

SUSTAINABLE DEVELOPMENT SYMPOSIUM

Post-Symposium Report

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SUSTAINABLE DEVELOPMENT SYMPOSIUM

Executive Summary

With support from the Nord Family Foundation, the City of Oberlin and the Environmental Studies Program at Oberlin College co-sponsored a Symposium on Sustainable Development on April 25-26, 1997. The symposium provided an opportunity to focus on sustainable development alternatives that can preserve environmental quality while enhancing the local economy. The symposium attracted a regional audience and focused on three themes related to sustainable development: sustainable land-use, sustainable energy, and economic renewal. Sustainable land-use involves development and land-use patterns that do not compromise ecological quality or community vitality. Sustainable energy options include energy conservation measures which reduce demand and renewable energy alternatives that promote clean power and local economic development. Finally, economic renewal principles promote a community-based and collaborative process to build local economies "from the ground up."

Over 150 people attended the symposium. Participants included: students, faculty, and staff of Oberlin College, university educators, members of the Oberlin City Council and City Government, members of Lorain County government, and citizens and officials from Cleveland, Yellow Springs, Columbus, Akron, and Medina. In addition to presentations from some of the nation's leading voices for sustainable development, two community meals and five work sessions provided an opportunity for people to discuss the application of sustainable development principles to local projects.

The following action steps were identified at the symposium for promoting sustainable development to respond to some of the economic and environmental pressures facing Oberlin and the surrounding region:

LAND-USE

- Maintain rural character by combining farmland and open space preservation and focusing development on already urbanized and developed areas
- Develop a joint land-use planning project between Oberlin College, the City of Oberlin, and New Russia Township

REGIONAL COOPERATION

- Understand ourselves as citizens of a region rather than citizens of a city or township
- Develop a participatory planning process to discuss what the region should look like in fifty years
- Identify avenues for cooperation and collaboration between the Oberlin City Government and the townships

HOUSING

- Link affordable housing needs with energy efficiency and resource conservation projects
- Create a sustainable housing coalition between the Oberlin Student Cooperative Association, the city, and the college

EDUCATION

- Focus Oberlin College student research on sustainable development projects in the community
- Develop a public outreach program for builders and developers that includes demonstration projects such as the Environmental Studies Center
- Sponsor educational forums for the community on development issues
- Develop a network of local experts (including Oberlin College alumni and Kendall residents) who can provide input to local projects

AGRICULTURE

- Promote sustainable agriculture which addresses hunger, economic development, education, health, and the environment comprehensively
- Support local agricultural producers by expanding markets for local and organic produce and increase urban and school-based community gardens

ENERGY

- Investigate the feasibility of generating electricity from the BFI landfill just outside of Oberlin City Limits
- Encourage energy conservation as an economic development strategy to reduce energy expenditures and costly power plants

OPEN-SPACE

- Designate zones along the bike path and Pyle reservoir to experiment with sustainable approaches to open-space management
- Conduct a comprehensive survey of ecologically critical zones within Oberlin that should be preserved for various open-space purposes (habitat, recreation, riparian protection, parks, etc.)
- Institute a restoration plan for the Plum Creek corridor

ECONOMIC RENEWAL

- Complete an analysis of the downtown economy and identify areas where local resources are leaking out of the economy (such as with energy)
- Pursue public/private partnerships to build the local economy while addressing critical community needs

SYMPOSIUM ON SUSTAINABLE DEVELOPMENT City of Oberlin Recommendations

Fran Bauman, the Chair of the Oberlin City Council, and Rob DiSpirito, Oberlin City Manager, made the following recommendations for follow-up to the Symposium on Sustainable Development:

- 1) Adopt a policy of sustainability. A sustainable plan integrates long-term energy planning into the local policy-making framework. A sustainable system is consistent, renewable, diverse, inclusive, and interdependent. There are several cities, such as Chattanooga and San Jose, that we can use as a model for developing a policy of sustainability.
- 2) Review the strategic plan for the city as it relates to sustainability. A stewardship body, like the Chattanooga Venture that can serve as a convener for private and public bodies, could be a plus for any vision that is adopted.
- 3) Continue to gather facts and data on the use of methane gas from BFI and develop a time line for implementation
- 4) Meet with members of the New Russia Township and look at common concerns and opportunities to work together on such issues as land-use.
- 5) Ask Wes Birdsall to return to Oberlin to help plan an energy efficiency program.
- 6) Ask Carol Franklin to return to help plan a workshop to study Oberlin's flooding problems and the preservation of Plum Creek.
- 7) Get Anton Nelessen to conduct a Visual Preference Survey for land-use in Oberlin and include the townships. This was suggested by David Crockett in his presentation. In this process, citizens are shown a series of slides of single-family housing, apartments, stores, signs, streets, and public places in their region. They are asked to grade each view on a minus-ten to-plus ten scale, picking the urban forms that fit the area best. The results of this survey are used to determine the aesthetic and design criteria for future developments in the city and the township.
- 8) Set-up citizen task forces to follow-up on local issues such as energy conservation, sustainable development education, and land-use.

**BACKGROUND:
The Need for Sustainable Development**

Sustainable development accounts for the needs of present and future generations, encourages local economic development, and works towards a greater quality of life for the community. Sustainable development practices can provide positive alternatives to many of the issues that threaten the economic stability, environmental quality, and community vitality of Lorain County. Some current issues include:

- According to the Regional Environmental Priorities Project, outmigration from urban centers, popularly known as "urban sprawl", is the top regional environmental problem;
- According to an April 25, 1997 article in the *Cleveland Plain Dealer*, 38 acres of farmland in Medina County alone are lost each week to housing subdivisions and commercial development;
- From 1982-1992, the five-county Cleveland Metropolitan area lost an average of 19% of its active farm land; while Lorain County lost only 4% in that same period, urban development pressure is beginning to encroach on Lorain County;
- In a 1997 American Farmland Trust report, Lorain, Medina, and Lake counties were identified as the seventh most threatened areas in the country for agricultural land lost to urban development;
- According to a study in Lake County, open space and agricultural land cost only .34 cents to maintain for each dollar of property tax revenue generated. For housing and residential areas, it costs \$1.54 in public services for each \$1 of property tax revenue generated;
- The five county Cleveland metropolitan area is estimated to lose 3% of its population by the year 2010 while occupying 30% more land.
- In Northeast Ohio, 90% of the original wetlands have been drained, leading to increased problems in flooding, storm-water run-off, water quality, and declines in biological diversity;
- Of the \$10 million spent on electricity and natural gas within the City of Oberlin, it is estimated that \$8 million immediately leaves the local community. Additionally, 83% of Oberlin's electricity is generated by coal which contributes to atmospheric carbon emissions, acid precipitation, and biological impoverishment;
- It is estimated that an area of land that possesses over 12% impermeable surface can destroy a water system. A major stretch of Plum Creek is in violation of clean water standards set by the Black River Remedial Action Plan due in large part to storm water run-off from the urban area.

**BACKGROUND:
The Symposium on Sustainable Development:**

The symposium was organized to begin dialogue on how Oberlin and other communities around Northeastern Ohio could proactively address the above challenges. Nationally renowned leaders from communities around America presented their practical experience with sustainable development. The presenters included:

- *Wes Birdsell, the former director of the Osage, Iowa Municipal Utility.* As a result of energy conservation measures that he implemented, the Osage community saves over \$1 million per year. Additionally, their electricity rates are half of the state average;
- *David Crockett, former City Council Member, City of Chattanooga.* Mr. Crockett is the leader in the internationally acclaimed efforts to make Chattanooga the world's first green city, which includes a central business district that has been declared a "zero emissions zone".
- *Carol Franklin, Principal in the Award winning landscape architecture and design firm of Andropogon Associates, Inc. in Philadelphia.* Carol has applied ecological design principles to landscape projects which protect local ecosystems.
- *Michael Kinsley, Director of the Economic Renewal Project of the Rocky Mountain Institute and former Pitkin County (Colorado) commissioner and author of Economic Renewal Guide (Rocky Mountain Institute, 1996).* Kinsley worked with Alamosa, Colorado, to develop an economic renewal program that re-vitalized their downtown area and strengthened their community economy.
- *Ed Smeloff, Board of Directors, Sacramento Municipal Utility District (SMUD) and author of Reinventing Electric Utilities (Island Press, 1996).* SMUD is famous for developing wind and solar energy resources and instituting energy conservation programs.

Work sessions provided an opportunity for participants to interact with the speakers, students, and community members on issues of local concern. The work sessions were facilitated by leaders from around Lorain County and covered the following topics:

- **City and Township Cooperation on Land-Use**, facilitated by Dick Williams, New Russia Township Trustee
- **Open Space Preservation in Oberlin**, facilitated by Christie Vargo, Erie Shores Girl Scout Council
- **Sustainable Housing**, facilitated by Elisabeth Dreyfus of the Grassroots Leadership Development Organization
- **Sustainable Agriculture in Lorain County**, facilitated by Sharon Kleppel of the Catholic Action Commission, and
- **Energy Conservation and Renewable Energy Development in Oberlin**, facilitated by Lisa Hong of the Ohio Environmental Council.

Two meals were prepared by the Oberlin Sustainable Agriculture Project for the symposium: a dinner on Friday, April 25 and a lunch on Saturday, April 26. To uphold the principles for sustainable development at the conference, 95% of the ingredients for

the meals were organic. Furthermore, most of the food items were purchased from local producers in an effort to keep our money circulating in the local economy.

SYMPOSIUM ON SUSTAINABLE DEVELOPMENT GUEST SPEAKERS:

KEYNOTE ADDRESS:
DAVID CROCKETT, CITY OF CHATTANOOGA
"Building Green Cities"
Summarized by Manda Gillespie

"You have something special here," David Crockett began his presentation, speaking of Oberlin. Crockett, a former member of the Chattanooga City Council, gave the keynote address on the City of Chattanooga which gained international attention for their efforts to clean their air and water while re-vitalizing their economy.

Crockett began his presentation by noting that this decade will be remembered as "The Age of Sustainability." America consumes more land, energy, and resources than any other country. As we reach physical limits, we will need to change. This can be seen in the sprawling development around our cities. Ultimately, it is running up against these limits that is going to force change. The growth pattern of urban sprawl consists of a series of ever-expanding rings around a decaying urban core. This kind of development causes greater segregation and homogenization amongst human populations.

In Chattanooga, the problem was addressed through a proactive, citizen-based process. Rather than staying divided, the citizens of Chattanooga sought win-win solutions. Instead of making compromises between environment, economics, and people, solutions were defined and solved inclusively. Mr. Crockett referred to the Iroquois Nation proverb that considered the effects of every decision on the next seven generations while acting from the experience of the last seven. This long-term thinking provided the foundation for Chattanooga's sustainable development plans.

In 1969, Chattanooga was identified as having the most polluted air in the country. Additionally, the inner-city faced the challenges of urban decay. Today, the Environmental Protection Agency refers to Chattanooga as one of the nation's success stories, being one of the few Eastern American cities with over 100,000 residents that is not on the EPA non-attainment list for air quality violations. The effort to clean their air has been a boon for their economy, helping to rejuvenate their downtown district.

The following are some secrets to Chattanooga's success with sustainable development:

- **Public-private partnerships** brought together government, industry and community members to create vision and change.
- New **recreational opportunities**, including a privately funded aquarium which includes play space, indoor aquatic ecosystems, and an adjoining river walk which connects people to the Tennessee River. The river walk has stimulated public interest in the clean-up of the river and has created pedestrian zones which help to stimulate economic activity in the downtown area.
- The city pursued aggressive approaches to **low and moderate income housing** through public/private partnerships which provided 2500 low-interest loans for the acquisition and repair of homes.
- Electric buses provided free **public transportation** to the downtown area. The buses were built by a local company and funded by a city contract. The

buses reduce parking burdens and, because they are free, encourage mass transit.

- **Eco-Industrial park zones** used advanced design technologies to strive for zero waste, zero emissions, and zero accidents.
- Active **public participation** was an essential component of Chattanooga's efforts to become a green city. People were asked to identify the types of places they wanted to see in the city. Visual preference surveys were given to a wide sample of the population and indicated preferences for more compact, pedestrian-oriented mixed-used development with its emphasis on greenways and aesthetically pleasing spaces over the conventional strip-mall subdivision development that is so common in America today.

Understanding what people in the community want is an important part of initiating responsive design. Futurescapes were used in Chattanooga to develop a common view. In overwhelming numbers people preferred sidewalks, greenways connecting towns, and dedicated bike paths. Sustainable options such as these require asking a different kind of question. Tennessee's clover leaf freeway is the "perfect solution" to an improperly asked question. Instead of revitalizing the city, solving traffic problems, and creating better community, it increased air pollution, took more people out of the city, and exacerbated traffic congestion.

Today, the Citizens of Chattanooga are asking the right questions. Their success was not a matter of compromise or slowing down growth, but about a paradigm change which involved new approaches to politics and infrastructure, making both work for the community. "That is a good piece of work," Mr. Crockett proclaimed at the end of his speech, remarking on a picture of the Chattanooga river walk, with bridge and trees and a child and parent, together, fishing.

CAROL FRANKLIN, ANDROPOGON, INC.
"Restoring the Community Landscape"
Summarized by Brad Masi

Before Carol Franklin's public address, she walked with about 30 residents to tour open space in Oberlin. The tour included stops at the Pyle Reservoir and the Bike Path entrance on Pyles-South Amherst Road. She made several recommendations for the sustainable management of these two sites. Following is a summary of some of her recommendations:

Pyle Reservoir:

- Work with the Ohio Department of Natural Resources to work out an alternative management plan for the reservoir.
- Create a second bank for the reservoir that will secure the structural stability. Between the original bank and the second bank, the area surrounding the reservoir can revert to a more natural state without threatening the structural integrity of the reservoir.
- Instead of mowing the entire area, let more native grasses return and mow zones for people to walk; replace turf with native grasses
- Decide as a community the future use of the reservoir and determine a management plan most consistent with a desired public use.

Bike Path:

- Clear away invasive and exotic species
- Return the canopy around the bike path
- Partner with the Ohio Department of Transportation and the Department of Natural Resources to gain approval for alternative management approaches
- Include a border of tall grasses that will foster a more natural habitat
- Maintain security by managing the density of surrounding hedge-rows
- Use geotextile fabric beneath the soil immediately surrounding the bike path to prevent damage to the path from ground rodents
- Create a volunteer network of local citizens to plant wild flowers and maintain stretches of the bike path
- Start with smaller and more experimental zones and determine public response

For both projects, Franklin recommended designating experimental zones to try new management approaches. These zones should include signage to foster public education about sustainable land-management approaches. Additionally, Franklin suggested the establishment of interdisciplinary teams that consist of planners, ecologists, citizens, and engineers to plan the future shape and management of these places.

Franklin's lecture focused on water and water management. Water is an essential resource for the natural infrastructure of a community. Quality water management is key to the restoration of a landscape. It involves the preservation of biological diversity along stream, creek, and river corridors, and the management of storm water. Franklin suggested a paradigm shift in the way that we view storm water, seeing it as a resource rather than a nuisance that needs to be piped down stream and off-site quickly, becoming somebody else's downstream problem.

An effective water management program will begin with flood control and proper storm water management. We need to begin by re-thinking the standard approach of a water retention basin, which has the following problems:

- Run-off volume increases
- There is no recharge of groundwater
- It consumes a lot of on-site space
- It requires greater site disturbance

The flow of run-off can be reduced by restoring a native site and building more natural infrastructure. This has the following effects:

- reducing erosion which disrupts vegetative patterns
- increasing the infiltration of water into the soil (asphalt is 95% impervious and most turf grass is 80-95% impervious).

The return of native landscaping includes the following benefits:

- restores the unique natural character of Oberlin
- protects wetland areas (critical habitat for many endangered plants and animals)
- protects riparian zones along water corridors
- initiates contiguous islands of biodiversity

Franklin suggested the following policy options to secure a more sustainable approach to land-use:

- **Land-use planning:** reduce the need for stormwater run-off and management through careful on-site treatment

- **Roads:** install hedgerows along side roads and reduce the width of the standard road
- **Cluster development:** encourage concentrated patterns of housing and commercial development to preserve the natural qualities and patterns of an area
- **Circulation:** plan circulation and drainage infrastructure to maintain an area's natural character

Franklin ended her presentation by talking about the landscape plans for the new Environmental Studies Center at Oberlin College, which Franklin says will provide a demonstration for many of the key concepts of sustainable landscape management. The landscape for the center includes some of the following features:

- 1) **Water Management:** The landscape of the Environmental Studies Center will absorb water and release it slowly, reducing the volume and speed of storm water run-off. Rainwater will be collected on-site in a small wetland and re-circulated for non-potable uses in the center and around the landscape. Excess water will be pumped into a storage container and used for irrigation. The use of sod roofs on the auditorium will also absorb water and release it slowly.
- 2) **Indigenous Landscape:** Through renewal of both understory and canopy tree species, students, faculty, and community members will be brought in close contact with their historical and regional landscape of Oberlin.
- 3) **Community Gardens:** Part of the landscape will be devoted to growing food, including vegetables, herbs, and fruits. There will also be a compost area and a small greenhouse or cold frame for winter use to extend the season. The water captured in the storage tank and wetland will be used to irrigate the agricultural landscape of the center.

WESTON D. BIRDSALL- OSAGE, IOWA

"Energy Efficiency and Economic Development as Seen by a Small Utility"

Summarized by Sadhu Johnston

*"The difficulty lies not with new ideas, but in escaping the old ones"
- Keynes*

Osage is a city located in Iowa with a population of 3,500 people. It is located half way between Des Moines and Minneapolis. The gas and electric utilities are municipally owned, and governed by an autonomous board of trustees, that, once elected, have complete autonomy. The system services 2,100 electric and 1,600 gas meters.

In response to rising oil prices in 1974, the utility initiated a city-wide demand-side-management campaign to lower energy usage, both in residences and in businesses. As the program progressed, they noticed that it had the effect of circulating more money in the local economy. In Osage, 82% of money spent on natural gas and 53% of money spent on electricity immediately went out of the state. Through conservation, Osage citizens saved money, preserved the environment, and supported more local businesses. Overall, the program kept over \$1,000,000 per year in Osage, with a public outlay of only \$350,000 over an 18 year period. As a result, the average electric bills are 58% lower than rates of other Iowa investor-owned utilities. Citizens also learned that energy conservation does not mean freezing in the dark; it means being comfortable at less cost.

The demand side management program included the following activities:

- Insulation specifications were established for any new gas or electric heat customer (started 1975), including retrofitted buildings. Most homes since 1984 have exceeded the specs.
- Many ads and articles on energy efficiency were published in the local weekly newspaper.
- A bi-monthly newsletter was started in 1979, which is still printed. This newsletter provides information on energy efficiency.
- Regular talks on the value of weatherization were given to 15-20% of the adult population of the city.
- Electric test meters were made available at no charge to help customers locate inefficient appliances.
- Ground-level thermograms of exteriors of all heated buildings were made in 1985.
- Energy checks with a hand held scanner were conducted, free of charge. Nearly 60% of the homes in the community were checked.
- Scans of the cities electrical distribution were made to reduce line loss. This was partially responsible for a reduction in "unaccounted for" loss from 16% to 4%.
- Street lamps changed to high pressure sodium, which paid for itself in 4.5 years.
- The utility went to local schools teaching kids about energy conservation techniques. Teachers also included it in their curriculums.
- The utility set up a load management program, which was able to cut electric peaks from 7-9%. This was voluntary, yet 96% of all central air conditioners are under control, with no financial incentive except the one time gift of a water heater jacket or two compact fluorescent light bulbs.
- Home weatherization was done for low income houses with the help of the local Junior Chamber of Commerce.
- Water heater jackets were installed on most of the water heaters, both gas and electric. (the jackets have an R-11 and cost \$10, they can save between \$10-\$30)
- 750 compact fluorescent light bulbs were given away, which saved 150 tons of coal from being burned. A rebate program to encourage local businesses to sell these light bulbs was also started. (over 1,000 bulbs are now in use in Osage, reducing coal consumption by 200 tons, reducing CO₂ atmospheric pollution by 750 tons. Over its lifetime of 10,000 hours, one 18W compact fluorescent can save enough BTU's to fuel an American car for a 1,000 - 1,500 mile trip.)
- A tree planting campaign was started to improve future air quality and reduce the heating needs of buildings.
- Complete energy checks by professional engineers were made available to all industrial accounts. (Fox River Mills has reduced utility costs for knitting a dozen pairs of socks from \$.48 to \$.34, a 29% reduction) That's an energy savings of over \$180,000 per year for them. They have since increased employment from 110 to 400 people.
- The utility also offered to help commercial accounts by paying two years' interest on the cost of extra energy efficiency improvements. Half the cost was covered by an Iowa's Dept. Nat. Resources grant.
- In 1992 the utility gave away low flow shower heads, which could save a family up to \$102 per year for an electric water heater and \$55 for a gas water heater. They distributed a total of 2,300 shower heads including 60 to the school system. Along with these efforts, they gave away several hundred booklets entitled *30 Simple Energy Things You Can Do To Save The Earth*.
- The utility stressed making existing business more competitive by keeping money within the local community instead of spending money to attract new business.

Throughout the country, Birdsall noted that we are witnessing an energy efficiency revolution.

- Some utilities are finally realizing that efficiency is cheaper than building power plants.
- Industries are realizing that efficiency can appreciably improve their bottom line.
- Individuals are reducing their cost of living and not freezing in the dark.
- The Osage energy program is an economic development program, because the money saved remains in the city and state to support other economic activities.

**ED SMELOFF, SACRAMENTO MUNICIPAL UTILITY DISTRICT (SMUD)
"Reinventing Electric Utilities"**

Summarized by Joshua Reed:

SMUD and Utility Reforms:

The Sacramento Municipal Utility District (SMUD) is one of the largest utility districts in the United States. They supply several million customers and have a net income of 650 million dollars a year. In the late 1960's, they invested heavily in nuclear energy as a source for power. The poor performance of the reactor, high production costs, frequent breakdowns, and a negative public image brought SMUD to the verge of bankruptcy by the late 1980's. It became clear that using nuclear energy was a losing proposition, and they began to look for alternatives.

By leading the fight for utility reform, Ed Smeloff was able to restore SMUD's credibility, effectively introduce new techniques of power production, and get rid of their dependence on nuclear power. Because of the following methods, techniques, and strategies, SMUD was able to cut 387 Megawatts from their peak demand, satisfy customers, and serve as a national leader in utility reforms.

- Take advantage of wholesale power markets.
- Seek partnerships in cogeneration plants (manufacturers and other utilities)
- Increase customer options
- Decentralize and utilize a variety of smaller sources
- Capture local media support
- Play the market- buy competitively from other utilities that have surpluses
- Treat efficiency as a power source and encourage such conservation measures as: planting trees for shade, a refrigerator replacement campaign, and commercial and industrial retrofits
- Financially encourage non-utilities to produce cheap power
- Support advanced and renewable technologies, including: efficient combustion turbines, wind power projects, biomass waste methane recovery project, photovoltaics built on customer location, utility scale photovoltaic (PV) projects (400 kW plant), the integration of PV's into building materials, the establishment of a PV test site, the sale of PV's to customers at affordable prices, and the development of fuel cells.
- Encourage establishment of energy technology companies
- Involve public in policy making
- Address environmental concerns- invest in the future
- Avoid long term contracts
- Pursue customers in other districts
- Spread risk away from customers
- Make good investments

Deregulation:

There will be a new set of rules for electric utilities as the existing structure begins to break down due to de-regulation. The new structure will affect the following parameters:

Generation- competitive markets determine scheduling of power plants and investments in new sources of power

Transmission---regional or statewide transmission system operators coordinate power flows from power plants to local utilities. (Natural monopoly, set up on Federal level).

Distribution--local electric utilities maintain wire service and hook up new customers. (Continued local monopoly).

Power production is responsible for the following environmental hazards, which must not be exacerbated by deregulation:

- 70% sulfur dioxide and 33% oxides of nitrogen which contribute to acid precipitation
- 28% particulate matter
- 50% nuclear waste
- 23% toxic heavy metals
- 34% carbon dioxide from power production

In addition to potential environmental hazards, restructuring could have some of the following additional consequences:

- Commodity will be separate from delivery
- Lower commodity prices due to competition
- Shorter term commitments for power sources
- Customer choice of power supplier
- New products and services

Relative to the environment, deregulation could have some of the following effects:

- Nuclear power is being phased out
- Coal and natural gas vie to replace nuclear capacity
- Environment - improved air quality possible if environmental standards are consistent
- Energy efficiency - opportunity for bundling of commodities with facility management.
- Renewable energy production depends on public policy

Overall, deregulation can be a path towards a cleaner energy future as long as there are consistent and uniform environmental standards. Natural gas should be used a pivotal source between oil and coal and renewable energy. Green marketing must be explored effectively, and we must make informed choices.

MICHAEL KINSLEY, ROCKY MOUNTAIN INSTITUTE
"Paying for Growth, Prospering from Development"
Summarized by Manda Gillespie

Michael Kinsley, a consultant with the Rocky Mountain Institute's Economic Renewal Program, described the role-models in sustainable development, such as David Crockett and Wes Birdsall, as everyday people doing their part to make their communities better places. Sustainable community development does not require a team of experts but, rather, a group of committed and thoughtful citizens. To pursue sustainable economic development, we must overcome two common barriers: the belief that prosperity

requires endless economic expansion and our inability or unwillingness to work together for the common good.

Concerning economic growth, economist Herman Daly describes how growth can have different meanings. Growth as expansion involves getting bigger, increasing the number of people, of buildings, subdivisions, outlet stores, and general community size. Growth as development, however, is an increase in quality and diversity of community, and involves more income, more jobs, and more savings. Both types of phenomena can have benefits, but at what cost? Many communities build subdivisions in an attempt to increase the tax base. However, many studies indicate that subdivisions cost more than they bring in from taxes, before environmental and community costs are even considered.

Economic renewal focuses on qualitative development rather than exponential growth as the foundation for a stronger local economy. The four principles of economic renewal can be considered by examining a local economy as a bucket the community would like to keep full. The first priority of an economic renewal program is to plug the leaks. This includes resource efficiency, connecting suppliers with buyers, import replacement, and cash flow capture. Osage, Iowa and Eugene, Oregon are examples where this has been done creatively and successfully.

The second priority is to support existing business. Ithaca, New York, like Oberlin, is based around an academic institution and has exemplified this principle. Local currency, micro-loans, community supported agriculture, training in small business development centers, community development corporations, flexible management networks, and buying locally are policies which are supportive of existing business and thus the sustainability of the local economy.

Encouraging new local enterprise is the third priority of economic renewal and can include business mentoring, putting waste and hidden local assets and skills to work. Newark offers a good example of this in their recycling program which has established 1,000 new jobs and 80 recycling firms. Local enterprise is far more likely in an environment where the previous two principles are being practiced, creating a more attractive environment for new business.

The final priority, is to recruit businesses that are compatible with the community's principles. Industrial recruitment pursued without consideration of the cost to community standards or environmental values can create problems that outweigh benefits. Industrial recruitment, in general, tends to be high risk, high cost development that is pursued despite the vulnerability to the community because it can be politically safe and offer short term solutions to narrowly defined problems. Sustainable development strategies would suggest searching for many small solutions to comprehensively defined problems. Such development is low risk, low cost, and it makes communities resilient.

The economic renewal process involves: mobilizing the community, envisioning the community future, identifying resources, discovering opportunities, generating project ideas, and evaluating, selecting, and developing project ideas. Realistic projects that are beneficial to the community as a whole result from the economic renewal project. Economic success stories include: Alamosa, CO; Plateau Valley, CO; Snowflake, AZ; Saskatchewan, Canada.

Kinsley offered six recommendations for Oberlin to consider as it plans for future development:

- 1) Get fiscally responsible. This involves analyzing the cost of expansion, just in pure economic terms. Does this community know what urban sprawl will cost in hard numbers: police, infrastructure, schools, etc.? It will almost certainly cost more than it will bring in revenue. Is this a cost we are prepared to incorporate?
- 2) Develop serious zoning regulations and be prepared to say "no" to developments that are inconsistent with the future quality of life of the city.
- 3) Design expansion appropriately. Combine "today's technology and yesterday's community." This is a way of avoiding the soccer-mom phenomenon which is the result of suburbs and the over-reliance on cars.
- 4) Develop a resilient local economy.
- 5) Develop indicators of real progress. Kinsley suggested using a full-cost accounting model to tabulate the long-term, environmental, and social costs of various development options.
- 6) Oberlin needs to develop respectful collaboration amongst its many groups, public and private.

SYMPOSIUM ON SUSTAINABLE DEVELOPMENT: WORK SESSION SUMMARIES:

OPEN SPACE IN OBERLIN **Facilitated by Christie Vargo,** **Erie Shores Girl Scout Council** *Summarized by Brad Masi*

OVERVIEW OF OPEN SPACE IN THE CITY OF OBERLIN:

The discussion began with a presentation on the history of open space in Oberlin, given by Sigred Boe, acting chair of the Open-Space and Visual Environment Commission:

The open space and conservation commission, a five member commission, was appointed by City Council in 1970. The commission has the primary goal of preserving open space in and around the City of Oberlin. It also has the power to seek gifts of land or money for the City from public and private individuals and agencies; suggest purchases of land or easements on the land for open space purposes; and propose legislative mechanisms to preserve open space areas. In 1986, the commission took on the additional responsibility of maintaining the aesthetic quality of Oberlin's visual environment.

Open space, as defined by the commission, includes parks and playgrounds, agricultural land, bike paths, woodlands, nature preserves, wetlands, streams, gardens, both public and private. The amount of open space has a profound effect upon the quality of life in a community.

The City of Oberlin is blessed with extensive open space areas such as Tappan Square and an interconnected series of parks along Plum Creek, including Spring Street, Park Street, Wright, Martin Luther King, Depot and the Roadside parks. Oberlin also has three reservoirs which provide passive recreational functions.

Surrounding woods, agricultural lands, and natural open spaces gave Oberlin a sense of regional identity. In 1977, a plan for protecting open space from urban sprawl was developed for Oberlin and the surrounding three mile limit within which the City used to have subdivision jurisdiction. The plan for the green belt surrounding the city included recommendations to preserve the rural character of Oberlin while suggesting ways to join forces with the townships and not impose the city's authority on rural areas.

Recent accomplishments of the OSVEC include: preventing the sale of the Pyle Road Reservoir to the Oberlin Golf Club and designating it as a Nature Preserve. Also, the commission was instrumental in the creation of the Bike Path from an abandoned Railroad right-of-way.

The commission is currently working on a parks and recreation inventory. Additionally, the commission is investigating a possible return to a 5% set-aside for open space in a subdivision ordinance, which was taken out last year because of potential court challenges under Takings law.

As was revealed by an Open Space survey conducted by students in an Environmental Policy course at Oberlin College, there is a consensus in Oberlin on the value of open space. People in Oberlin appreciate open space areas and consider them to be a heritage to be passed on to their children. People also realize that Oberlin needs to develop a

comprehensive plan, find ways to cooperate with surrounding townships, and foster education on sustainable development options.

WORK SESSION SUMMARY:

The work session focused on four principle questions related to open space:

- 1) What is the value of open space?
- 2) What are the needs for open space preservation?
- 3) What are some strategies to preserve open space?
- 4) What next steps should be taken?

Open space was recognized as an important asset to the community because it provides:

- Solitude and connection to nature and natural processes,
- wildlife habitat,
- recreation,
- water quality and flood control,
- the preservation of the city's "natural infrastructure",
- a sense of historical continuity and regional identity,
- an economic development benefit by enhancing local property values, and
- a shared culture for a community.

The following needs were identified to strengthen open space in Oberlin:

- Wetland preservation and restoration,
- the development of a comprehensive plan that includes townships,
- greater access to all Oberlin residents to quality open space areas,
- farmland preservation,
- an urban growth boundary or contiguous greenbelt buffer around Oberlin city limits, and
- storm water management and maintaining natural infrastructure.

The following strategies were identified for increasing open space preservation:

- a) Identify opportunities for sustainable development which involves public and private partnerships. Economic, legal, and development issues need to be identified and considered in open space decisions.
- b) A clear city council policy on open space needs to be set-down
- c) An urban growth boundary could be determined by referendum
- d) Township cooperation is essential for a comprehensive open-space plan. Some areas to consider include: revenue sharing when annexing, involving a township trustee on the open space commission, and involving residents of Oberlin in relevant township structures.
- e) A comprehensive survey could be conducted by college students and volunteer residents to determine: contiguous greenbelt development, zoning issues, a property survey (to determine ownership patterns along the greenbelt), and a sustainable land-use policy for Oberlin College property holdings
- f) Research tools are needed to create greenbelts; it is essential that citizens move fast, as land is disappearing rapidly.

The following next steps were recommended:

- a) Publish a summary of this meeting and of the symposium
- b) Set-up a follow-up meeting to talk through specific issues
- c) Identify key public/elected officials within the city, the townships, and the county.
- d) Have the open space commission review and update the plan originally developed in 1977 with community input.

- e) Involve students who can bring in new perspectives and talent

OPTIONS FOR SUSTAINABLE HOUSING
Facilitated by Elisabeth Dreyfus,
Grassroots Leadership Development Organization
Summarized by Sadhu Johnston

The following expectations and topics were suggested by the sustainable housing discussion group:

- Ideas-What's already being done?
- The near future-What can be done soon?
- Co-op-Projects-Specific Mechanisms
- Affordable Housing
- Community development

INTRODUCTION BY JEFF BAUMANN- Housing director for the City of Oberlin

We have to understand the place in which we live. That understanding should dictate how we build our houses. People's houses in this area were indirectly built in the flood plain, and, as a result, most basements flood. We need to be aware of the ecological conditions of the places where we are going to build or remodel houses and plan accordingly. We also need to think about where we get the building materials and consider their global and local impacts.

MODELS FOR SUSTAINABLE BUILDING:

The discussion started off with a lengthy discussion of the Environmental Studies Center and its related technologies. Some of the local builders (Builders Industry Association) and architects expressed strong interest in learning about the center and the technologies that it utilizes. It was recommended that the web page be used to notify the public about the progress of the center. The desire was also expressed for more local press coverage on the building.

SUSTAINABLE VERSUS AFFORDABLE HOUSING:

A distinction was made between sustainable housing and affordable housing.

- Sustainable Housing- Higher technology housing that has a lower environmental impact by using less harmful building materials and using energy, water, and materials efficiently.
- Affordable Housing- Housing that is made available to lower income families.

Historically the two have been viewed as different; perhaps this dichotomy is part of the problem. Perry Biccolo, a Chicago developer, builds houses that cost less than \$200 a year in energy costs. These houses cost only a fraction more to build than a less energy efficient house. This link between sustainable housing and affordable housing was targeted as the goal for future housing development in Oberlin.

COOPERATIVE HOUSING:

The OSCA (Oberlin Student Cooperative Association) Long Range Planning Committee was present during the meeting and voiced ideas of working with the city to purchase an additional house and convert it into a cooperative house that provides affordable, energy efficient housing to students and community residents. The organization already owns two student houses and expressed an interest in expanding to include non-student housing.

The question of funding for such a project was brought up. Possible sources for the funding of a project like this were: OSCA, Oberlin College, the Zion Community Development Corporation, and the City of Oberlin.

Baumann pointed out that the city is in the process of revising documents that dictate community development and housing in Oberlin.

NEW URBANISM:

New Urbanism was brought up as a goal for the future development for the city. It was defined as: a set of ideas that relate to urban living. It is a movement of people that have defined general ways of living that are more personal and human-scale. Ideas of small-scale community are tied to a physical, urban setting. It differs from the development of the last 50 years by restoring a sense of civic pride, focusing on the re-vitalization of cities and the preservation of agricultural land, and open space. It engenders a sense of place on a community-scale and provides a way to organize the community around a shared set of principles.

Concluding Remarks:

The overall outcome of the meeting was to bring the city, the college, and OSCA together to begin generating ideas for how to support housing that is both sustainable and affordable.

DEMAND-SIDE MANAGEMENT AND RENEWABLE ENERGY DEVELOPMENT

**Facilitated by Lisa Hong,
Ohio Environmental Council**
Summarized by Manda Gillespie

This worksession included guest speakers Wes Birdsall and Ed Smeloff, 3 City Council members, the head of the Oberlin Municipal Light and Power System, a BFI representative, a representative from AMP-Ohio, members of the Campaign for an Energy Efficient Ohio, community members, and Oberlin College students.

The worksession began with clarifying information on the breakdown of Oberlin's energy use. Presently the community receives 87% of its power from coal. Oberlin has experienced growth in the amount of electricity consumed even as population has remained constant. Reference was made to the Oberlin Community Energy Audit. During the worksession, concerns were raised on what would come in the future years as Oberlin and the rest of the country deal with the deregulation of the energy industry. In terms of Oberlin's energy needs, discussion focused on the need to keep rates affordable while improving the quality of life within the Oberlin community (economically, environmentally, personally).

Discussion at the Work Session focused on the following topics:

1. METHANE ENERGY:

Methane gas from landfills is a huge source of untapped energy potential in the state of Ohio. Currently, 150 MW/hr worth of methane gas is being vented into the atmosphere everyday in Ohio.

- Oberlin has the opportunity to buy methane from the BFI landfill to use for energy (or purchase electricity produced on site by BFI). City Council has appropriated \$25,000 for a feasibility study which will be conducted within the next year.

- One of the central aims of the feasibility study will be to determine the economic impacts of a methane generation project on Oberlin's rates. Because methane generation at the site of the landfill will be constant, the electricity produced there will not contribute to Oberlin's peak shaving. The cost of methane generation will be compared to the costs of energy received from AMP-Ohio's regional distribution grid.

2. COST CONTROL:

When consumption decreases why does cost not increase? At first it may seem counterintuitive that the best way for a utility to increase its profits can be through energy reduction techniques. Fixed costs for utility operations such as amortizations of capital outlays are included in the prices that consumers pay. As energy use increases, as it is in Oberlin, then utilities are forced to either build new power plants which involve large capital outlays or exploit other energy sources. It is more cost-effective to decrease energy use through active conservation education and energy efficient technologies.

3. DEMAND-SIDE MANAGEMENT:

80% of the money spent in the average community for electricity immediately leaves the local economy. Wes Birdsall indicated that in Osage, utility rates have not increased since 1979 and have actually been reduced 5 times since then.

Some strategies to promote demand-side management include:

- Working with the media to raise public awareness on the personal, environmental, and community benefits of energy conservation.
- Energy conservation helps the community by reducing overall energy costs. Programs should be structured to particularly assist low-income customers establish energy conservation programs in their own homes and thereby reduce their bills.
- Cooperation between the utility board, the utility, government officials, and citizens is essential so that public information will be consistent.
- Oberlin should promote energy efficiency through the local utility instead of bringing in an outside consultant.

TOWARD AN INTEGRATED FOOD SYSTEM FOR LORAIN COUNTY

Facilitated by Sharon Kleppel,

Catholic Action Commission

Summarized by Sarah Kotok

The focus of this work session was on re-vitalizing the rural agricultural economy as an economic development strategy and source of local employment and a method to avert increasing pressure from urban development. According to a report issued by the American Farmland Trust, Lorain County is one of the most threatened counties in the United States for agricultural land lost to urban development. The potential costs of this need to carefully considered. Out of an estimated 2 billion dollar economy for Lorain County, agriculture contributes to 77 million dollars or 1/3 of the total. Out of 291,000 acres in the county, 144,000 are used for agriculture.

The achievement of an integrated sustainable food system for Lorain County requires a greater association between people and their food sources. This will require education. Americans have become disassociated with food because of convenience of processed and supermarket foods. Our health as people is dependent upon the health of our land and the health of our communities. Kleppel suggested that sustainable agriculture was strongly related to economic development, education, health, culture, peace, hunger, and the environment. Each of these perspectives needs to be considered in order to contribute to a truly integrated sustainable agriculture and food system. It was suggested that our food system shift from a focus in feed grains for raising meat to grains and vegetables used for human consumption. Another suggestion was offered to diversify the use of traditional crops such as soybeans and corn for human use such as soy products and corn "plastics".

Shifting to a more sustainable agriculture will require us to face many challenges, including:

- overcoming public ignorance,
- reducing food waste,
- cutting the distance over which food is shipped,
- changing attitudes about food, land-use, and health, and
- overcoming the lack of infrastructure to support local marketing.

Some of the actions that could be taken to establish and support a sustainable food system include:

- Broadening the presence of local farmer markets,
- creating incentives for people to purchase sustainably produced foods,
- encouraging the production of organic food,
- demonstrating that a sustainable food system benefits everyone and can support small-scale entrepreneurs both at the producer and marketing ends,
- creating a volunteer network,
- increasing demand for local and organic foods,
- initiating and supporting urban, school, and community gardens, and
- diversifying the economy to support a sustainable local food system.

This workshop addressed some of the key issues of why we need and how to establish a sustainable food system. The work session participants agreed that more local support is needed for initiatives such as the Oberlin Sustainable Agriculture Project, which produces organic food through a community supported agriculture operation and operates the Oberlin Farm Market.

RURAL AND URBAN COOPERATION FOR SUSTAINABLE LAND-USE

**Facilitated by Dick Williams,
New Russia Township Trustee**

Summarized by Joshua Reed:

Introduction

Today, urban sprawl is encroaching on more rural land as the original suburbs of Cleveland continue to empty out and expand. Without adequate planning, we are recreating the same problems over again until little natural or agricultural land remains. Local conversations between rural and urban citizens need to occur throughout the county, focusing on such issues as economic development, open space preservation, agricultural land preservation, and potential economic ties between the townships and

municipalities. Throughout this process, it is important to monitor our ecological footprint and understand our impact for the sake of our long-term economic health and quality of life.

A central point of collaboration for Cities and Townships will be the sustainable use of land resources. This work session focused on the following categories:

- Identifying sustainable forms of land-use
- Supporting current forms of land-use
- Examining the advantages of rural-urban cooperation
- Determining the avenues for future cooperation

Identifying Sustainable Forms of Land-Use

Land is a source of revenue and it provides a means to pay for services and infrastructure that a community needs to sustain itself. Individual forms of land-use must be balanced with social and environmental considerations. Land resources must be conserved and managed wisely, maintaining environmental quality and future productivity. Ecologically critical areas, such as woodlands, wetlands, and stream corridors must be preserved. Additionally, agricultural land must be preserved to maintain a vibrant rural economy.

To best manage our land, it is important to:

- Understand the physical and ecological limitations of the land,
- Understand what areas of land are best suited for particular activities and uses,
- see land as an essential public asset, and
- maintain respect for both private property and public needs.

Supporting Current Forms of Land-Use:

- Land for housing and population should be contained in already developed areas
- Local markets, particularly in urban areas, should be created to support locally grown products to tie the urban areas economically to rural areas.
- Sustainable agricultural production techniques can provide a more efficient long-term and economically diverse use of existing agricultural land

Examining the Advantages of Rural-Urban Cooperation:

Rural and urban cooperation is integral for the following reasons:

- As a region, our economic fates are tied together
- We share common air, water, soil, transportation resources
- There are mutual advantages to becoming more economically intertwined
- We face many of the same issues and environmental problems, such as the pollution problems of the Black River.

Increased Cooperation Can Produce the Following Advantages:

- Increased communication and collaboration can decrease the competition for land and economic resources between the cities and townships.
- It will allow for revenue production while protecting land resources
- A more regional economic identity will enable us to work as citizens of the region instead of citizens of a township or city
- Individual action must be balanced with the health of the land
- A careful determination of the economic and financial benefits of cooperation is needed to get citizens involved

Determining Avenues for Future Rural-Urban Cooperation:

- Creation of an information clearing-house to assemble and distribute facts and impacts of different development choices. Information can be distributed through brochures, public forums, and a local speakers bureau.
- Education is important and communities must understand the long-term environmental and economic implications of sprawl.
- Inter-jurisdictional cooperation must involve constructive resolution of economic and political conflict.
- Successful arrangements evolve from smaller efforts to address existing problems.
- Some possible opportunities for cooperation include: joint economic development districts or recreation districts.
- Such mutual cooperation could strengthen our regional infrastructure and economic prospects.
- Elected officials from municipalities and townships must also become involved in the dialogue

Conclusion:

Oberlin City Council Chair Fran Baumann concluded the session by proposing that "City Council and the New Russia Township Trustees sit down and get something done. The longer we sit here, the more farm land and open space we are losing. We need some action." New Russia Township Trustee Dick Williams agreed. Avenues for cooperation between the New Russia Township and the City of Oberlin will be identified through future collaborative meetings.

A WORD ABOUT THE MEALS
By Eric Stewart
President, Oberlin Sustainable Agriculture Project

Two meals were prepared for the symposium: a dinner on Friday, April 25 and a lunch on Saturday, April 26. To uphold the principles for sustainable development at the conference, 95% of the ingredients for the meals was organic. Furthermore, most of the food items were purchased from local producers in an effort to keep our money circulating in the local economy. Eric Stewart, head chef and president of the Oberlin Sustainable Agriculture Project, prepared the following statement about the meals.

The food we eat represents our most intimate connection to the world. With this in mind, a conference dealing with issues of sustainability should deal practically with issues of food. In the preparation of the weekend's two meals, a commitment has been made to use foods which minimally impact our environment and our bodies. This means using organic foods, produced without chemical fertilizers or pesticides and locally grown food, which supports local producers. 95% of the ingredients going into these meals are organic and many of them are local.

Ohio produced foods of special note include: apples, goat cheese, chicken, ostrich, maple syrup, and milk. Many of the grains and beans used in the meals are locally produced as well. As initiatives such as the Oberlin Sustainable Agriculture Project grow in the coming years, we are confident that locally raised food will become ever more available.

In addition to the concern with local food, these meals also have a worldly focus. Many culinary traditions have been blended to create each meal. You may note strands of Italian, Latin, French, Thai, and Japanese cuisines. These are fused to create meals which are light, healthy, and satisfying.

When meat is used, it is done so in smaller amounts, playing a supporting rather than a leading role. This reflects the dietary habits of traditional cultures around the world. The meat served has been raised without the use of hormones or antibiotics.

The food may look and taste a different from much of the food served in America today. The intent is to create food that is a joy to look at and to eat. This food is an offering, a sacrament. It should nudge and pinch our awareness into the realization that in the giving of life for the sake of life, eating is enormously complex and elegantly simple. It is essential and humbling. It is beautiful; so is the world. We should treasure it. Food is precious.

SUSTAINABLE DEVELOPMENT IN NORTHEAST OHIO

Regional, County, and City Contacts:

NORTHEAST OHIO:

If you are interested in sustainable development as it relates to the region of Northeastern Ohio, please look into contacting the following resources:

Center for the Environment
Case Western Reserve University
10900 Euclid Avenue
Cleveland, OH 44106-4945
dac9@po.cwru.edu
Contact: David Cornicelli or Norm Robbins

Eco-City Cleveland
2841 Scarborough Road
Cleveland Heights, OH 44118
216-932-3007
ecocleveland@igc.apc.org
Contact: David Beech

LORAIN COUNTY:

If you are interested in sustainable development in and around Lorain County, contact the Seventh Generation Urban Sprawl Task Force.

Urban Sprawl Task Force
Seventh Generation
25 Lake Avenue
Elyria, OH 44035
216.322.4187
Contact: George Espy

CITY OF OBERLIN:

If you are interested in working on projects related to sustainable development within the City of Oberlin, please contact the Environmental Studies Program at Oberlin College. As a follow-up to the symposium, special task forces have been set-up to focus on: education, energy conservation, land-use, and a policy on sustainability.

Environmental Studies Program
Oberlin College
Rice 33
Oberlin, OH 44074
216.775.8409
pmasi@oberlin.edu
Contact: Brad Masi