

PLACES Program Helps Communities onto the Path of Sustainability

Research Value:

Land use changes from natural to more man-made environments that are done with no community level planning, shorten the life span and lessen the quality of life of a community.

Land use decisions are largely responsible for loss of *ecosystem services* that sustain us and provide us with quality of life. These include the air we breathe, the water we drink, plants and animals that sustain us and add to our quality of life, and provide the raw materials on which all of our economy is based. Because development usually involves many small land use changes by individuals over time, not guided by a larger plan, these necessary ecosystem services are being lost. A community armed with a master plan with a number of alternative strategies that consider the natural, social, and economic needs of the community can secure these services and thus a long future with an excellent quality of life.

PLACES (Planning Land And Communities to be Environmentally Sustainable) is an EPA program that encourages and enables communities to voluntarily get their development strategies on a path that will sustain the environmental services that are necessary to protect the environment and human health. This program is

modeled after popular green building programs such as Leadership in Energy & Environmental Design (LEED), Smart Growth, Sustainable Sites Initiative, Green Globes, etc. that focus on site development, except that it is applied to entire communities.



Research Details:

Because all land uses will degrade ecosystems that sustain human life, development decisions must account for their effects on ecosystems. This requires: (1) that local and regional ecosystem functions and processes be identified, establishing a context for making site-level land use decisions that minimize impacts on ecosystems; and (2) a way to counteract the cumulative effects on ecosystems that will inevitably occur, but are beyond local property boundaries and, therefore, beyond the reach of site-level land users. Because this task is beyond the ability of any individual land user to

accomplish, this program focuses on the smallest form of social institution that has the authority and means to act, i.e., the community.

EPA Land management researchers created the **PLACES** program to enable communities to voluntarily:

Identify the natural systems context for making land use decisions so that each land use is aligned with the natural systems that sustain human life

Develop public/private community programs to counteract incremental and cumulative environmental impacts so that natural systems remain functional

This program is designed to solve environmental problems in the planning process, so that the environment is not compromised, and costs to resolve environmental problems are largely avoided.

Outcomes and Impacts:

The PLACES program is an evolving one whose guidelines are expected to undergo modifications as they are applied to more communities where the science of human-environment relationships can be developed.

Through programs like PLACES, the EPA has shown a commitment to sustainability and working with entire communities for maximum effect.



The PLACES program is building upon the successful collaboration of the EPA, Kansas State University, and EPA Region 7 with the town of Stella, Missouri to help it adopt more sustainable development policies. This EPA program has shown the ability to facilitate the awakening of a community's sense of place so that they make decisions that lead to a better quality of life. The program enables community planning decisions informed by an awareness of the natural aspects of each unique place. Sustainability efforts in Stella illustrate how the town can improve social and economic systems while maintaining intact and functioning ecosystems. Some of these efforts include development of a park, rain gardens, habitat protection, and more monitoring of local water quality.

Another test of PLACES begins this year under the aegis of the US/German Bilateral Work Group in the town of Biedenkopf in Germany. The EPA is currently seeking additional candidate communities in the U.S. to participate in this program.



LAND RESEARCH PROGRAM

WEB SITE: www.epa.gov/nrmrl/lrpcd

CONTACTS

Technical Inquiries.

Verle Hansen, 513-569-7326, EPA/
ORD/NRMRL/ LRPCD/RRB
hansen.verle@epa.gov

Communications Inquiries

Roger Yeardley, 513-569-7548.
EPA/ ORD/NRMRL/ LRPCD
yeardley.roger@epa.gov

REFERENCES

Hansen, Verle. 26 June 2009. Planning Sustainable Land-Use: The Experience of Stella, Missouri. Presentation to the Workshop on Institutionalizing Sustainability Assessment: The Case of Land-use Decisions, Helmholtz Centre for Environmental Research- UFZ, Leipzig, Germany.

Hansen, Verle. 7 May 2008. Considering Environment, Economy, and Society in Land-use: A Case Study -- Stella, Missouri. Presentation at 2008 Brownfield Conference, Detroit, MI.

Hansen, Verle. 2 August 2007. Starting Small in Stella: Learning How to Plan for Sustainability. Paper and presentation to "Forum on the application of sustainability theory to urban development practice", College of Design, Art, Architecture, and Planning, University of Cincinnati.