

## BUDGET JUSTIFICATION – Appalachian State

### Salaries and Wages (Lines A and B on the Proposal Budget)

**A.1.** Salary for 1.5 months each year is requested for PI . The summer salary is commensurate with salary during the academic year and includes a 5% increase in the second year. will oversee the project, including selection of field sites, experimental design, and preliminary data processing. He will also lead the two-week training institute and the one-week synthesis institute.

**B.4.** One undergraduate research assistantship is requested for 220 hours during year 1 and 240 hours during year 2 at \$10/hour. This student will assist in data assimilation for site selection and preliminary data collection and also provide support during the summer institutes. The student will also compile data files set to ASU from research teams.

### C. Fringe Benefits

Fringe benefits represent a fixed cost to the grant and are calculated at a rate established by the ASU Office of Research and Sponsored Programs (31% of PI salary and 11.3% of undergraduate student salaries). Fringe benefits increase 0.5% in the second year.

### D. Equipment

Field instrumentation totaling \$24,950 will be required during the first year. Two complete Licor LAI-2000 plant canopy analyzers are requested (\$13,560 total) and one ASDI Fieldspec Handheld portable spectroradiometer package (\$11,390 total) is also requested. The Fieldspec package consists of spectroradiometer base unit (\$8,200), 1-degree foreoptics (\$870), preinstalled radiometric calibrations (\$920), and computer control unit (\$1,400).

### E. Travel

#### E.1. Domestic

Funds are requested to cover travel to establish prospective field sites during the first year (\$1000), and travel to Washington, DC for a meeting of RIG-BP investigators (\$750). Funds are requested to attend the ESA annual meeting during year 2 (\$1,500).

### F. Participant Support Costs

#### F.1. Stipends

Funds totaling \$33,600 are requested to pay stipends to students and faculty advisors. Students and advisors will each receive \$1,000 for participating in the training institute (\$16,000 total) and \$500 for participating in the synthesis institute (\$8,000 total). Students will receive a \$400 stipend during the 2010-2011 academic year for research, and another \$400 stipend during fall 2011 for presentation of research at high schools (\$9,600 total).

#### F.2. Travel

Funds totaling \$13,400 are requested to send four students and four faculty advisors to the 2011 ESA Meeting in Austin, TX (\$1,500/student and \$1,600/advisor) and to cover the cost of group travel for field activities during the two summer institutes (\$500/year).

**F.3. Subsistence**

Funds totaling \$24,042 are requested to pay for food (\$34/person/day x 18 days x 16 people) and lodging (\$75/room/night x 19 nights x 10 rooms) for students and faculty during the two summer institutes.

**F.4. Other**

A total of \$1,500 is requested to cover the cost of materials for each of the summer institutes including notebooks, photocopies, writeable discs, and miscellaneous supplies and consumables. \$1,000 is requested for the first summer institute and \$500 is requested for the second summer institute.

**G.1. Materials and Supplies**

Funds totaling \$5,925 are requested during year 1 to purchase two Haglof Laser Vertex hypsometers (\$2500 each), four handheld differential GPS units (\$125 each) and additional field supplies for student teams (\$425 total).

**G.2. Publication Costs**

Funds total \$1,500 are requested to cover cost of publishing peer-reviewed articles during year 2.

**G.4. Computer Services**

Funds totaling \$500 are requested to purchase additional networked storage drives to house lidar and other project-related datasets.

**G.5. Subawards**

Funds totaling \$32,234 (\$15,840 in year 1, \$16,394 in year 2) are requested for annual subawards to the Ecological Society of America for activities described in the subcontractor budget and justification.

**G.6. Other**

Funds totaling \$1,000 are requested to insure and ship LAI-2000 and hypsometer units between research sites.

**PI:**  
**Appalachian State University**

## **BUDGET JUSTIFICATION**

### **Subcontract with the Ecological Society of America**

NSF funding is requested to provide the following:

#### **1. Personnel**

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Salary. Funding is requested to cover 5% FTE Director of Education and Diversity Programs, to provide support to the PI on student team management, ensure that subcontract requirements are being met, oversee SEEDS staff, draft research team evaluations, 10% FTE Diversity Programs Coordinator, , to visit the three SEEDS chapters in NC and enhance recruitment of student teams, coordinate travel arrangements, maintain communications with research teams, provide support for organization of webinars, compile research team evaluations

A 5% increment is budgeted for Y2.

**Total Salary Y1 = \$8,469, Y2 = \$8,892; Y1+Y2 = \$17,361**

Fringe 25% of Salary

**Total Fringe Y1 = \$2,117, Y2 = \$2,223; Y1+Y2 = \$4,340**

**Total Personnel Y1 = \$10,586, Y2 = \$11,115; Y1+Y2 = \$21,702**

#### **2. Supplies**

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Funding is requested to cover stationery, supplies for promotion, postage, conference calls

**Total Supplies Y1 = \$200, Y2 = \$200; Y1+Y2 = \$400**

#### **3. Travel**

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Funding is requested for one ESA staff to travel to North Carolina for three days to present the research project and recruit student teams in three HBCUs. Flight to Greensboro is estimated to be \$350. 2-night hotel is expected to be \$80/night for a total of \$160. Car rental and gas is expected to cost \$200. Meals are \$50 / day for a total of \$150.

**Total for Recruitment visit to three campuses = \$860**

Travel to ASU in 2010 to launch the project at the summer institute (3 days/2 nights) and in 2011 for to transition into the outreach program (3days/2nights) lodging at \$75/night in Y1 and \$80/night in Y2. Meals are estimated to be \$50/day on travel days (day 1 and 3) in Y1 and Y2 and \$34 at ASU (Day 2) in Y1 and \$38 at ASU in Y2. Flights into Greensboro NC are expected to be \$350 in Y1 and \$375 in Y2. A rental car and gas is estimated to cost \$150 in Y1 and \$175 in Y2 for a rental car.

**Total Travel to ASU for research institute Y1 = \$784, Y2 = \$848; Y1+Y2 = \$1632**

**Total Travel Y1 = \$1644, Y2 = \$848; Y+Y2 = \$2492**

#### 4. Other Direct Costs

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Funding is requested for support of ten archivable webinars in the fall and spring of Y2 using DimDim ([www.dimdim.com](http://www.dimdim.com)) projected to cost \$450 for 12 months starting in fall 2010 (currently \$396) to allow 80 persons to participate. DimDim also offers free VoIP teleconferencing for additional participants with a microphone. However, this technology has not yet been evaluated by the PI To ensure quality audio conferencing for the webinars, so we have projected costs for Conference calls for 10 webinars for 4 sites (via speakerphone) for the research team @ 7 cents for 90 mins = \$252.

**Total Other Direct Costs Y2 = \$702**

**TOTAL DIRECT COSTS Y1= \$12,430, Y2 = \$12,865; Y1+Y2 = \$25,295**

#### Indirect Cost

ESA will charge 27.43% of Base Costs on Personnel, Supplies, Travel, and Other Direct Costs  
Total Base for Indirect Cost Y1 = \$12,398, Y2 = \$12,841; Y1+Y2 = \$25,240.

**Total Indirect Cost Y1= \$3410, Y2 = \$3529; Y1+Y2 = \$6939**

#### ESA Subcontract Total

**Y1 = \$15,840, Y2 = \$16,394; Y1+Y2 = \$32,234**