Action Team for Strategic Plan Goal #3 – College Focus Areas
Final Report

<u>Goal A: CAES will have an organizational framework centered on these focus areas.</u>
Strategy 1: Define the organizational structure and interdisciplinary network of participating departments, programs and faculty.
   Action Item:

     1) To best capture the strengths of CAES, maintain relevance to current and future needs of our stakeholders, strengthen collaboration in research and extension, and build interdisciplinary teaching programs for undergraduate and graduate studies, we propose the organizational structure provided below (**Figure**).
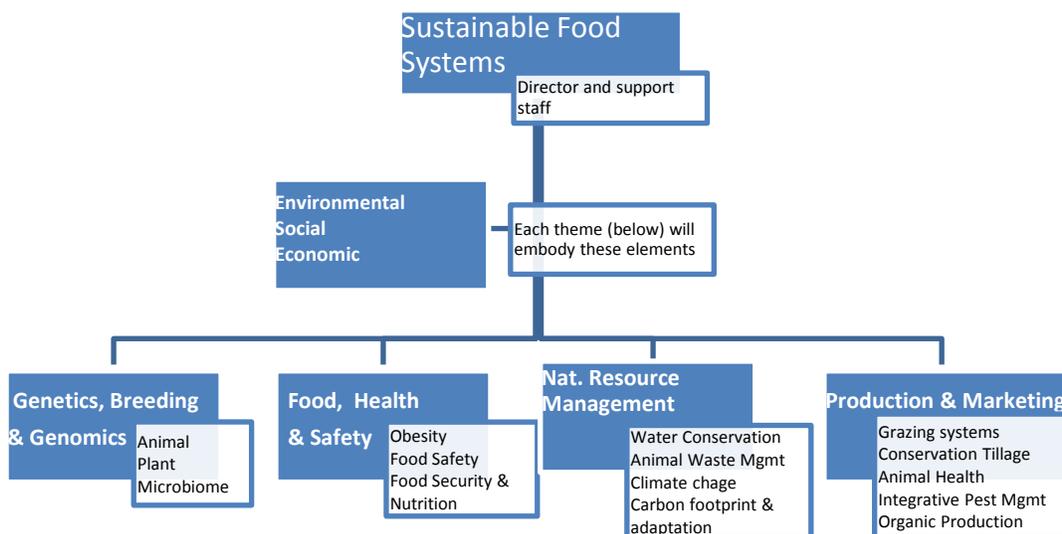

Figure: Organizational structure for a CAES-led network for research and extension collaboration and Interdisciplinary teachings programs for undergraduate and graduate students.

Strategy 2: Identify administrative requirements for implementation and to ensure feasibility
   Action Items:

1) The current system for <u>assigning departmental teaching credits and returns</u> should resemble the model that is used for allocating research dollars and indirect returns on interdepartmental research grants. That is, partial departmental credits and funding could be given to faculty from more than one department when courses are developed and taught by faculty from more than one department (or College).

   a. An <u>alternative approach: create an Institute</u> of Sustainable Food Systems. The pros and cons of building an Institute using the Institute for Plant Breeding and Genetics as a model were discussed. However, the team was concerned that the amount of time and resources needed in establishing an Institute was far too high to be considered. However, creating an Institute was favored over creating a Center or Initiative because the education component, we felt, could not be ignored.

Strategy 3: Communicate organizational plans to internal and external CAES stakeholders
  Action Item:
  1) Once the organizational plans have been finalized, we will work with OCTS and internal communications specialists to advertise and answer questions about the organizational plan.

Goal B: CAES will maintain this framework with financial and staff support.

Strategy 1:   Identify financial, technological and staff requirements to support this framework
Action Items:
  1) Financial resources are needed in the following areas: Personnel, Facilities, Equipment, Undergraduate Student Support, Graduate Student Support, Faculty/Staff Career Development, and Seed Awards for Pilot Projects. *Both no-cost and cost items are listed.*
      a. See Appendix A for complete listing of financial needs for each category listed
  2) Technological resources are needed for computing, interactive learning/collaboration software and devices, and for updating and maintaining research equipment and facilities
      a. See Appendix A for complete listing of proposed technological needs
  3) Staff requirements are listed under personnel
      a. See Appendix A- Under the personnel category

Strategy 2: Attain necessary support faculty, staff and technology for implementation
Action Items:
  1) The items identified in Appendix A & B can be supported by the following mechanisms
      a. UGA capital campaign funding mechanism- spring 2013
          i. Endowed Faculty/Chairs
          ii. Facilities & Equipment
          iii. Undergraduate Student Scholarships
          iv. Graduate Student Fellowships
          v. Faculty and Staff Career Development Awards
          vi. Seed funds for Pilot grant program; competitive grant program
      b. Prioritize new faculty hires that satisfy needs of more than one department, reducing duplication of expertise and encouraging collaboration/interdisciplinary teaching. Examples of faculty expertise that were desired in more than one department;
          i. Genetics and Genomics
      c. Prioritize new faculty hires that are needed to elevate or maintain CAES programs in the top 5 ranking (Plant Breeding and Genetics; Food Science & Center for Food Safety; etc)
      d. Re-assign current faculty research, extension and teaching percentages to harness strengths and minimize weaknesses
          i. Initiate a voluntary program for faculty re-assignment
      e. Increase the amount of industry or commodity group sponsored research
          i. Form better connections between stakeholder industry and commodity groups and applied research faculty through outreach and extension personnel

      ii. Define appropriate UGA/CAES liaisons for commodity groups, industry groups and consumer groups and urge their financial support

   f. Increase pay-for-service types of analyses using under-utilized equipment/laboratories
      i. See (e)

   g. Convert inactive research labs to laboratories for undergraduate and master's level student research projects.

   h. Explore alternative funding avenues for special programs or projects:
      i. Crowd funding and project specific gifts
      ii. workshops, training certificates and distance learning courses for professionals

Strategy 3: Fuel faculty participation by establishing an internal funding mechanism to support interdisciplinary research and Extension programs within each focus area
Action Item:
1. Create a Seed Grant Program for Basic and Integrative Projects under the Sustainable Foods Systems umbrella
   - ➤ Basic Research- Exploratory research for high risk/reward projects
   - ➤ Integrative Research- Pilot studies to bridge together interdisciplinary teams

Strategy 4: Leverage existing teaching programs to create interdisciplinary minors and/or certificate programs within each focus area
Action Items:
1. Create a Sustainable Food Systems Interdisciplinary Studies Program for undergraduate and graduate studies with the identified Focus areas. (See Appendix B for details on the proposed teaching program, possible research/teaching Tracts within each focus area.
2. Many CAES departmental courses (and UGA courses from other colleges) are already being taught in these broad subject areas. The goal is to bring together faculty teaching similar courses in different departments and decide if courses can be integrated when appropriate and decide if there are teaching gaps for which new courses are needed.

Strategy 5: Seek external funding for the teaching, research and Extension efforts of interdisciplinary units
Action Items:
1. Seek Federal Grant support for interdisciplinary teaching, research and extension efforts
2. Use a percentage of overhead from Industry/Commodity Group supported Research projects to fund interdisciplinary programs
3. Use a percentage of overhead from Pay-for-Service work to fund interdisciplinary programs
4. Explore Alternative Funding sources as mentioned in Goal B, Strategy 2, Action Item 1.g.

<u>Goal C: CAES will maintain this framework with financial and staff support.</u>

Strategy 1: Establish a system for collecting programmatic evaluations of structure, progress and relevance of the focus areas and interdisciplinary network
Action Items:
1. Program director and support staff will collect baseline data and report annually on trends in the following areas
   a. Funding for research, extension and teaching
   b. Student Enrollment/Retention

     c. Faculty/staff participation (both assigned and voluntary)
     d. Track new collaborations formed and maintenance of collaborative units
     e. Faculty, student and staff evaluations of program
     f. Stakeholder evaluation of programs
     g. Involvement with Griffin and Tifton campuses or research stations

Strategy 2: Conduct a periodic review of evaluation data and communicate progress to the CAES community
Action Items:
1. Review baseline and annual report data every 3-5 years and communicate progress and needs for improvement to CAES, UGA and its stakeholders.

Strategy 3: Determine when adjustments are needed through the work of action teams
Action Items:
1. Assign action teams to determine how to make programmatic adjustments when needed.

Appendix A

Financial and Technological Resources Needed to Implement Interdisciplinary Network for CAES Research, Teaching and Extension Programs.

<u>LIST OF NO-COST ITEMS</u>
- ➤ **Create a Sustainable Food Systems Interdisciplinary Studies Program for undergraduate and graduate studies with the identified Focus areas**; to do this, the following *must* be done:
  - o Develop a system for <u>assigning departmental teaching credits and returns</u> resembling the "transmittal form" model that is used for allocating research dollars and indirect returns on interdepartmental research grants. That is, partial departmental credits and funding could be given to faculty from more than one department when courses are developed and taught by faculty from more than one department (or College).
  - o Appoint a <u>Director</u> for leading the Sustainable Food Systems Interdisciplinary Studies Program. *Although this person could be selected from current CAES faculty, additional salary support for extra responsibilities is requested (see list of cost items).*
  - o <u>Increase communication between CAES faculty, staff, students and CAES stakeholders.</u> *Although the following positions could be selected from current CAES faculty/staff, additional salary support for extra responsibilities is requested (see list of cost items).*
    - ▪ Farm to Family Extension Coordinator
    - ▪ CAES Communications and Technology Coordinator
    - ▪ Interdisciplinary Student Learning Coordinator

- ➤ **Strategies for strengthening interdisciplinary research, teaching and extension programs within CAES;** Strategies are listed categorically.

<u>Personnel</u>
- o Bring together faculty teaching similar courses in different departments and decide if courses can be integrated
- o Prioritize new faculty hires that satisfy needs of more than one department
- o Prioritize new faculty hires that are needed to elevate or maintain CAES programs in the top 5 ranking
- o Re-assign current faculty research, extension and teaching percentages to harness strengths and minimize weaknesses

<u>Technological</u>
- ➤ Searchable databases (searchable by keywords)
  - o faculty/staff expertise (including county extension)
  - o equipment (already available)
  - o facilities (indoor/outdoor)
  - o active UGA stakeholders
  - o Industry/Commodity group partners and contacts for UGA liaison
- ➤ Develop new software or use existing software
  - o Social Networking for internal and external communication
    - ▪ Training on privacy filters for shared information
  - o Collaborative websites/wikis (such as google sites)

<u>Emphasize Alternative Funding</u>
- Increase the amount of industry or commodity group sponsored research
  - Form better connections between stakeholder industry and commodity groups and applied research faculty through outreach and extension personnel
  - Define appropriate UGA/CAES liaisons for commodity groups, industry groups and consumer groups and urge their financial support
- Increase pay-for-service types of analyses using under-utilized equipment/laboratories
  - See (above)
- Convert inactive research labs to laboratories for undergraduate and master's level student research projects.
- Explore alternative funding avenues for special programs or projects:
  - Crowd funding and project specific gifts
  - Workshops, training certificates and distance learning courses for professionals
- Seek Federal Grant support for interdisciplinary teaching, research and extension efforts
- Use a percentage of overhead from Industry/Commodity Group supported Research projects to fund interdisciplinary programs
- Use a percentage of overhead from Pay-for-Service work to fund interdisciplinary programs

LIST OF COST ITEMS
<u>Personnel</u>
- **Director of Integrative Studies** (Sustainable Food Systems Interdisciplinary Program)- $180,000 salary; $100,000 start-up package
  - Funding for the position may be leveraged from existing state dollars if person is selected from within CAES
- **Farm to Family Extension Coordinator** $85,000 salary; $50,000 start-up package
  - leveraged by already existing farm to table networks in Georgia
- **Communications and Technology Coordinator** $85,000 salary; $50,000 start-up package
  - Leveraging or joint appointment with OCTS
- **Student Learning Coordinator** $85,000 salary; $50,000 start-up package
  - Leveraging or joint appointments with offices for student support and diversity
- **Scientific support staff** salary range from $55,000 to $85,000
  - Housing scientific staff support in an interdisciplinary program, rather than attaching them to a department provides a great deal of flexibility. Their time can be allocated to projects/PIs needing assistance during intensive periods of a project and shifted to another project/PI during slow periods. PIs could apply for these positions when submitting grant applications or contract proposals and use their salary support in partial fulfillment of "matching funds" when applicable.
- **Office management/technical support** salary range from $55,000 to $85,000
  - Consider dual/multiple appointments in other budgetary units
- **Associate/full professors**- (5) $140,000 - $180,000 range for salary; $70,000- $100,000 start-up
  - Faculty could have joint appointments with other CAES departments.
  - Similarly, coordination and collaboration with other UGA colleges that are strong in molecular biology and genetics (i.e. Vet School, Ecology, Arts and Sciences) and the GA Genomics Center will maximize resources.

<u>Facilities & Equipment</u>
- Student Learning Commons ($50,000 renovations for student-led group learning and meeting place for networking)
  - designate space in underused CAES buildings
  - may be combined with UGarden and/or Campbell Research and Education Center and NESPAL (below)
- Outdoor Learning for Undergraduate and Graduate Education and Research
  - Sustainable Food Systems Learning Laboratory near the UGarden ($100,000 building/greenhouse renovations, equipment; $20,000 annually in operating)
    - Targeting undergraduate education and research
  - Campbell Research and Education Center (Athens) and NESPAL (Tifton) ($20,000 in annual operating each)
    - Targeting graduate education, research and extension
- Greenhouse for Plant Breeding and Genetics ($2M)
  - Targeting faculty and student research
- Poultry Farm converted to Research Facility ($1M)
  - Targeting faculty and student research
- Maintain equipment and facilities for state-of-the-art research in genetics, genomics, proteomics, metabolomics, etc. to maintain competiveness in CAES programs ($250,000/yr)
  - Leverage with Georgia Genomics Center, CCRC, and other UGA Colleges/Core Facilities
  -

<u>Undergraduate Student Support</u> ($100,000/yr)
- Undergraduate scholarships
  - Targeting underrepresented students
- Undergraduate research awards
  - Includes stipend, research dollars, and travel funds
- Student success program funding (combined with graduate programs below)
  - Science writing center
  - Laboratory/technical skills workshops
  - Programs to assist special needs of underrepresented student body
- Study abroad travel assistance
- Assistance for travel/living expenses for Internships and Service Learning Opportunities

<u>Graduate Student Learning</u> ($100,000/yr)
- Graduate student assisantships
  - Targeting underrepresented students
- Graduate student fellowships
  - Includes stipend, research dollars, and travel funds (especially for those relocating to Tifton or Griffin campuses after course-work completion)
- Student success program funding (combined with undergraduate programs above)
  - Science writing center
  - Laboratory/technical skills workshops
  - Programs to assist special needs of underrepresented student body
- Study abroad travel assistance
- Assistance for travel/living expenses for Internships and Service Learning Opportunities

<u>Career Development for Faculty and Staff</u> ($10,000/yr)
- ➢ Training and Travel Awards
- ➢ Symposium Development or Seminar Speaker Honorariums
- ➢ Extended Leave Opportunities to Study/Train in a second discipline
- ➢ Software, Computing or Equipment Awards

<u>Seed Funds for Basic and Integrative Projects</u> ($100,000 annually): Competitive grant program; RFP announced annually; Reviewed by internal and external panel
- ➢ Basic Research- Exploratory research for high risk/reward projects
- ➢ Integrative Research- Pilot studies to bridge together interdisciplinary teams

<u>Technological Resource Needs</u> ($20,000 initial; 5,000/year updates)
- ➢ Software and maintenance of support for distance learning
    - o bandwidth issues
    - o video conferencing tools; more access points, access from individual labs
    - o instructional video or print materials for use

Appendix B

Sustainable Food Systems Interdisciplinary Research, Extention and Teaching Program: Brief Description of Justification, Organization, Proposed Program, Focus Areas, and Tracts Within Each Focus Area.

Justification

CAES has many assets poising us to be a leader in research, teaching, and extension programs within the Sustainable Food Systems focus. *We could become a model institution for our interdisciplinary studies and systems research in this area.* Research and extension faculty have already begun forming interdisciplinary, collaborative networks (dictated by funding agencies or by necessity due to lack of funds), yet a solid network for regular communication needs to be established. The development of interdisciplinary teaching programs/majors has been inhibited by the current system of assigning departmental credits/returns for interdisciplinary courses. The system has also led to less student involvement in interdisciplinary research due to issues in assigning departmental credits/returns for faculty advising. Overcoming the barriers that impede student learning and research experiences is needed, so that our graduates are well equipped to work in an increasingly systems-oriented world.

The following Strategic Directions & Specific Priorities can be addressed by the proposed Interdisciplinary Program in Sustainable Food Systems.

- ➢ Strategic Direction I: Bringing Excellence in Undergraduate Education
  - o Priority a) Prepares graduates for life-long learning through problem-solving, collaboration, and critical thought; **enhance engagement across the curriculum to promote development of analysis and communication skills in the student-centered classroom**
  - o Priority c) Provide students with experiential research, service, international, and **co-operative learning opportunities, integrated with their area of study**.
  - o Priority e) Offer increased access to the University of Georgia through **extended campus educational programs and online education**.
  - o Priority g) Support the academic success and enrichment of all students through **special programs and initiatives**
- ➢ Strategic Direction II: Enhancing Graduate and Professional Programs
  - o Priority c) 1. Provide and promote **additional opportunities for interdisciplinary, dual, and joint degree experiences for graduate and professional students**.
- ➢ Strategic Direction III: Investing in Research Excellence at UGA
  - o Priority c. Increasing support for major equipment and technology core facilities, including the cyber-infrastructure required for **faculty research, collaboration, and global interactions**.
  - o Priority f. Encourage **interdisciplinary hiring** across college boundaries, especially in areas of strategic value.
  - o Priority h. Improve **support for interdisciplinary research programs** by establishing and investing in few strategic **"grand challenge" targets** in order to nucleate research across the University and move our core research strengths to the level of international centers of excellence. Use these grand challenge targets as vehicles to promote engagement and entrepreneurship from undergraduates to faculty and to unite the three missions around common goals.
  - o Priority I. Expand opportunities for Study in a Second Discipline in order to rejuvenate faculty research and scholarship and to **stimulate interdisciplinary work**.

- o Priority m. Strengthen the research agenda of colleges by increasing the number of research chairs.
- o Priority n. Seek **greater research synergy in the domain of public policy and international affairs** by bringing the relevant campus units under the same roof.
- ➢ Strategic Direction IV. Serving the Citizens of the State of Georgia and Beyond
  - o Priority a. Document educational and outreach **programs that enhance the social, economic and environmental well-being and health of individuals and communities**… Promote those activities through a systematic professional public relations campaign.
  - o Priority b. Link UGA research and innovation to real-world problems by supporting and encouraging faculty involvement in public service and outreach activities, including, but not limited to, the **sharing of research…and linking research and/or classroom findings to critical issues in Georgia** including economic development, the environment and public health.
  - o Priority c. …collaborate with the state of Georgia to compete globally through expanded **international programming and statewide collaboration and partnerships** and an increased alignment of existing UGA programming with Georgia's state and global priorities.
- ➢ Strategic Direction V. Improving Faculty Recruitment, Retention, and Development.
  - o Priority b. Provide **new resources for high impact and emerging areas** of research and scholarship.
- ➢ Strategic Direction VI. Improving and Maintaining Facilities and Infrastructure to Provide Excellence in Instruction, Research, and Services.
  - o Priority b. Provide **improved quality space** for faculty to conduct research.
  - o Priority c. Provide for **technology infrastructure** to meet the increased needs of instruction, research, service and administration by replacing the legacy computing systems with modern systems having an emphasis on information systems that will improve the above functions.
- ➢ Strategic Direction VII. Improving Stewardship of Natural Resources and Advancing Campus Sustainability.
  - o Priority d. **Integrate sustainability into the student experience** through curricular and co-curricular activities both in the classroom and beyond.
  - o Priority e. Enhance the **coordination, support, and awareness of the University's sustainability** efforts by establishing a coordinating body to lead efforts, increasing endowments for sustainable activities and promoting campus sustainability efforts.
  - o Priority g. Demonstrate a commitment to sustainability through reduced potable water usage, decreased waste, and increased use of **sustainable and locally grown foods**.
- ➢ Strategic Direction VIII. Ensuring Annual and Long-Term Unrestricted Support.
    - ▪ Try to establish a "goal" for your College
  - o Possible Goal—Federal funds (such as NSF) for establishing a Center of Excellence in Sustainable Food Systems could initially be sought, opening the door for achieving a long-term self-sustaining program for research and extension.

<u>Draft of Undergraduate and Graduate Studies Programs, with Focus Areas, and Tracts of Study</u>

<u>Undergraduate and Graduate Studies Core Coursework</u>
- ➢ Discussion-led or modular courses will introduce current issues and challenges in all focus areas.
- ➢ Each will explore the following facets of creating sustainability in a food system
  - Environmental
  - Social
  - Economic
- ➢ Undergraduates will complete a senior thesis project by laboratory or field research
- ➢ Graduate students will complete research-based thesis or dissertation projects
- ➢ Alternatively, core courses can be taken as an undergraduate minor or certificate program.

<u>Focus Areas and Tracts Within the Major or for Research Projects</u>
- ➢ Interdisciplinary studies can be developed in focus areas that will have additional core course requirements and elective credits.
- ➢ Research hours can be split between faculty working on collaborative projects utilizing indoor and outdoor laboratories across Athens, Griffin and Tifton campuses.
- ➢ Focus can be modified for relevance over time but the current challenge areas we have identified are listed below. Subcategories within each can also be targeted by elective courses, student projects, and directed studies. Examples of subcategories are listed below.
  - o Genetics, Breeding and Genomics Focus Area
    - Plant Tract
    - Animal Tract
    - Microbiome Tract
  - o Food, Health and Safety Focus Area
    - Obesity Tract
    - Food Safety Tract
    - Food Security & Nutrition Tract
  - o Natural Resource Management Focus Area
    - Water Quality & Conservation Tract
    - Animal Waste Management Tract
    - Climate Change Tract
    - Carbon Footprint & Adaptation Tract
  - o Production and Marketing Focus Area
    - Conservation Tillage Tract
    - Grazing Systems Tract
    - Organic Production Tract
    - Animal Health Tract
    - Integrative Pest Management Tract

Appendix C: ACCOMPLISHMENTS OR GOALS COMPLETED

Strategies within goals that have been completed to date:
- ➢ Goal A: Strategy 1: Define the organizational structure and interdisciplinary network of participating departments, programs and faculty.
- ➢ Goal B: Strategy 1: Identify financial, technological and staff requirements to support this framework.

Other abstract accomplishments:
- ➢ Cross-departmental structure of the action team and active participation of our group members enhanced our each member's knowledge about other CAES departments/units
  - o Structure, organization, location
  - o Strengths; what they are known for
  - o Difficulties, constraints or problems
  - o Needs: to maintain/enhance recognition
- ➢ Face-to-face meetings and active participation by members allowed sharing of ideas about how to have better interdisciplinary communication;
  - o What things have been tried unsuccessfully; lessons learned
  - o What has worked or is working now
  - o What are some of the root problems preventing greater communication
  - o What can be done
- ➢ An ambitious, yet cautious, excitement for making positive changes in CAES was fueled.

Appendix D: Questions and answers

- Do you feel there is a need to have a final Symposium with all Action Team members present to report on your suggested action items?
    - No. This was essentially already done in March (although prematurely). We can all read the reports from other groups.
    - What is needed now is a more focused effort to identify overlapping themes that came out in the different action teams. This can be done by a smaller group more efficiently. Representative(s) from each action team can work to make a cohesive document that will be used to guide future efforts.
    - If another presentation is made- it should be a summary of the final cohesive document. Consider Wimba for CAES-wide dissemination of this presentation.
- If you do, should we stick to the original date in the summer or do it sooner?
    - The action team members appreciate sticking to the timeline prescribed in the initial meeting of the action teams. We plan around these dates. Please consider this if future deadlines are set.
- How can we best implement the plan and action items?
    - Draft a cohesive final document
    - Submit to administrators for review
    - Receive feedback from admin defining
        - which items have been approved to move forward with the outlined plan of action and will be supported by admin
        - which items are pending approval to move forward with some modifications
        - which items are unlikely to move forward as stated
    - Regroup action teams (rotate in new members/chairs as necessary)
    - Move plans forward; modify and resubmit for approval/support when necessary
- Should we break the tasks up and assign them to people, groups or committees?
    - Yes. This has been effective thus far.
- Should the Administration be responsible for implementing the Plan?
    - Yes. We need approval and support by the administration.
- How involved should the Action Teams be in the implementation?
    - Start with established teams and rotate in/out people as needed. Alternatively, new teams could be established. Really depends on feedback we receive from admin.
- How involved do the members of your team want to stay?
    - We have invested a lot of our time on this effort. We are passionate about making positive changes in the College. We are willing and able to revise the plan as needed in order to make one cohesive document to submit to the administration. Beyond that, feedback from the administration is needed. We need to know which of our plans will be supported before we devote more of our time toward implementing our plans.