

Resources for an Inclusive Future:

An Informational and Inspirational Program about Careers in Environmental and Natural Resources Management for the Resource Professionals of Tomorrow

Sunday, November 11, 2007 – Draft 2

1.0 EXECUTIVE SUMMARY

In December 2006, the National Science Foundation released its statistical report on women, minorities, and persons with disabilities in science and engineering. Using the most recent data on bachelor's degrees granted in 2004, the report contained information that highlighted what many in the environmental and agricultural science fields already knew to be true. The number of science degrees granted to graduates from minority backgrounds was vastly disproportionate to the number of degrees granted to minorities in other fields. Worse still, the numbers for these graduates in environmental and agricultural sciences lagged far behind those of other science fields. For instance, of the approximately 387,663 science degrees awarded to all graduates in 2004, approximately 15,600 were in agricultural sciences and 3,900 were in other environmental science degrees (e.g. earth, atmospheric, and ocean science)¹.

Astonishing as those number may be, the scenario for minorities (e.g. Latinos, African Americans, and Native Americans) in the environmental and agricultural sciences is much bleaker. Of the 5,600 agricultural science degrees granted in 2004, Asian/Pacific Americans, African Americans, Latino Americans, and Native Americans accounted for approximately 2.5%, 2.3%, 4%, and 1.2%, respectively². The trend continues for degrees in environmental science with Latino Americans as the highest minority demographic with 3.3% of degrees granted³.

Large--and largely untapped--pools of minority talent in agricultural and environmental science do exist. One simply needs to know where to look. For this reason, this program will target underrepresented high school science students in Mississippi with the purpose of spurring their interest in the environmental and natural resource science fields.

High school freshmen and/or sophomores from Jefferson County, Mississippi will be selected to spend two days exploring the world of environmental and natural resource management.

The selected participants will spend this period engaged in discussions with university students, from similar backgrounds, majoring in relevant environmental and natural

¹ National Science Foundation Report. Women, Minorities, and Persons with Disabilities in Science and Engineering. Available at <http://www.nsf.gov/statistics/wmpd/underdeg.htm>. Accessed May 2007.

² *Ibid.*

³ *Ibid.*

resource fields. These students will provide the inspiration by sharing their stories; the paths that led them to graduate school, and where they hope to go following graduation.

Students will also be exposed to career opportunities in fields related to natural resource and environmental management. They will be able to talk with seasoned professionals and the skills and knowledge needed as they carry out their stewardship duties.

Ultimately, the intention is for the high school students to enroll in one of Mississippi State University or Alcorn State University's many natural resource or agricultural programs with the possibility for exceptional students to pursue a master's degree at the Yale School of Forestry and Environmental Studies.

2.0 PROJECT DESCRIPTION

The purpose of this program is to inform high school students from underrepresented backgrounds about the many different career opportunities available within the arenas of resource management and science.

2.1 Project Goal

The main goal of the program is to provide students from underrepresented backgrounds with the information and inspiration needed to pursue an environmental or natural resources career.

2.2 History and Progression

The idea for this program stemmed from a conversation on the campus of Mississippi State in April of 2006 between Dr. Keith Belli, former Associate Dean of Mississippi State's College of Forest Resources, Emly McDiarmid, alumna (and currently Admissions Director) of the Yale School of Forestry & Environmental Studies (FES), and Derrick Dease, a 2007 FES Master's graduate. It is intended to be a joint venture between the Mississippi Forestry Commission (MFC), Mississippi State University College of Forest Resources (MSU), Yale University School of Forestry & Environmental Studies (FES), Alcorn State University (ASU), and International Paper (IP).

After the initial meeting at MSU regarding the possibility of starting this program for students in Mississippi, we sought the guidance of a number of people with experience in programs of this sort. Among our contacts was Hal Anderson, Director of the Mississippi branch of Project Learning Tree (PLT).

On January 2, 2007, Derrick Dease met with Mr. Anderson to describe the project and our goals. Mr. Anderson generously provided names of people at schools throughout Mississippi who are working on similar projects and may have an interest in partnering with this program (see Appendix A). One name that stood out was that of Ms. Sandra Ford, the Minority Outreach Coordinator for the Mississippi Forestry Commission,

whose job is to enact similar types of programs targeted at getting minority groups interested in the environment.

After much correspondence via email and telephone Ms. Ford and representatives from MSU agreed to explore the possibility of this partnership. Because Mr. Dease graduated from FES and joined the staff of International Paper, Kimpton Cooper, FES Master's candidate in his first year of study, was invited to carry on as Project Manager.

On April 26th and 27th, 2007 Kimpton Cooper, Derrick Dease, Sandra Ford, and Emly McDiarmid, met at Yale to develop a draft plan (Unfortunately, representatives from MSU were unable to attend due to Dr. Belli's departure from his post at the University.) During this two-day meeting, we agreed to invite Alcorn State University (ASU) an historically black college, to participate in the program.

On October 4th and 5th the project steering committee, now including Cooper, Dease, Ford, McDiarmid, and Professor Kevin Hunt of MSU, met at Yale to further refine the project plan. At this meeting many more details were hammered out and it was decided that representatives from FES would travel to Mississippi in November of 2007 to visit with other members of the partnership as well as to continue the planning of the project.

2.3 Participants

During the April meeting, it was proposed that we begin a small pilot program with Jefferson County School System in southwest Mississippi⁴. The site for this pilot program was chosen because of its proximity to the ASU campus (proposed host of the pilot program), its high proportion of African American students, and Ms. Ford's ongoing rapport with the school system administrators.

We anticipate that 20 to 30 high performing high school students will be nominated by science teachers/school counselors and approved by school principals to participate in the program.

2.4 Program Activities

We will host a workshop featuring diverse panelists from an array of backgrounds and ages to describe the paths they've taken to achieve their personal and professional goals. The program will solicit help from new, as well as older, FES, ASU, and MSU graduates who will discuss their personal pathways to success.

The program will also seek to expose students to a variety of career avenues available in the environmental and natural resource fields.

The Jefferson County program will consist of events over two days. [Each organization will be asked to spend time highlighting one major component of its programs and how

⁴ As of 2000, the population is 9,740. Its county seat is Fayette, Miss. Jefferson County has the highest percentage of African Americans of any county in the United States.

that component might affect the students themselves.] However, the emphasis for all of the discussions will be on providing information/inspiration for the students to go to college and hopefully choose a field in the environmental or natural sciences. Panelists can use this opportunity to provide their own “Keys to Success” and talk about how the work they do is tied to the goals of this program.

The implementation of this proposal will only be possible with the buy-in of the teachers and administrative personnel of the school system. A critical task is to plan an effective means of communication with them. One incentive for science teachers might be to know they can call on MSU, ASU, MFC, and FES as support mechanisms for their classrooms.

[The four participating groups will define their institutional interests and highlight how those interests enhance the science field and how they can provide more educational tools for the teachers. We would also ask that the teachers continue to discuss environmental issues in their classrooms and incorporate them into their lesson plans. Sandra Ford will devise a framework of what the teachers can do after the program to keep the students interested in some of the topics that are discussed. Based on that written framework, teachers will be asked to give feedback and integrate any modifications to it that would be important to their specific, unique needs.]

2.4.1 Roles of Partners

The Yale School of Forestry & Environmental Studies

A proposed theme for the day could be the issue of global climate change and how it will inevitably affect people of color in much greater proportions than the larger population. FES students would have an interactive discussion on exactly what global climate change is and how it might affect the students themselves (Hurricane Katrina is an obvious example of how low-income minorities were most adversely affected by a horrific storm.) The discussion would also provide an opportunity for the students to ask questions and converse with the panelists about their career choices.

Alcorn State University

ASU will host and provide the facilities for the event. Its faculty and students will be invited to join us for the day and participate in the panel.

Mississippi State University

MSU’s College of Forest Resources conducts fascinating research that will stimulate students to become interested in fields in forestry and natural resource conservation. Through the school’s chapter of Minorities in Agriculture, Natural Resources, and the Related Sciences (MANRRS), MSU can provide a great deal knowledge about how the forests in the students’ own backyard play an important role in their everyday lives. MSU’s Wood Magic Science Fair staff, which seeks to educate students about the importance of wood and wood products to each of us individually and to the economy of the nation, could also play a role in the program.

Since many of the students may be fishers or hunters, MSU could also discuss the impacts of global climate change on animals in Mississippi and all over the world. This would expose the students to various animal species they may never see or hear about otherwise while also showing them that global climate change could have an effect on things they love to do.

Mississippi Forestry Commission

The Mississippi Forestry Commission could tie the entire day together by presenting itself as an information resource for students to learn more about all of the topics that were discussed during the day. Students would benefit from learning more about the services the agency provides the State of Mississippi. It will also be beneficial for the students to know about employment opportunities available within MFC and how to go about tapping into them.

2.5 Budget

This program is anticipated to cost approximately \$11,800. The total includes travel to and from the program site, lodging, and meals during the event, as well as materials to be distributed to students and teachers. A detailed budget breakdown can be found in Appendix B.

3.0 Moving Forward

We will be asking that ASU, MSU, and FES choose two or three students along with a faculty member to participate in this two day event. All project assistants should have an interest in increasing racial and ethnic diversity in their fields and should be articulate, personable, and enjoy discussing what they do with students. Sandra Ford will be the contact person for the Jefferson County School System, ASU, and MFC, Derrick Dease will be the contact person for International Paper, Dr. Kevin Hunt will be the contact for MSU College of Forest Resources , and Kimpton Cooper and Emly McDiarmid will be the primary contacts for FES.

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