EMBRACING AND ENHANCING IUPUI'S NATURAL HERITAGE:
A CONCEPT PLAN

EXECUTIVE SUMMARY
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White River Greenway trail adjacent to IUPUI

Geology students mapping the White River Floodplain

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The Center for Earth and Environmental Science

~ Promoting Science-based Environmental Stewardship ~

EMBRACING AND ENHANCING IUPUI'S NATURAL HERITAGE: A CONCEPT PLAN

The Center for Earth and Environmental Science (CEES) promotes science-based environmental stewardship through research, education and public awareness programs. CEES research and education programs translate solutions to environmental professionals, students, and citizens. The Center for Urban Policy and the Environment (CUPE) was created to improve public policy discourse and decision making through service, scholarly publications, and applied research. Among other activities, CUPE has been involved in a set of studies related to use and management of the greenways system in Indianapolis. In a model of interdisciplinary collaboration, CEES and CUPE propose a series of projects with community-based partners to embrace and enhance IUPUI's natural heritage.

Proposed projects include:

1. **White River Riparian Restoration Project;**
2. **Campus Ecosystem and Greenways Project; and**
3. **Educational Outreach and Urban Environment Demonstration Projects.**

CEES and CUPE have identified individuals and organizations in state and local government and in the private sector in Indianapolis that are interested in projects to enhance IUPUI's natural heritage and have pledged support to help implement them. These projects will extend the teaching and service missions of IUPUI, enhance IUPUI's mission as an urban university, complete the last key component of a conservation corridor across Marion County, provide students with opportunities for field research near campus, beautify the IUPUI campus, and build strong ties to the Indianapolis community. CEES and CUPE will undertake the projects in phases, beginning with the White River Riparian Restoration Project in Spring Semester 2000. CEES and CUPE will report progress annually and will complete an evaluation at the end of the 2003-2004 academic year.

White River Riparian Restoration Project

The White River Riparian Restoration Project will strengthen experiential environmental education in the curriculum at IUPUI by providing students opportunities to engage in service and research related to riparian (river margin) restoration along the White River. Restoration of the floodplain ecosystem along the west side of the IUPUI campus would help complete the last key component of a conservation corridor through Marion County. The first phase of the project will involve planting and monitoring the growth of trees along eight acres of the floodplain along the White River immediately west of the IUPUI campus. This work is tentatively scheduled to begin in January, 2000. Restoration planning and plantings will be done by students participating in a series of courses and in service learning in introductory science courses already being offered by IUPUI faculty and staff, and supervised by members of the Office of Stewardship, Indianapolis Parks Department. The U.S. Fish and Wildlife Service already has allocated 4000 trees for the restoration. Representatives of twelve organizations have agreed to serve as project advisors. The restoration project will incorporate experiments comparable to experiments being conducted at an NSF-funded Long Term Research Site for urban ecology in Baltimore. CEES staff have spearheaded this project and fostered collaboration across IUPUI schools and with relevant government agencies. Faculty from the Department of Geology (SOS), SPEA, and Geography (SLA) will oversee the project to combine expertise in a truly interdisciplinary way. A five-page concept plan is available for review.

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Campus Ecosystem and Greenways Project

The Campus Ecosystem and Greenways Project will integrate the IUPUI campus into the Indianapolis Greenways System and create informal opportunities for education about native ecosystems. A network of native ecosystem corridors through campus could be effectively used to a) raise awareness for sustainable interactions between natural and urban environments, b) promote fitness and active recreation on the IUPUI campus, c) beautify the IUPUI campus, and d) link IUPUI to the broader Indianapolis community. The White River Trail, one of six linked trails that now provide for active recreation, has recently been extended south from 16th street along the river and the western edge of the IUPUI campus. One spur of the trail now terminates at the Cancer Survior's Park. The Office of Greenways, Indy Parks, directed by Mr. Ray Irvin, is interested in working to develop a trail network through campus. This trail network would increase access to the White River Trail and improve linkages to the downtown canal. CEES and CUPE have successfully completed a number of projects with the Office of Greenways. Faculty in Geology and SPEA will coordinate this initiative. A three page concept plan is available for review.

Educational Outreach and Urban Environmental Demonstration Projects

CEES and CUPE also expect to undertake several other environmental demonstration projects that build from the White River Riparian Restoration and the Campus Ecosystem and Greenways Projects. Potential projects and applications include a) implementing best management practices for stormwater runoff along the White River, b) field plots and study areas for geology, ecology, and biology on campus, c) gardens, wetlands and native bird and butterfly areas for education and discovery at the new IUPUI Child Care Center, and d) utilizing environmental restoration areas as workshop and training sites for pre-service and in-service teachers and environmental professionals. For example, the liaison from the Natural Resources Conservation Service to the Indiana Department of Environmental Management has inquired about the feasibility of constructing best management practices for removing pollution in stormwater along the White River. The floodplain restoration site is well situated to serve as an outdoor classroom for continuing education classes geared towards environmental professionals and administrators. Forest Clark of the US Fish and Wildlife Service has inquired about the possibility of a restoration conference at IUPUI that would utilize the restoration site as a demonstration site. Ongoing educational outreach programs between CEES and the Indiana Historical Society are focused on the historical changes to the White River and could be extended to include analysis of restoration scenarios. The Geography Educators Network of Indiana, housed in SLA, offers in-service teacher summer institutes and is interested in utilizing the site for laboratory exercises. Plans for these projects and courses are still in the developmental stage, but the success of past Watershed and Wetlands courses and an NSF-funded National Science Education Standards in-service teacher course offered by CEES clearly demonstrates the need and demand for this type of educational outreach. Ideas about these projects are under development and CEES believes that projects will continually emerge over time.

A plan to embrace and enhance IUPUI's natural heritage has come of age. Awareness about the possibility of positive interactions between people and our natural environment in urban settings is on the rise. IUPUI is in a unique position to become a model urban university that integrates native ecosystems, conservation corridors, environmental restoration and campus beautification with experiential education for students, teachers, and environmental professionals while inextricably linking IUPUI to the Indianapolis community.