1) Contributions
   a. Most contributions have been made, but have not had any contributions for forestlands
      i. Possibilities include Linda Heath, Dave Maladenof, and Bruce Cook
      ii. Could use global models for the forest portions of the MCI region
      iii. Could reduce the spatial domain, eliminating the forested areas in Wisconsin, Minnesota and Missouri
      iv. For now, will attempt to use the global model output assuming no data is provided by investigators listed above
   b. Inversions have not been provided to CSU for analysis
      i. Using 1x1 degree output from the models
         1. Finer scale than analysis being done by Andy Jacobsen
      ii. Andrew Schuh will talk with Andy Jacobsen about the availability of this output

2) Compilation of Inventory
   a. Must compile an inventory because no single contributions provides full coverage of all CO2 fluxes in the region for comparison to inversions
      i. Some contributions only cover a portion of region and others only part of the temporal domain
   b. Compilation Process
      i. Combining contributions on a source by source basis to produce an overall estimate with an uncertainty
         1. Monthly time step
         2. Assumption: each contribution to the sources is equally correct and/or flawed
            a. The whole will provide a better approximation than any single contribution
            b. Will test this assumption with the NPP-derived NASS estimates and Ameriflux data later in the year, but these evaluations are not without their problems (e.g., some models calibrated using these data)
               i. See comments in Section 5 for more information
      ii. Optimally would like to include variability from contribution to contribution on a source, and also the internal variability of each contribution
         1. Very few of the investigators have provided uncertainty with the contributions
2. S. Ogle has been contacting investigators about applying a default level of uncertainty; it is better assumption to apply some uncertainty than assuming the data have no imprecision

iii. Scaling data to 1x1 grid for comparison to the inversions
   1. Inventory data have been provided at a county scale and monthly time step
   2. Comparison to inversions will be done on a 1x1 grid so the inventory data must be re-scaled to this grid
      a. Will use an area weighting for the aggregation based on land cover maps from NLCD
   3. Could be problems with edge effects where counties cross boundaries of the 1x1 grid
      a. Will eliminate grid cells along the boundary in order to deal with this problem
      b. Will set a 85% threshold of how much of grid cell must be included before it is eliminated from the analysis

iv. S. Ogle, A. Schuh, S. Denning and D. Cooley have been working on the approach for combining these data, which includes a combination of Monte Carlo Analysis and a simple error propagation
   1. The results will be reported at NACP meeting in Feb.

3) Comparisons
   a. Data will be compared on a monthly time step using the data from the 1x1 grid (including uncertainties)
   b. Will compare the compiled inventory to each of the inversions separately
   c. Evaluate relative to individual sources using exploratory statistical approaches
      i. Will compare using RS-based and associated data provided information about land surface characteristics
         1. This will probably be more instructive about errors driven by the inventory
      ii. e.g., MODIS EVI/LAI/Fire product, NASS crop maps and county scale crop data
   d. Will aggregate the 1x1 by grid and evaluate the decline in error
      i. This will likely be more instructive about errors associated with the inversions because of issues related to the transport models
         1. Aggregate both in space and time
   e. Also will take out the mean trend and look at seasonal cycles and interannual variability between the inversions and inventories
   f. S. Ogle will report on initial findings at NACP meeting in Feb.

4) Reconciliation of inventory and inversion data
   a. This topic will be the focus of an MCI working group meeting at NACP meeting in Feb.

5) Model output to data comparisons for inventories
a. NASS-derived NPP for crops
   i. County scale data
   ii. CSU prepared dataset
b. Site scale comparisons
   i. Focus on after spring workshop in Fort Collins
   ii. Learn from continental site synthesis
   iii. Concerned about validity of comparisons
       1. Ecosystem models have so many parameters that it is often possible to adjust in a way that it matched the data
       2. However, this does not inform about model’s ability to predict state variable trends at other sites
       3. Need ground rules
          a. e.g., may request that investigators provide parameters
   iv. Compare across multiple variables
       1. NEE, AET, Temperature, GPP, NPP

6) Manuscript outline for first paper by Feb. meeting
   a. Authors will include all contributors and those analyzing the data