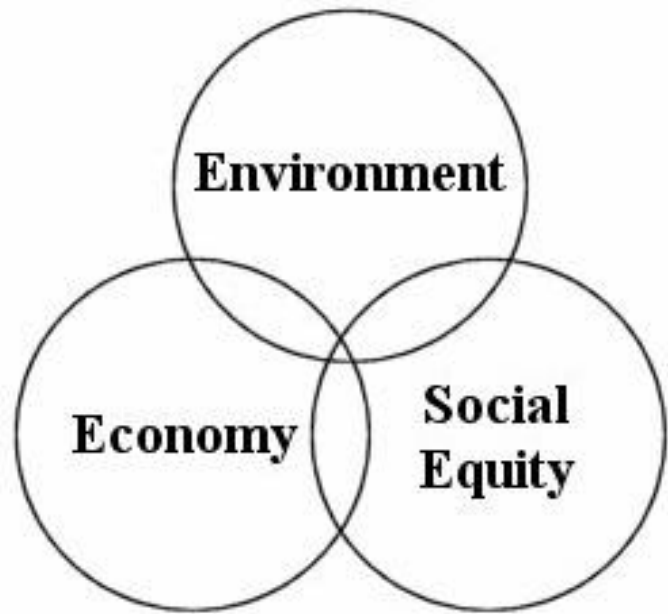


Report on the Status of Sustainability in Alachua County Government



from

The Alachua County Sustainability Projects Ad Hoc Committee

February 2000



Sustainable Projects Ad Hoc

Committee

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Norm Thomas, Assistant Director, Waste Management Div., Public Works Department
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Brad Guy, Director, Center for Construction and the Environment, University of Florida
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1) Purpose of Committee

In March 1999, a group of County employees, representatives of the business community, and private citizens began a series of meetings to discuss:

- 1 - An inventory of existing sustainability-related County activities.
- 2 - Policy or program changes that could help County government become a leader in sustainable practices
- 3 - County capacity to identify sustainability-related grant opportunities and write grant proposals

The following Draft Report is offered as a summary of the Committee's findings compiled between March 1999 and February 2000.

2) Definitions

The term "sustainability" is used in this document to describe those activities that include all of the following goals:

- Tend to improve social conditions for all kinds of people
- Increase economic opportunities
- Improve environmental protection or restoration efforts
- Will continue to have these effects for the foreseeable future

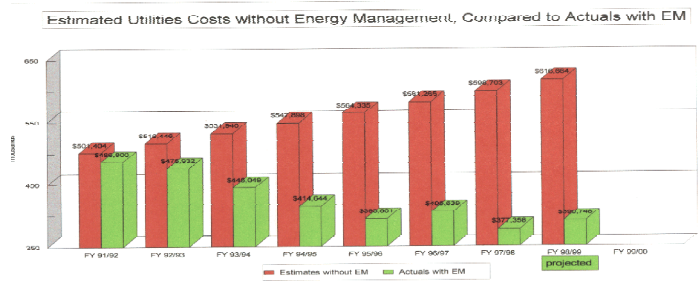
Not every activity listed in the inventory meets the three-way sustainability test of having long term social, economic and environmental benefits. However, they are all included such that consideration may be given to modifying an activity to better meet that three-way test and as part of an entire system's (County government's) eventual move towards sustainability.

3) Inventory of sustainability-related County activities

Highlights

Happily, a large number of successful sustainability-related County activities were identified by the committee. The highlights include:

- 1) A wide range of pollution prevention activities and natural resource conservation/restoration programs operated by the Environmental Protection Department.
- 2) Numerous waste reduction, recycling, public education, maintenance and fleet management techniques operated by the Public Works Department.
- 3) Innovative affordable housing initiatives and Comprehensive plan revisions being prepared by the Growth Management Department.
- 4) County wide delivery of social services based on equity, economic opportunity and environmental protection delivered by the Community Services Department. Similar social rehabilitative efforts by the Department of Court Services increase the economic viability of the recipients and of the community at large by reducing incarceration costs, increasing community in-services, and fees paid.
- 5) Tax Incentives: Tax reductions are available for lands qualifying as historic, High Water Recharge, Greenbelt, or for Conservation Easements and Economic Development Exemptions.
- 6) A very successful energy management/reduction program in certain County buildings operated by the Administrative Services Department. That Department is also advancing a system-wide imaging program that is drastically reducing paper consumption in some County offices.



SPECIFIC INVENTORY LISTINGS BY DEPARTMENT

Environmental Protection Department

Pollution Prevention

- . Electronics Demanufacturing Demonstration Project (current)
- . Latex Paint Reuse Project (current)
- . Electronics Demanufacturing and Latex Paint Reuse Programs (planned)
- . Citizens Reuse/Swap Shop at Household Hazardous Waste Collection Ctr. (planned)
- . Pollution Prevention Elements of existing hazardous materials mgt. programs (current)
- . Depot Avenue Brownfields Redevelopment program technical support (current)
- . Cities for Climate Protection Campaign (current)
- . Local Air Quality Initiative (current)
- . Local Air Quality Program (planned)

Natural Resources

- . Land Conservation Initiative technical support (current)
- . Land Stewardship program (planned)
- . Wellfield Protection program (current)
- . Wellfield Protection program enhancements (planned)
- . Santa Fe River Springs Working Group technical support (current)
- . Santa Fe River Springs Study Area monitoring enhancements
- . "Green" Site Development Elements of existing Development Review programs (current)
- . Sustainability Aspects of EAR implementation-related amendments to Comprehensive Plan (planned)
- . Wetland/Habitat Protection Elements of existing natural resources protection programs (current)

Public Works Department

Waste Management Division

Office of Waste Alternatives

- All Waste Alternatives projects and programs including, but not limited to, public education, business recycling assistance, and special recycling events (i.e., tire recycling, phonebook recycling, and Christmas tree recycling, cleanups). Promotion of source reduction and procurement of products made from recycled materials and recyclable.

Office of Waste Collection

- Big Blue and Orange bin curbside recycling program
- Collection of recyclables and household hazardous materials at Rural Collection Centers
- Neighborhood and illegal dump-site cleanups

Operations Division

Office of Parks and Open Space

- Rubberstuff™ playground surfacing, a crumb rubber derived from recycled tires, is currently being used at County parks. A softer alternative to sand, dirt, mulch, or grass, Rubberstuff™ is nontoxic, long-lasting, and requires very little maintenance. Plans for future applications are in the works.
- Rebound soil amendment, a blend of crumb rubber derived from recycled tires and organic compost, has been utilized at County parks. Rebound provides for turf management and maintenance which allows for reduced compaction, improved drainage, deeper root growth, enhanced turf, shock absorption, safer playing surface, and 30% less water and fertilizer. Plans for future applications are in the works.
- Sign posts, picnic tables, playground equipment and park benches made from recycled plastic lumber are currently being used at County parks.

Office of Road and Bridge Maintenance

- Practice contour mowing which encourages wildflower growth
- Minimize use of herbicides around road signs; no longer spray around head-walls
- Permanent molded mulch-rings made from recycled tires have been purchased for use around road signs. The mulch-rings are intended to eliminate the need for replacing or replenishing mulch around road signs, to provide road signs with protection against mower & trimmer damage, and to deter weed growth around road signs.
- Pick up old tires, gas tanks, dead automotive batteries, etc. from right-of-way and areas directly adjacent to right of way; most of this material can be recycled

Office of Fleet Management

- Automotive battery recycling program
- Used motor oil recycling program
- Used antifreeze recycling program

- Used oil filter recycling program (oil filters are made into rebar)
- Steel recycling program
- Utilize retread tires when applicable
- Oil spills are contained and cleaned up using PIGS (thick paper towel-like absorbents which are washed out in the parts cleaner and reused a number of times).

Administrative Services Department

Facilities Management (Energy conservation initiatives)

1. Installed a solar hot-water system for supplemental system at the Courthouse. This adds 80 gallons of solar heated hot water to an existing 120 gallon system.
2. Replaced an oil-fired boiler at the Courthouse with a more efficient dual-fired natural gas/oil boiler, primary fuel being gas and oil as backup. The boiler is a 1.5 million BTUH natural gas boiler with an efficiency of 85%. The replacement reduced the operational costs by approximately \$2.00 per hour, allowed removal of a 15,000 gallon underground oil tank, and eliminated the air pollution associated with oil combustion.
3. Installed a natural gas domestic hot water heater at the Courthouse to replace an electric unit.
4. Installed three new chillers. The installation of new chiller plants in the Courthouse and the Administration Building reduced the kW per ton from well over 1 KW/ton to .7 kW/ton.
5. Installed two energy saving Variable Frequency Driven (VFD) cooling towers at the Courthouse and the Administration Building. Further enhancing the chiller plants efficiency is the installation of two new cooling towers with inverter duty motors and a control package that modulates the speed of the cooling tower fan motor
6. Expanded the existing Energy Management Systems at the Courthouse and the Annex Building by converting all wiring to serve as signal controller.
7. Installed cooling tower make-up water credit meters. The cooling towers in both the Courthouse and the Administration Building use large quantities of water for evaporative cooling of the condenser water. Thousands of gallons are dissipated to wind or evaporation. Previously, we paid for water usage and wastewater treatment for the replenishment of this water. The cost of wastewater is 2-4 times that of water even though none went to the sewage stream. With credit meters we no longer pay wastewater for the water that the cooling towers use.
8. Installed sun screens on critical windows for solar heat gain dissipation at the Courthouse.
9. Installed LED exit signs at the Jail Facility, Main St. Legal Building and the Administration Building. Older incandescent fixtures consumed 40-50 watts. LED's are light-emitting diodes that give off no heat, last 15 years and use only 1.8-3 watts.

Information Services(Imaging Project)

In an effort to provide an affordable solution to reduce paper consumption, reduce costs, and

reduce warehouse paper storage while increasing access to documents through integrated document and object management solutions, the Imaging project was started in January 1998 at a cost of less than \$80,000 for Phase 1. The project will be planned and implemented in phases. Phase 1 was defined as a pilot project including seven County agencies; Phase 2 included seven additional agencies and started in January 1999.

Phase I

Planning, personnel, and technology initiatives. The scanning stations and the Imaging system were operational in March 1998. The County Attorney and the ASO Jail were the first agencies to accept Document Imaging as a way to reduce storage and increase access speed.

Phase II

Started in January 1999, seven more agencies were added including 25 users and 5 scanners. Additionally, a mass storage device for long term Optical storage was brought on-line in February 1999. The optical storage has an estimated 10 years capacity. Environmental Protection and Fire Rescue have led the implementation of Imaging for phase II.

Phase III

Scheduled for October 1999, Phase III will include remaining County agencies.

Growth Management Department

Office of Planning and Development

Sprawl Abatement

As the comprehensive plan goes through the required update and land development regulations are updated, County staff will be working on a variety of issues to enhance livability/sustainability within the community. These include;

- criteria to evaluate changes to the urban boundary based on need and achievement of other community values, such as protection of open-space, environmentally sensitive land and valuable farm areas
- revisions to existing policies and regulations to further discourage urban development in the rural portions of the County, providing greater protection to environmentally sensitive lands, open space and valuable farm land
- increase of residential densities along public transit corridors to support mass transit
- higher minimum densities and promotion of appropriate in-fill within the existing urban boundary
- inter-connection of pedestrian, bicycle, and vehicular circulation with enhanced inter-model links to transit
- enhancement of policies and regulations to protect environmentally sensitive lands such as wetlands, significant uplands, wild life resources, and preservation of open space corridors.
- regulations which provide more attention to “humanizing” the built environment including enhanced landscaping, tree protection, revegetation of areas including storm retention basins, greater limitations on signs, reduced and more sensitivity designed parking areas, and preservation of open space within developed areas.

Neighborhood Preservation/Affordable Housing

Currently staff is implementing affordable housing assistance through the State Housing Initiatives Partnership (SHIP) and a Community Development Block Grant (CDBG). Major areas of assistance include;

- down payment assistance
- emergency repair
- weatherization/energy preservation
- restoration of substandard structures
- The County is also drafting an affordable housing ordinance for BoCC review in early 2000.
- The County is also proceeding to conduct a historic structures survey with the assistance of a State grant.
- The County has also applied for an archeological study grant from the State to be conducted over the next year.

Design Standards

County staff is currently revising design standards to promote greater design quality relative to human scale, strengthening pedestrian access, and relationships between land use and structures including:

- reducing impact of automobiles relative to interconnectivity, parking location and number of spaces
- emphasizing support of transit, sidewalk continuity and multi-modal connectivity
- additional landscaping and tree canopy requirements
- increased tree preservation
- revegetation of development sites/provision of street trees
- increased use of shallow basin storm retention and revegetation of basins
- preservation of open space within our developed areas
- limitations and design requirements on the number and size of on-site/off-site signs

4) Policy or Program Changes

In addition to implementing sustainability initiatives because of their own inherent benefits to the community, the committee felt that other organizations were more likely to move towards sustainability if the County led the way.

Such issues as green purchasing, giving preferences to sustainable businesses, implementing design standards and sustainable construction techniques, and enhancing County economic development funding for locally derived sustainable enterprises are just a few examples of possible County leadership.



Here are a few others:

- Establishment of Sustainability Benchmarks and Indicators for incorporation into Alachua County government decision-making processes
- Use of GIS software to measure progress toward sustainability on a county-wide and project/decision specific basis
- Development of a "Green Building/Sustainable Development checklist for new construction and development projects
- Development of a Sustainability Team to advise the county commission and county manager on sustainability improvements for county government operations, facilities, and practices
- Development of an action plan for integrating sustainability principles into county development review and comprehensive planning programs and practices
- Conduct a baseline Alachua County sustainability review of county programs, policies, practices, and procedures to identify those that positively impact sustainability and identify those where improvements are needed to be more aligned with sustainability principles
- Institute a Capital Improvement Program (CIP) sustainability matrix as a tool to improve decision-making on Alachua County's investment in public infrastructure. The matrix would establish a systematic basis for understanding the social, environmental, and economic implications of capital projects
- Institute Alachua County sustainability demonstration projects related to water, energy conservation, procurement, transportation, land use planning, economic development, and ecosystems preservation and restoration. Examples: low flow plumbing, xeriscaping (less grass), replacing light fixtures, energy efficient building design and retrofit, energy efficient specifications for leased office space, replacing traffic lights with LEDs, green purchasing policies and procedures, recycling/reuse programs, transit and alternative transportation,

wetland and creek protection and restoration, stormwater treatment, environmentally sensitive land acquisition, building setbacks and environmental buffering requirements.

- Consider adopting the following principles in both the Comprehensive Plan and management guidelines for County operations:

Alachua County elected officials and staff will:

- 1. Encourage and develop connections between environmental quality and economic vitality. Promote development that reduces adverse effects on ecology and the natural resource capital base and supports employment opportunities for our citizens.*
- 2. Include cumulative and long term impacts in decision making and work to protect the natural beauty and biodiversity of Alachua County for future generations.*
- 3. Ensure commitment to social equity so environmental impacts and the costs of protecting the environment do not unfairly burden any one geographic or socioeconomic sector of the County.*
- 4. Ensure environmental quality and understand environmental linkages when decisions are made regarding growth management, land use, transportation, energy, water, affordable housing, indoor and outdoor air quality and economic development. Similarly, ensure that economic factors are considered when evaluating environmental issues.*
- 5. Use resources efficiently and reduce demand for natural resources such as energy, land, and water.*
- 6. Prevent additional pollution through planned, proactive measures rather than only corrective action. Enlist the community to focus on solutions rather than symptoms.*
- 7. Act locally to reduce adverse global impacts of rapid growth population and consumption, such as ozone depletion and global warming, and support and implement innovative programs that maintain and promote Alachua County's leadership as a sustainable county.*
- 8. Purchase products based on long term environmental and operating costs and find ways to include environmental and social costs in short term prices. Purchase products that are durable, reusable, made of recycled materials, and non-toxic.*
- 9. Educate citizens and businesses about Alachua County's Sustainability Principles and take advantage of community resources. Facilitate citizen participation in County policy decisions and encourage everyone to take responsibility for their actions that otherwise adversely impact the environment.*

5) Grant monitoring, writing capacity and project ideas

Purpose

The purpose of this inquiry was to determine:

- 1) if adequate staff resources are available to monitor grant funding opportunities for sustainable projects
- 2) capacity to write and submit grants in a timely manner so as to maximize the County's ability to win outside funding for innovative programs.
- 3) grant ideas the County could apply for that would advance sustainable programs development

Resources

With respect to the first two above items, the answer was fairly easy to determine. The County now contracts with Langton Associates for grant writing. Their workload appears to be fully allocated already. Additional resources at Langton, another vendor, or additional staff would likely be required for monitoring and grant writing activities.

Additionally, Langton officials indicated that the depth of knowledge required to effectively write sustainability-related grant proposals may limit their ability to assist the County with this type grant.

The Committee did receive a grant writing proposal from the University of Florida for the services described above. It follows here:

June 23, 1999

*Commissioner Dave Newport
Alachua County Board of County Commissioners
12 SE 1st Street, PO Box 2877
Gainesville, Florida 32602-2877
Tel: (352)-374-5210
Fax: (352)-338-7363*

Dear Commissioner Newport,

We are pleased to propose an agreement between the University of Florida - Center for Construction and Environment, and the Alachua County Board of County Commissioners, for the development of "sustainability" projects and grant applications on behalf of Alachua County and appropriate partners. We would like to propose a contract for a period of one year at an hourly rate of \$42.00/hour, plus \$50.00 per submitted proposal, subject to renewal at the end of that time.

Our scope of work would include research, organizing partners, and proposal preparation. As discussed, we are also a potential partner for the projects that fit our area of expertise in "sustainable" - development,

education, planning, indicators and environmental rating systems, architecture, construction, deconstruction and reuse of building materials. We would hope to include the Center in the conduct of projects as appropriate.

We are able to prepare proposals as directed by the BOCC and/or independently develop project concepts and applications to the appropriate funding agencies. The BOCC would be the lead agency on all proposals prepared under this agreement. We request a non-exclusive agreement, whereby the Center would continue to prepare proposals on its own behalf. Our fully-loaded rate structure is as follows:

Supervision	\$58.30/hr @	4%	\$2.35/hr
Research and proposal preparation	\$31.25/hr @100%		\$31.25/hr
Total Direct Costs			\$33.60/hr
Indirect Costs @ 25% s per State of Florida			\$8.40/hr
Total Costs (hourly)			\$42.00/hr
Expenses per proposal			\$50.00

As a guide to the costs per proposal, we estimate approximately 70 hours for each proposal, depending upon the requirements of the grantor agency, project complexity, research, meetings, and stakeholder solicitation. This translates to approximately \$3,000 per original proposal. In some cases, we expect an original proposal to be modified for submission to more than one funding source. We cannot make any guarantees for the success of any individual proposal. All proposals will be prepared to the best of our ability and targeted to the most appropriate funding sources. I have discussed this possible arrangement with Ms. Lisa King of Langton Associates, and she has expressed enthusiasm and willingness to work with us in this regard. We are willing to provide our Statement of Qualifications and recent grant-writing history for your information. Thank you very much for this opportunity to work with Alachua County in this regard.

Sincerely,
 Brad Guy, Interim Director

Center for Construction and Environment, University of Florida

Grant Ideas

Two ideas emerged from this discussion. They are summarized here:

PROJECT IDEA 1) Keeping Local Capital Local: Sustainable Housing and Jobs

Statement of the Problem (s)

There is a pressing need for construction skills and small business entrepreneurship support in Gainesville and Alachua County. The effects of "un-sustainable" housing, i.e. high operating and maintenance costs, transportation-inefficient locations, presence of un-ventilated gas appliances, indoor air pollution, and low-quality design and construction, are more likely to be experienced by those least able to afford alternatives.

The built environment consumes over 30% of all energy in the US. Construction and demolition wastes make up 30% of all wastes generated in the US. The US EPA ranks indoor air pollution, including toxic building materials, as one of the greatest environmental health threats especially for children.

The services, skills, and materials for "sustainable" or environmentally responsible building practices are a necessity if the County and City governments, local affordable housing providers, and the mainstream building industry wish to facilitate "sustainable" design and construction in Alachua County and the City of Gainesville. "Sustainable" includes equitable.

"Sustainable" economics requires that capital invested in creating affordable housing remain in the community by reducing operating expenses, developing local construction skills, and creating reused and recycled materials manufacturing and "green" technology small businesses.

Goals of the Program

- * Provide one new and one renovated "sustainable" affordable housing unit in Alachua County.
- * Implement hands-on training program for "sustainable" construction skills, including preservation techniques and "green" building construction techniques.
- * Assist in the creation of a long-term green building program for Alachua County and markets for "sustainable" small business development based on sustainable housing, including preservation, renovation, deconstruction, new construction, and secondary services.
- * Provide environmental education for members of the community involved in the construction industry. This includes deconstruction and materials reuse, remediation of lead-based paint, use of "green" materials and technologies, alternative water systems, energy-efficiency technologies and installation, indoor air quality practices and auditing, historic preservation skills, construction wastes management, and native landscaping and horticulture.
- * Development of long-term program that will provide the technical skills necessary for the building design, construction, and operation and maintenance for a "sustainable" construction industry in Alachua County.

Program Activities

- 1) Conduct Outreach through Santa Fe Construction Training Program, East Gainesville

Development Task Force, East Side Construction Academy, Community Outreach Partnership Center, Alachua Housing Authority, National Center for Construction Education and Research, Gainesville Builders Association, and the community-at-large.

- 2) Prepare Program training materials, "green" building specifications, and contractor bid and program agreements and incentives.
- 3) Identification and Acquisition of appropriate buildings and sites for renovation and new construction.
- 4) Secure Program Contractor Partners and formalize training/construction agreements.
- 5) Implement Training Program orientation, course work and field training/construction of renovated and new housing units (two (2) renovations and two (2) new housing units)
- 6) Market Program/Transfer Housing units to existing or new owners.
- 7) Analysis and Documentation of program/materials performance.
- 8) Roll-over Funds from sale of new and renovated housing units/additional subsidies to next program cycle.
- 9) Monitor Program Participants (individual or participating contractors) job/business development and implementation of "green" construction.
- 10) Monitor Housing Units and residents operation and maintenance performance (energy, water/wastewater, maintenance).

Total Budget = \$300,000 (two years)

Program Partners

- * Alachua County Board of County Commissioners
- * Alachua County Housing Authority
- * University of Florida - Center for Construction and Environment/Shimberg Center for Affordable Housing
- * Neighborhood Housing and Development Corporation

Additional benefits of program

- Training and development in horticultural industry, training and development in value-adding products from "waste" construction materials.
- Use existing Santa Fe CC and Loften Construction Academy Training, modules from National Center for Construction Education and Research, Center for Construction and Environment training. Work with Habitat for Humanity as training lab and with Neighborhood Housing

Development Corporation for apprentice sites. Habitat can also be partner for distribution of reused and value-added building materials. Match one-to-one ratios for volunteers and trainees on Habitat sites.

- Build new and find a vacant house to renovate without existing tenants. This provides training ground and the resale of the house provides income to the program. Deconstructions can be used as orientation.

PROJECT IDEA 2) “Sustainable World”

A Project of Alachua County Office of Waste Alternatives

OVERVIEW - Five-year vision

Waste Watchers’ SUSTAINABLE WORLD features outstanding public education activities for all ages and audiences. The location itself is designed and decorated to bring visitors into a “world” of recycling and waste reduction. The parking lot, picnic area, playground and explanatory signage are of recycled materials. The building is shaped and/or decorated to look like the earth. The central gymnasium-sized floor is covered by a map of the world (from *The World Game*, below). Visitors participate in activities (listed below) that help them to understand both the global and the local importance of sustainable living, all with a focus on waste alternatives.

ACTIVITIES

The current Waste Watcher activities will be developed for ongoing presentation at Waste Watchers SUSTAINABLE WORLD. Each of the following activities can be developed independently, with the goal of combining them in the SUSTAINABLE WORLD building. Once the building is open, scheduled activities will take place during the morning and early afternoon hours. Evenings and weekends could be open to the public.

1. **The World Game.** This interactive problem-solving group game focuses on environmental issues, with the goal of preserving soil, air and water. The target group for this activity will be middle-school students. Pre- and post-visit activities (including a newsletter, published 4 times a year) would be provided to teachers and group leaders. Other groups would also be able to sponsor additional versions of *The World Game*, including Ethical Issues, Political Issues, Gender Issues, Cultural Issues, thus generating income for SUSTAINABLE WORLD. By purchasing a site license that covers a 150-mile radius, the project could become self-sustaining within two years. (See video and supporting World Game material.)

2. **EarthQuest: The Challenge Begins.** Following up on the Waste Watchers’ 9/99-1/2000 venue at the Florida Museum of Natural History, this 5,000 sq. ft. exhibit will continue to educate younger audiences on the importance of reducing, reusing and recycling our waste. The exhibit is near the end of its tour of the US and Canada, and could find a permanent home in Gainesville, where it was created. Target age for field trips in Alachua and surrounding counties will be third grade, with pre- and post-visit activities. (See video and supporting EarthQuest material, including teachers manual.) (Also available: classroom newsletter, published 4 times a year)

3. **SUSTAINABLE WORLD Reusable Resource Center.** Gainesville will join a network of 12 Centers in Florida (and more than 30 in other parts of the US and the world) that share discards from manufacturers and businesses. The collection becomes a resource for student and teacher workshops, and is available on specific days to public and private schools as well as community organizations. This project could be developed in cooperation with organizations such as the School Board of Alachua County, Keep Alachua County Beautiful, and the Crown Region Environmental Education Service Project (bringing educators and resources together in 19 North Florida counties). (See summary of “How to Create a Reusable Resource Center.”)

4. **Waste Watchers' SUSTAINABLE WORLD Multimedia Center.** This 21st Century education center focuses on such documents as the Earth Charter (for a global perspective - www.earthcharter.org) and the Alachua County Historical Timeline (for local action - see enclosed copy). These documents become the core of multimedia educational activities coordinated through the Internet. The computer center will become a resource for teachers throughout North Florida and South Georgia, providing in-service training for the 4Rs Curriculum and other curricula. Waste Watchers' SUSTAINABLE WORLD will provide ongoing educational activities for teachers and students while they are still in the classroom. These could be developed in cooperation with organizations such as the School Board of Alachua County (SBAC) (<http://www.sbac.edu/~mobile/>), the Crown Region Environmental Education Service Project, Santa Fe Community College Community and Continuing Education, the University of Florida (UF)'s College of Education and the new UF Digital Arts and Sciences Program (see attached article).

5. **Waste Watchers' SUSTAINABLE WORLD Trading Center.** Items can be traded or purchased at the Reusable Resource Center. Items made from recycled content will be displayed and made available for purchase from the vendor both on-site and through the Internet. This project could be developed with RecycleFlorida Today.

6. **Waste Watchers' SUSTAINABLE WORLD Restaurant.** This restaurant will demonstrate a zero-waste technology, with signage explaining why and how. The project could be co-sponsored by a restaurant chain.

7. **Waste Watchers' SUSTAINABLE WORLD-on-Wheels.** A touring bus with computers and resource materials for connecting activities at Waste Watchers SUSTAINABLE WORLD with those at schools and community organizations. Special focus of mobile activities is on teacher in-service and after-school programs. Activities could be developed in cooperation with organizations such as those listed above, and such after-school programs as the 4H, YMCA, Scouts, Girls' and Boys' Clubs.
(<http://www.sbac.edu/~mobile/>)

6) Conclusions

Conclusions

- First, it is evident from compiling the inventory of sustainability-related County programs that there is no coherent planning or strategy guiding sustainable initiatives and activities in Alachua County government. While many positive programs exist, there is no overall goal or policy that has been articulated by the Board of County Commissioners to which all programs aspire.

While commendable, County staff's sustainability initiatives will by themselves be unable to develop a sustainable County government. In fact, it is possible that individual programs, while well intended, may work at cross purposes to an overall goal of increasing sustainability in County government.

Finally, if county-wide movement towards a sustainable future is the objective, the small municipalities must share in the ownership of the vision and the plan. While the County can provide leadership, significant change can only be effected by broad community visioning and planning.

- Second, once general goals are determined and adopted by the Board, the question of resources must be addressed. It is clear from this report that County staff is under-equipped (but certainly not unwilling) to implement an across-the-board sustainability strategy. However, given the cost savings derived from some of the programs discussed in this report, the question of funding sustainability initiatives should be considered as a net revenue source, not as a cost issue for County government.
- For sustainability to be accepted community-wide, citizens must be able to see its effects not just on government, but on the community at large. Hence, indicators of the communities economic vitality that results from sustainability initiatives should be identified.
- Third, grant funding opportunities for sustainability initiatives are increasing. However, the County currently has little capacity to monitor funding opportunities, adapt program ideas to funding sources, write the grant proposals, and implement the programs. These funding opportunities could create many opportunities for County cost savings, community improvement, and leadership.

7) Recommendations

Recommendations

- 1) Create a County Sustainability Team to assist in goal setting and implementation activities. The existing ad hoc committee could be tasked by the Board to compile goal suggestions. However it occurs, the Board must adopt and support implementing these goals within every facet of County government.
- 2) Facilitate a collaborative 75-year vision process between the County and all municipalities.
- 3) Design a suitable local sustainable economic development project and support it in order to demonstrate the economic and social virtues of sustainability principles. Either a new project or support of an existing initiative should be considered. Indicators of economic activity which reflect the project's impact on the local economy should be tracked.
- 4) Select a site for a Sustainability Center and support its development. Either an evolving site (e.g., Old Depot, Summer House, or Commerce Building), or a new initiative.
- 5) Increase the County's monitoring of grant-funding opportunities, grant-writing capacity, and emphasis of partnering with other local governments, community groups, and the private sector in grant projects. Outsourcing grant-writing services should be expanded. Coalitions with sustainability-oriented organizations can lead to increased awareness of funding opportunities, innovative ideas, and community leadership.

8) Appendices

APPENDIX 1

Sustainability: Five Strategies for Reinvention

by Jacquelyn A. Ottman

Environmentalists can be described as "efficiency experts in green cloaks". They share scrooge-like tendencies with the best financial officers: both hate waste with a passion. Whether it's energy wasted from lights that burn when no one's in the room, or products that get disposed of long before their time.

Efficiency will be critical to product development efforts in the years to come. Some experts estimate that to meet the needs of sustainable development, we will need to improve the efficiency of our current economic system by a factor of 10 or even 20. To achieve such efficiency, we will need to not only modify existing products, but also develop entirely new ways to meet consumer needs. This will take the form of new product concepts (email versus air mail, for example), new technologies, like new energy and transportation forms, as well as changes in consumer life styles.

The potential for more efficient products and technologies is described by the *Harvard Business Review* as "the biggest opportunity in the history of commerce." As the world searches for ways to develop sustainably, particular opportunities will emerge in the areas of energy efficiency and renewable energy, alternative agriculture, recycling, mass transportation and information technology.

Pioneers in the development of new products and technologies will likely be rewarded with opportunities to develop new markets, reduce costs, change the rules in their industry and better products with enhanced customer satisfaction.

The potential for efficient and hence sustainable, products to enhance customer satisfaction can be viewed in several ways. Efficient products provide less of what customers don't want. Dell understands this. They build each computer from the ground up to the exact specifications of their customers. Efficient products are cheaper to operate -- like computers that power down when not in use. They are also cheaper for the consumer to dispose of because they might not have unnecessary packaging, or are taken back by the manufacturer for recycling or reuse. How many readers have paid to have a mattress or refrigerator picked up? 4200 communities now have "pay as you throw" waste disposal fees, so waste disposal is a genuine consumer need.

Efficient products are also guilt-free, because they don't make consumers feel guilty to use or throw away. Today, 82% of Americans agree that "most of us buy and consume far more than we need" and 58% of adults agree that "It would make a big difference in the helping the environment if we taught our children to be less materialistic." So guilt-free products can

help generate customer loyalty. Church and Dwight, makers of Arm and Hammer brand baking soda and other products estimate that the loyalty of their customers who appreciate their company's clean and green image translates into 5-15% more revenues, or \$75 million per year.

Marketers looking to streamline existing products and incorporate efficiency into their new product development efforts can use strategies incorporated into our firm as part of J. Ottman Consulting's Getting to Zero Environmental Innovation Process, as follows:

1. Set Outrageous Goals

The kind of goals that make people drop their jaws in disbelief.

Aggressive goal setting forces individuals to think out of the box for new solutions; minor modifications required for less aggressive goals simply will not be enough. Ask: what would we do differently if we had to eliminate waste, water, energy or another environmental impact by 100% and still meet the needs of our customers?

If you asked this question about washing machines, for example, you might brainstorm your way from energy and water efficient machines and cold water detergents all the way to clothes that get clean in the dryer or even specially treated clothes that don't get dirty at all. Environmental leaders DuPont and Xerox know the value of setting outrageous goals. Their environmental goals are "zero waste," and "waste-free products from waste-free facilities." Aggressive goals like these send a message to stakeholders that a company is serious in its intent.

2. Think Like a System

Look beyond your product in isolation, to the entire system in which it operates. To make sure that customers get a good hot cup of coffee, coffee marketers can consider the temperature of the customer's refrigerator, water hardness, the kind of cup that's used as well as the sweeteners or whiteners. P&G recently teamed up with Maytag to develop Tide HE (High Efficiency) to complement Maytag's new Neptune ecologically correct washer. In the Netherlands, Huib van Glabeek, designed a combination toilet and wash basin that saves space and water: the waste water from the basin is used to flush the toilet. The waste water is stored in a reservoir that represents the combination basin stand and toilet cistern.

3. Dematerialize

Meet your customers' needs with as few resources as possible. This suggests opportunities for miniaturization like superconcentrated laundry detergents, as well as for multipurpose products like solar panels built into wall siding.

The biggest opportunities for efficiency, however, come from substituting know-how and service for material products. Seeing the writing on the wall, Volvo has redefined its business as "transportation", not "combustion engine vehicles." They are now developing mass transportation systems for China and global positioning systems to get vehicles and shipments from place to place more directly. Seeing that service sales are growing faster than the products, IBM is looking to grow its share of the market for electronic commerce, which is expected to represent \$10 billion by 2000. An auxiliary strategy is to offer "products of service." Car

leasing and copier leasing are two examples. In the U.S., Interface, the leading manufacturer of commercial carpeting has recently inaugurated an innovative "Evergreen Carpet Lease." Customers lease the carpet and accompanying maintenance services. Interface retains ownership of the carpet, and takes it back after use for additional uses or recycling, thus retaining the value of the carpet as an asset and controlling all liabilities of the carpet in landfills. To assess the potential of this strategy for your own business ask two questions: Do consumers really need to own our product or is leasing an alternative? Can our product's function be equally or be better met by a service instead?

4. Make it Fit

Albert Einstein said, "Make things as simple as possible and no more." From the standpoint of environmental sustainability, this means making products fit consumers needs as closely as possible. This strategy makes the case for appropriate technology. It can be argued that combustion engine vehicles represent too much technology and resources for most of the transportation needs they fill day-to-day. Electric vehicles are far better suited for short trips and local commutes ^; suggesting an alternate market positioning for electric cars, which are currently positioned in the U.S. as exact substitutes for combustion engines, but due to their higher costs and need for frequent recharging are no match for their counterpart's economy and convenience. This strategy also has implications for localized technologies, especially for renewable energies like solar, wind and hydro.

5. Restore

Current environmental product efforts are initiated with a goal of minimizing environmental impact. The underlying assumption is that products use up resources and create waste. But why must this be so? Why not develop products and marketing programs that can actually add something back to the environment or society? Marketing programs that give money to worthy causes or educate on important environmental issues can help consumers offset the effects of their consumption. From the literal sense, golf tees made from biodegradable cornstarch can even be thought of as little vitamin pills for the golf course. In the U.S., Hannah Anderson, a catalog retailer of children's clothing encourages consumers to send back used clothing and offers a 20% discount on future orders as an incentive. The company then sends the clothes to the poor in a program which they call "Hannahdowns." In the U.K. an inventor developed the BayGen radio as a vehicle for bringing information about AIDS and birth control to people in developing countries, where there are few batteries and no facilities for recycling. His radio relies on an old fashioned clockwork mechanism. One winds up the crank for 25 seconds and gets 25 minutes of playing time. Extending the social benefits further, the radio is made by disabled workers in South Africa.

Conclusion

Sustainable development represents an opportunity to develop better, more efficient products. Strategies are at hand to drive innovation along a new paradigm that says products don't have to be disposed of. They can be more

useful to society is they are reused or remanufactured. Consumers needs can be profitably met with services in addition to products or an optimum combination of both. A new paradigm that says consumers will reward businesses that help to restore the environment as they take its resources to create the products they want.

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