**CNH Team Teleconference, 2/3/2017**

**Meeting Minutes**

In attendance: Pat, Joe, Cayelan, Nicole, Jen, Kelly, Kak, Lars, Julia, Kevin, Weizhe, Armen, Mike S.

Add data collation at end of call (Cayelan)

Team updates

* SDP update (Kelly)
	+ Using USDA CDL to describe crop rotations
	+ Availability of remote sensing data will constrain field-scale calibration to 2008-2013; can calibrate based on aggregate statistics (county level)
* PIHM update (Cayelan)
	+ Addressed weir operations on Lake Mendota
	+ Calibrated 2010-2013
* GLM update (Cayelan, Nicole)
	+ Mendota model (Cayelan)
		- Filling in data gaps on inflow (driver data)
		- Refining calibration now
	+ Sunapee model (Nicole)
		- 2005-2010 running
	+ Questions
		- Joe – is a preview of GLM output possible?
			* Cayelan – output variables in table on ODS
		- Kelly – calibration lessons from GLM for other modeling efforts?
			* Cayelan – workflow to standardize calibration methods (even beyond GLEON); finished UG teaching module on GLM (co-authored with Jen), working on another one now
* Hedonic update (Kevin)
	+ Data cleaning ongoing, goal is to get initial (simplest) model up and running for Mendota
* Social science (Mike S.)
	+ Recruiting student now, then will start collecting data
* Scaling up (Joe, Pat)
	+ Assembling LAGOS dataset, nearly finalized
	+ Identifying subset of larger dataset with similar lakes to scale up
		- Our lakes are large and deep relative to LAGOS, they’re outliers
		- May look at land use as a way to select “similar” lakes
	+ Questions
		- Kathie – is residence time a parameter? Would that be better than size/depth?
			* Joe – no, but working on getting residence time data, hope to integrate the two
			* Pat – have catchment to lake size ratio, a coarse proxy for residence time; our lakes are more representative in terms of residence time than area/depth
			* Cayelan – is there a quick and dirty method to get residence time estimates?
				+ Joe – yes, working on this
* Broader impacts (Kathie)
	+ Planning session with LSPA
	+ Education module mentioned by Cayelan could be a significant BI for the project as a whole
	+ Nicole and Cayelan organizing Skype meeting with LSPA about GLM modeling effort
* Cycles update (Armen)
	+ Working on P module, more complex than anticipated (not the model code, the P itself)
		- How does GLM treat P in the lake? Could use to help develop Cycles module
		- Has created a diagram on how the literature characterizes P, but doesn’t help determine how to do the modeling
		- Comments
			* Kathie – paper on biogeochemical cycling through the lens of different models; what do we know and not know (*Frontiers*?)
			* Cayelan – how P works in the world, but it’s instantiated into the model in a different way
	+ SDP-Cycles linkage
		- Determine rotations based on observations from CDL and cluster analysis for last 6 years
			* Don’t have livestock component, need to think about this
	+ By March, planning a workshop on Cycles (1-day) to demonstrate how to use the model

Graduate literature review

* Through abstract review
	+ 31 papers of several hundred to use and review
	+ Meeting next week to pull information from those papers
	+ Draft of intro/methods has been circulated to graduate students, not yet other co-authors
	+ Using ODS to update progress

Framework paper

* Timeline
	+ Out to group on 2/10
	+ Back to KC on 2/20 for final polishing
* Google Sheets sign-up for revisions to be sent out after call today

Data collation

* HydroTerre is not sufficient for running Cycles because it doesn’t have soil data by layer