PLS DATA INPUTS AND THE CBP MODELING TOOLS

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Two Models, Two Sets of Decisions

- PLS is collecting the following data by state where available:
  - Bird Production
  - Bird Weight
  - Growout Period
  - Flocks per Year
  - Manure Generation per 1,000 Birds
  - TKN
  - NH3
  - P2O5
  - Moisture %
- Decision rules for incorporating data in Phase 5.3.2 and in Phase 6 will differ.

Phase 5.3.2 Model

- Calibrated using a given set of nutrient concentrations, manure volumes and bird inventory (population) data from 1985 through 2005.
- No re-calibration of Phase 5.3.2 will occur.
- Changes to nutrient concentrations, volumes and population data are best incorporated as trends post-2005.

Phase 6 Model

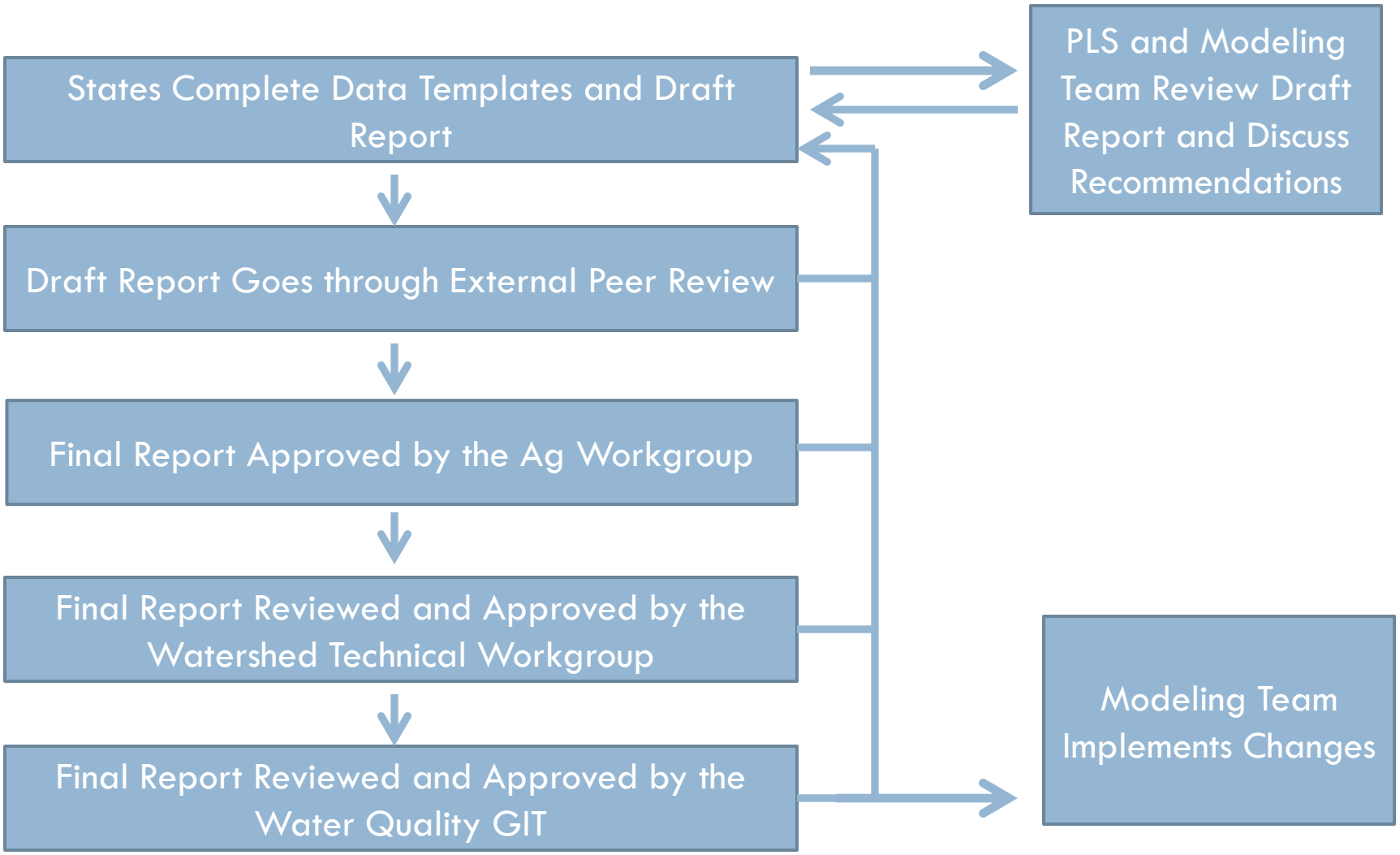
WIDE OPEN

(of course all recommendations must be based on sound science and vetted through the Partnership)

Example of Decision Rules Needed

PLS Template Values	Phase 5.3.2 Model Decision Rules	Phase 6 Model Decision Rules
Bird Production (not inventory)	Determine trends in Bird Production since 2007, and apply the trend to 2007 inventory numbers.	If county level data is available, use yearly production values as provided by NASS.
Bird Weight	Not needed for current Model. The increased bird weight will be reflected in increases to the Manure Generation per 1,000 Birds.	Determine a long-term slope for Bird Weight from 1985 through present. Use in combination with Manure Generation per 1,000 Birds and Growout Period to determine manure produced per pound of bird per day.
Growout Period	Not needed for current Model. The Manure Generation per bird per day would still be applied to an inventory number.	If yearly production values are used, the Growout Period would become the number of days each bird produced manure in a year.
Flocks per Year	Not needed for current Model. The Manure Generation per bird per day would still be applied to an inventory number.	Only needed if Growout Period is not available to derive a Growout Period as ((365 days/flocks per year) - vacant time)
Manure Generation per 1000 Birds	Determine trends since 2005 (calibration year), and apply the trend to current Scenario Builder manure generation value. Standardize to dry weight using Moisture %.	Determine a long-term slope for Manure Generation per 1,000 birds. Use in combination with Bird Weight and Growout Period to determine manure produced per pound of bird per day. Standardize to dry weight using Moisture %.
TKN	Determine trends since 2005 (calibration year), and apply the trend to current Scenario Builder nutrient concentration value. Standardize to dry weight using Moisture %.	Determine a long-term slope for TKN, and place this slope in the Phase 6 Model. Standardize to dry weight using Moisture %.
NH3	Determine trends since 2005 (calibration year), and apply the trend to current Scenario Builder nutrient conventration value. Standardize to dry weight using Moisture %.	Determine a long-term slope for NH3, and place this slope in the Phase 6 Model. Standardize to dry weight using Moisture %.
P2O5	Determine trends since 2005 (calibration year), and apply the trend to current Scenario Builder nutrient concentration value. Standardize to dry weight using Moisture %.	Determine a long-term slope for P2O5, and place this slope in the Phase 6 Model. Standardize to dry weight using Moisture %.
Moisture %	Use in combination with Manure Generation and nutrient concentrations listed above to determine dry weight concentrations.	Use in combination with Manure Generation and nutrient concentrations listed above to determine dry weight concentrations.

Approval Process



Timeline

- The process for approval can vary from one month to 6 months from the time a first draft is written.
- To meet needs for 2014 Progress, the report should be approved by the Water Quality GIT by August 31, 2014.
- Once approved, the Modeling Team would make revisions to Phase 5.3.2 within 30 days.