles
- Abstracts reviewed: ~500
- Full text articles identified for review: 300+
- Articles yielding useful data, to date: ~60 articles with 2,100+ data records
- ~15 of the articles yielding useful data to date are based in the Chesapeake Bay watershed.

LITERATURE RETRIEVED



30 Records from Data Set

194 Data Entry Columns

Lots of Holes to Fill

ADDITIONAL NEEDS

- CBW-specific literature from
  - Sources other than journals
  - Journals (literature we have missed)
- For sources other than journals: COPIES
- For journal sources: COPIES or complete REFERENCES
- Send to: steven.dressing@tetratech.com

SCHEDULE

- Complete search and review: End of October
- Begin data analysis and summary: Early November
- Complete analysis: December 19, 2014