Hypothesis 7

* Drought issues – duration and recovery
* Drought mechanism – Saharan Air Layer role, role of ENSO
* Factors other than rainfall –
  + Temp and evapotranspiration
  + Spatial distribution of rainfall
    - Shiela Murphy, Forest inventory of water stations
    - Issues with data from ‘94 drought
* Interaction between hurricane and drought
  + Estimates of canopy storage in eastern PR could be useful
* Rapid response to measure fragmentation after a hurricane would be useful

Hypothesis 1&2

* How to quantify topography?
* Controlled greenhouse experiments – need equipment
* Timing of drought is important
* Omar Gutierrez del Arroyo – Measuring temp, moisture, oxygen, and greenhouse gases in 2x2 m plots
  + Design of plots hard to make larger due to difficulty finding a suitable location in the forest
  + Can add paired plots, but they may not be right next to each other
  + Could separate destructive and non-destructive sampling
  + People may need to come up with non-destructive sampling
  + Should GPS locations of sites

Gradient Group

* Should add stream chemistry to the table in the proposal
* Start measurements in summer 2017
* Litterfall and rainfall chemistry are already being done in other elevation gradient
* Communication is important – need ideas for sharing schedules and data
  + Bob suggested Asana
* Add a lower elevation plot? Lowest elevation currently is 300 m
* Need to send people who can measure more than one thing at a time
* Should put together papers from the elevation gradient research and send out
* Add rainfall shelters to elevation plots?

El Toro Wilderness Area Permit

* Make one programmatic permit to cover the next 5-10 years of research
* Include all projects along the Sonadora and elevation gradient
* Standardize study areas, plot markers, protocol, approved equipment installation, and sample removal protocol
  + Anything outside of these standards will need to go through additional approval
* Everyone should carry permits into the field
* All research proposals outside the ETWA should be communicated with Grizelle and Jess
* Bill McDowell suggested formalizing the research process more – maybe submitting proposals to a board
* Sarah and Chris are working on a draft of the permit

Stream drought experiment

* (missed some of this section)
* Rainy season may disrupt experiment – won’t be able to keep stream de-watered
  + Could dewater Feb and March, then again in June and July
  + Monitor drought and recovery
  + Monitor pools that formed during the 2015 drought
* Experiment is only simulating one aspect of the drought – no rain
* Should add riparian interactions – bats, insects, lizards, spiders.
* Could add stable isotope analysis

CTE Group

* Seedling and tree census will be re-done in the fall
* Have two sets of canopy photos available and another will be taken in the fall
* Two REUs working on projects in CTE – light trapping moths and fungal DNA
* Lysimeter, rainfall, leaf, and fungal mat samples still be done
* Soil sampling every 3 months
* Abiotic data from CTE 1 – ask Alonso

Business Mtg

* Jess is taking over running El Verde
* Streamhouse will be upgraded – hopefully will have a power station
* July 7 – UPR Chancellor comping to El Verde for inauguration of the new building
* Need to encourage grad student participation at monthly meetings
* Should get all grad students to come to the January meeting to prepare for site review
  + Should know where their work links to the proposal
* Need to put together an agenda for the site review (March 2017)
  + Nick has agenda from last review
* January meeting dates: 10th-13th 2017
* Site review – Week of March 27, 2017. Should arrive two days before to prep
* Annual meeting June 2017: 12th and 13th
  + Possibly use Catalina for planning meeting, El Portal or Luquillo center for arts and culture for public meeting
  + Should advertise the meeting more