Luquillo Long-Term Ecological Research Program

Progress Report to 2017 Site Review Team

March 1, 2017

**Section 1. Site-based Research, including the conceptual model, long-term experiments, modeling as a tool for insight, and the collection of long-term data in the 5 core areas of primary production, population dynamics and trophic structure, organic matter accumulation, inorganic inputs and movements of nutrients through the ecosystem, and patterns and frequency of disturbances.**

Restate Conceptual model with new slightly revised version

List of Question and Hypotheses with revised PI lists

**Question I: What Are the Short- and Long-Term Effects of Drought on Biota and Biogeochemical Cycling in Tropical Forests?**

Hypothesis 1a

2015 Drought effects on vegetation

List of long-term data sets that inform or are informed by research under hypothesis:

Core areas:

Hypothesis 1b

Preliminary results of ED2 modeling by Maria

Hypothesis 2a

Results from Hillslope Array

Omar’s Throughfall Exclusion experiment

Say anything about large throughfall experiment?

Hypothesis 2b

Plans for DAYCENT modeling by Omar

Hypothesis 3a & 3b

StreamFRE progress

Progress on modeling

**Question II: What are the Effects of Increased Frequency of Intense Hurricanes on Tropical Forest Biota and Biogeochemical Cycling?**

Hypothesis 4

Progress on Canopy Trimming Experiment

Retrim

Some new results for veg. Photos probably as now new analyses

Hypothesis 5

Results from Jean/Sharon and Omar

Hypothesis 6

Explain revision of workplan. Explain how we will decide future manipulation of litter inputs canopy

**Question III: How do Changes in Climate Interact with Hurricane Disturbance, Land Cover, and Land Use Legacies to Shape Ecosystems of the Future?**

Hypothesis 7

Results from Mote

Hypothesis 8

No progress to report but progress on Hyp 1 contrbutes

2. **Information Management**, including activities that address the 2 essential objectives of Information Management at a LTER site: (1) the collection and analysis of data necessary to complete the proposed research activities and (2) the availability of data and other relevant digital products to science, education, and general public users.

Draft text requested from Eda.

3. **Network-Level Participation and Synthesis** activities including any cross-site research.

CTFS (will host data analysis workshop in July)

CZO (one paper already)

NGEE Tropics (lots)

Caribbean Hurricane Research Group (Ecosphere special issue, RCN proposal plans)

What else?

4. **Education, Outreach and Training**, including REUs, graduate students, post-doctoral scholars, and the schoolyard LTER activities.

I can draft text from proposal and annual reports and then request input from Alonso, Noelia, and Steven.

5. **LTER Site Management** including leadership structure and decision making, fiscal accountability and budgets, site security and management, engagement of new investigators, promoting diversity of the scientific team.

I can draft.