Agenda: Friday Dec 15th

1. Review Food Need (without Livestock) calculation, as per FoodNeedCalcualtion.docx
   1. How do the methods hold up next to Caitlin’s?
   2. What changes should be implemented?
2. Review Crop Yield thus far in Spyder using Skype screen sharing.
   1. Field Crops - Unable to locate yield data for ‘Beans, other dry’. Only able to find it for ‘Peas dry’.
   2. Veg Crops - Should ‘Asparagus producing’ and ‘Asparagus non producing’ be combined for the ‘Asparagus’ category? Or just use producing?
   3. Potatoes - Unable to locate SWBC area commodity data for potatoes.
   4. Greenhouse Veg – Since there is just one number for all area for greenhouse veggies in SWBC should I just divide it equally between tomatoes, peppers, and cucumbers? (Thesis pg. 13 at the bottom)
3. Looking Forward: Livestock Data
   1. Livestock Head Count
      1. Unable to find ‘hogs’ in the same databases as other livestock.
   2. Yield - grain, hay, pasture
      1. Livestock Feed Requirement Study
      2. NEED to address the split in Yield Data (for every category but pasture) between FV/GV and PR/SC/SL
         1. Brainstorm quantitatively sound ways to address this.
   3. Feed and Barn

Hi Rich,

How are you? How is life in Portland, and your new job? Are you still interested in working with me on my Keystone? If you're interested here is an update on my work.

Today is my last day of my Spanish course in Cartagena, Colombia. I just have Keystone in April then I'm done. I ultimately chose Andrew as my mentor because Richard seemed overloaded with mentees and because Andrew has significant experience coding in python.

I have been using Spyder IDE (very similar to R Studio in many ways) and writing my code in Python. I have found the language, especially the Pandas, Numpy, and difflib packages to be very useful. I'm glad I'm working in Python. There are a lot packages that make things like SQL style database management easy. The going was very slow at first but it has picked up and I'm feeling more and more confident writing in Python.

I am between 1/3rd and 1/2 way done with the rough draft of the code (currently between 300 and 400 lines). I have completed the calculation of Food Need in South West BC (section 1) and organized all of the crop yield data (section 2). Section 3, is the quantification of the SWBC capacity to meet it's food need for animal products. This is trickier because of the added conversions needed (heads of cattle, to weight of cattle, to weight of commodity) and because the model includes the amount of land it takes to grow the pasture/grain/hay that is required to feed each type of cattle. This section is fraught with complications, such as the fact that the Lower Mainland and Fraser Valley have a significantly higher yields of hay and other animal feeds than Powell River/Squamish. Then there is the final optimization. If I play my cards right, this should be easy once the other

I'm handing in a rough draft of the code and the paper to Andrew on January 8th. At the moment I am powering through the rough draft of the code. Once this is done my next goal is to test, debug, and generally improve what I have.

Then there is the paper.

Are you still interested and able to help me with the project? If so, in what capacity?