

Scenario Builder and Watershed Model Progress toward the MPA

Gary Shenk Modeling Workgroup 10/5/2015

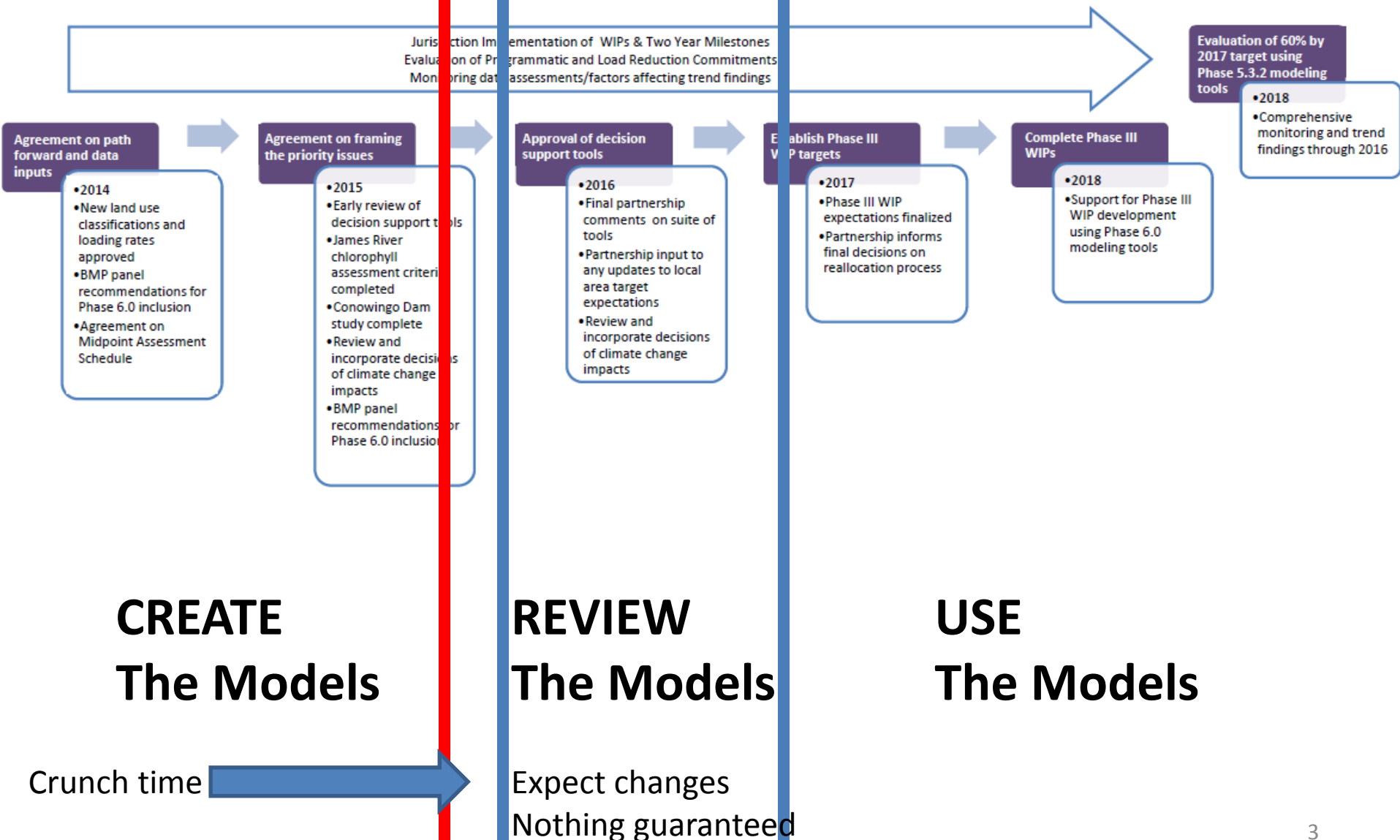


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Midpoint Assessment Timeline



Crunch Time – 10/1 – 12/20

- No new information from partnership past 9/30
- Lot of work to put all the pieces together
- Calibration



Development Timeline

- **October 2014** – Rough Draft of major changes to nutrient processing in Scenario Builder will need to be complete. Continued sensitivity refinement
- **February 2015** - draft targets for draft land Uses
- **March 2015** – All major partnership decisions are made on changes to scenario builder processing and data. Scenario builder final modifications begin.
- **April 2015** - final targets approved by Modeling Workgroup for draft land uses
- **Early October 2015** – All inputs are final and delivered to the WSM by the scenario builder team for the final calibration run. Final targets are based on this information.
- **December 2015** - Phase 6 draft model is complete.
- **December 2015 – December 2016** - Evaluation followed by fine tuning during the next year. Key scenarios available
- **September 2016** – Final comments on the draft Phase 6 model
- **December 2016** - All models are final. The partnership decision-making process begins to discuss how these new models will be used in the WIP3 process

Finished

Potentially Finished

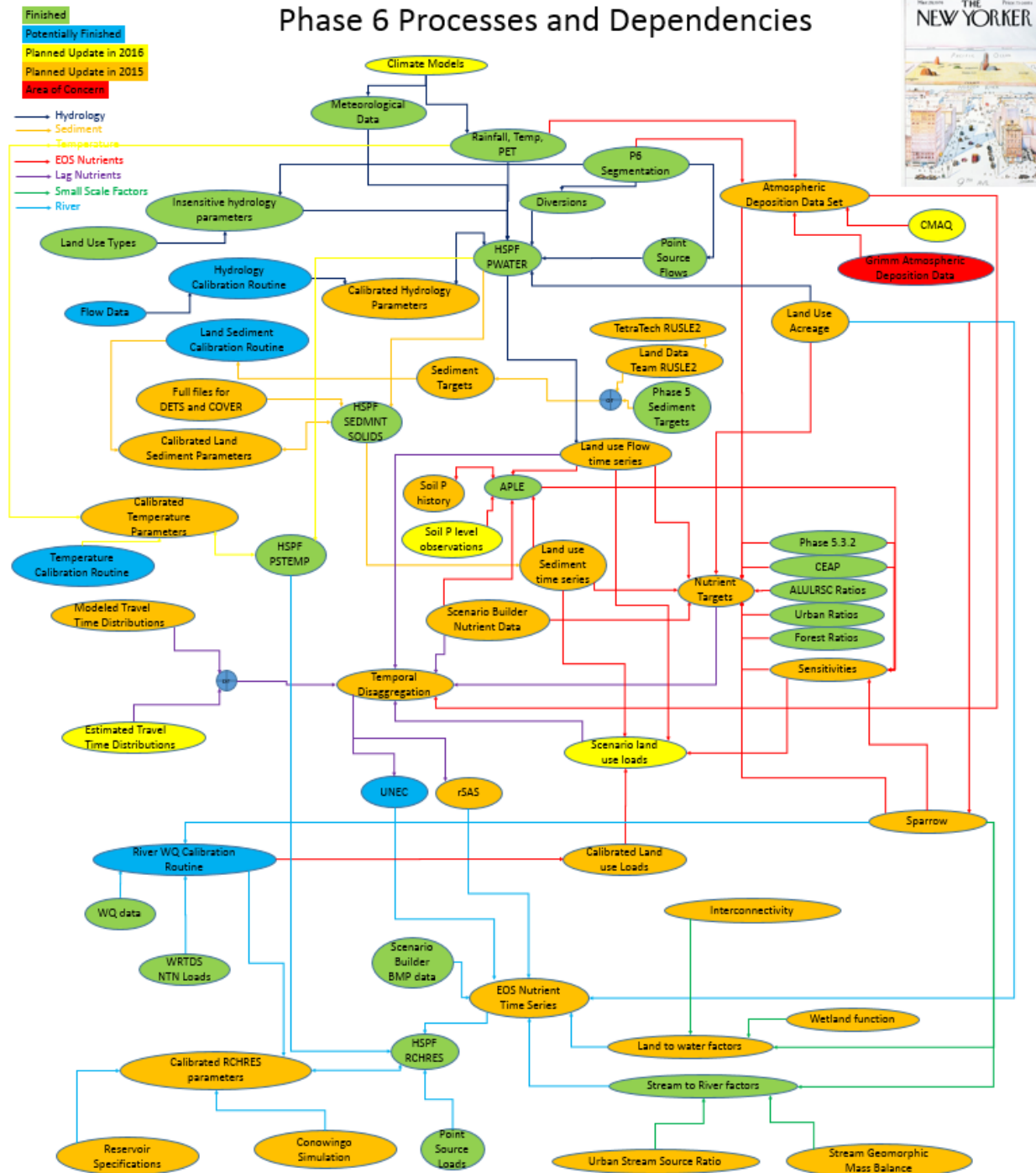
Planned Update in 2016

Planned Update in 2015

Area of Concern

Each box represents
a dataset, model, or
process

9/3/15



Finished

Potentially Finished

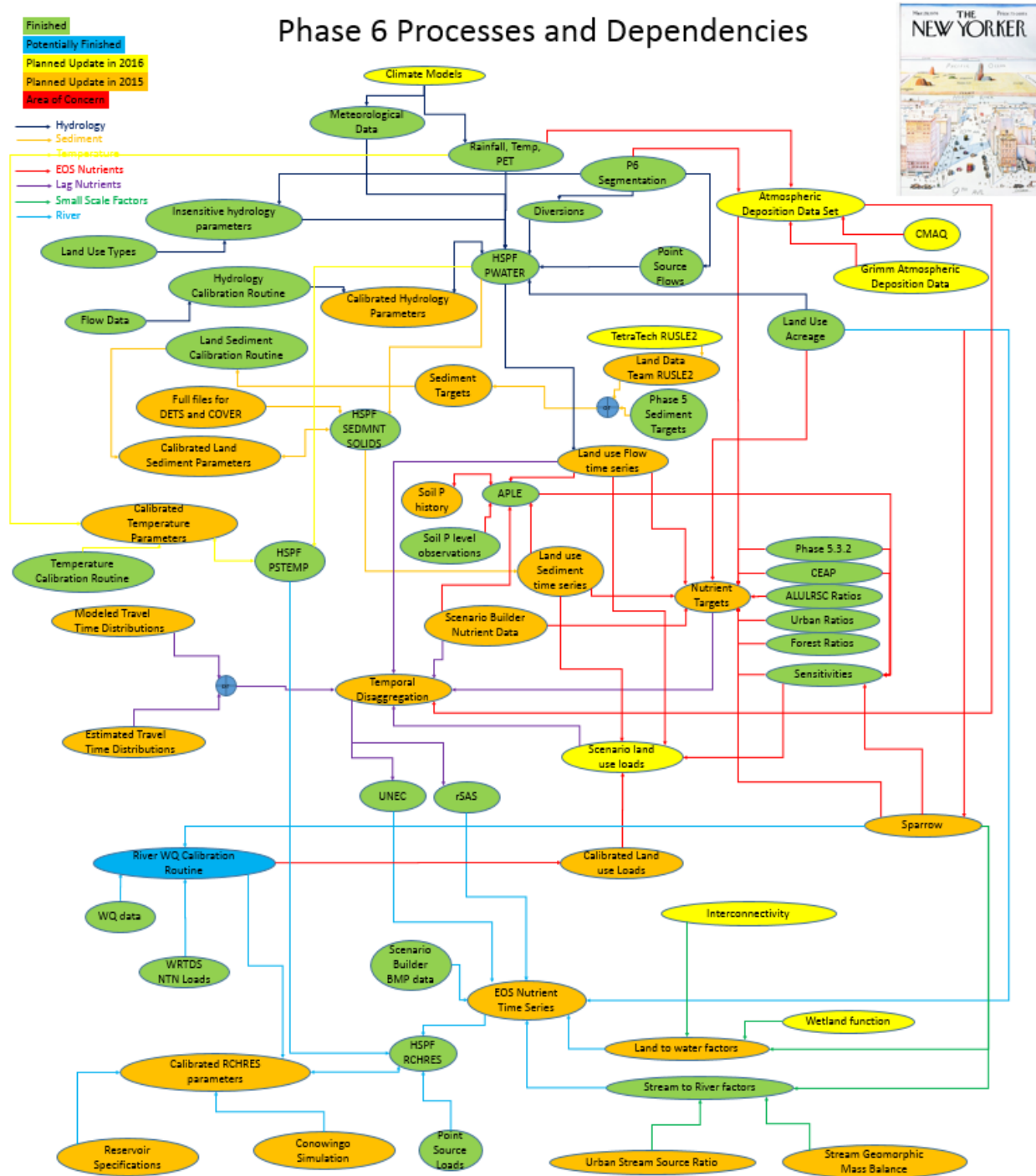
Planned Update in 2016

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Area of Concern

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Today

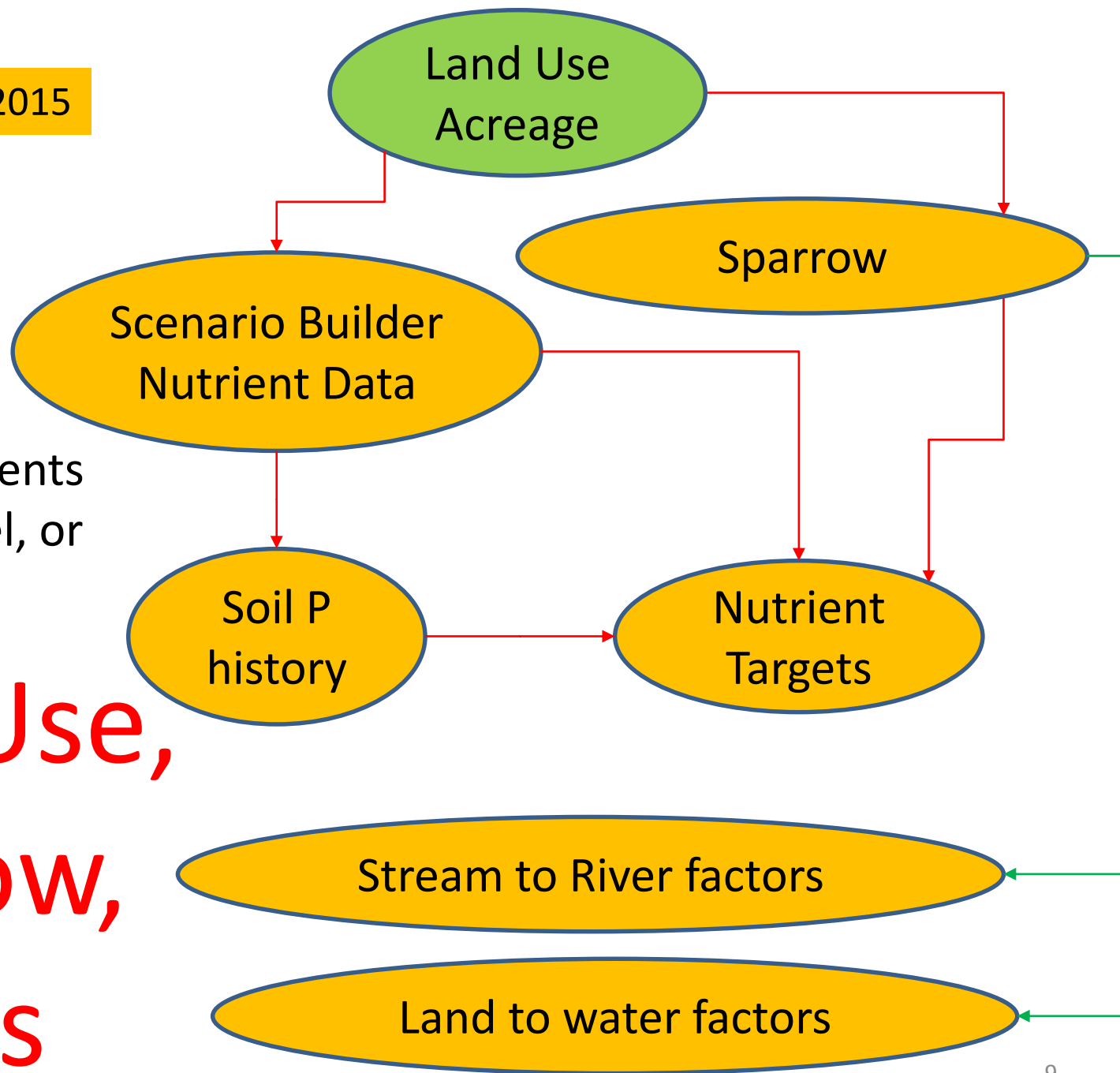


Finished

Planned Update in 2015

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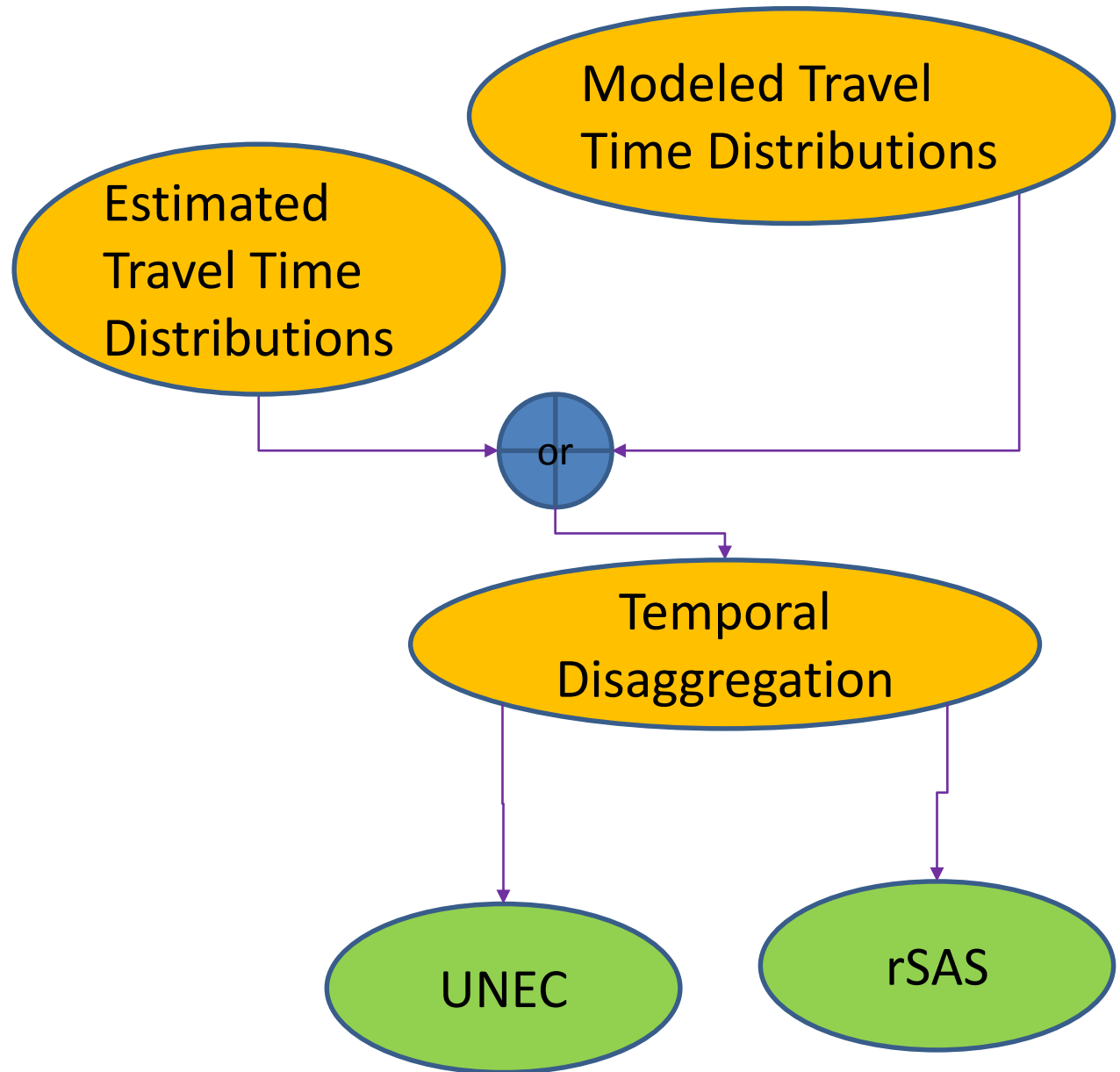
Land Use,
Sparrow,
Targets



Finished

Planned Update in 2015

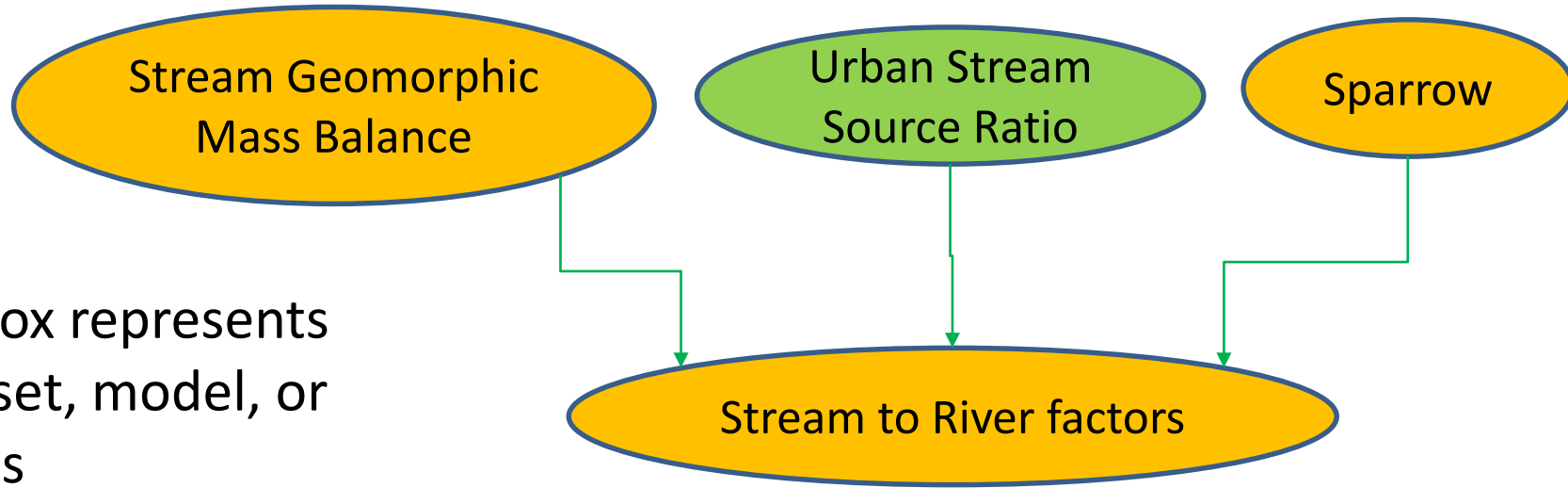
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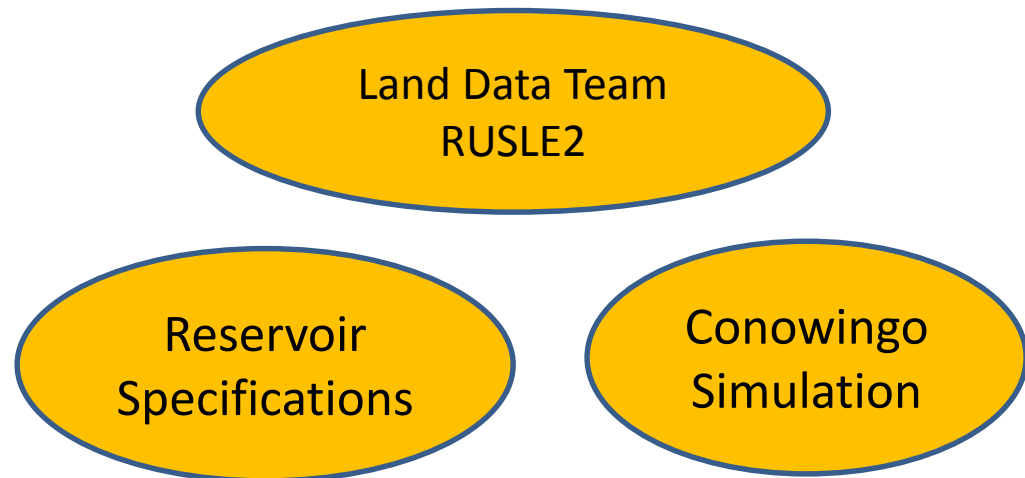
Lag
Time

Finished

Planned Update in 2015



River and Sediment



Load for a land use in a segment =

Estimated
Average + Sensitivity * Δ Inputs
Load

BMPs

Watershed Delivery Variance

Stream Delivery

River Delivery

Phase 6

“Calibration”

Multiple Lines
of Evidence
And multiple
models



Estimated
Average + Sensitivity *
Load

*

BMPs

*

Multiple
models



Δ Inputs



Scenario Builder



Estimated with Sparrow
Estimated by Land Data team



Watershed Delivery Variance

*

Estimated with Sparrow
Estimated by USGS / WVU / Land Data team



Stream Delivery

*

Simulated in HSPF
Calibrated with data, WRTDS, and Sparrow



River Delivery

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