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SfAA/EPA Fellowship Final Report

Introduction

In this final report I describe the design, setting, and results of an application of some rapid assessment procedures in the neighborhoods surrounding the Poinciana Industrial Center in northern Dade County, Florida. The study was conducted as part of the second phase of my SfAA/EPA Environmental Anthropology Fellowship in association with the Governor's Commission for a Sustainable South Florida. The data gathering techniques employed in this research design were intended to elicit primarily qualitative or descriptive information on social organizations and attitudes which impact on Commission efforts. This qualitative information could prove quite helpful in the formulation of outreach messages intended to communicate Commission objectives to residents of the region, and to elicit their participation in those objectives. Of potentially more importance, however, are the methods used to gather the qualitative information described herein. These data-gathering methods are designed to be applied in a relatively short time by individuals with very little prior training in ethnographic techniques. It is my hope that these methods will be combined with the social marketing procedures likewise described herein to promote awareness of, and participation in, brownfield redevelopment efforts in similar communities throughout the region. This report is presented in three sections; in the first section I describe how the background and organizational culture of the Governor's Commission have led to this research, in the second section I summarize my research design and findings, and in the third section I recommend how the Governor's Commission might use these findings to formulate its outreach messages according to the methods of social marketing.

The Governor's Commission

The Governor's Commission for a Sustainable South Florida (the Commission) was created by Governor Lawton Chiles on May 4, 1994 to satisfy eight tasks (Appendix A). The 42 member standing Commission was originally composed of 37 voting members from the South Florida community and five non-voting representatives of various federal agencies including the U.S. Environmental Protection Agency, the National Park Service, and the National Oceanic and Atmospheric Administration. The voting membership included representatives from the Seminole and Miccosukee tribes, the local agricultural and business communities, the South Florida Water Management District, regional planning councils, public interest and environmental organizations, elected state, county, and city officials, the Florida Game and

Fresh Water Fish Commission, and the Florida Departments of Environmental Protection, Community Affairs, Commerce, and Transportation. Since its inception, the Commission membership has expanded even more to include other state and federal organizations.

In October of 1995, seventeen months after its formation by the Governor, the disparate Commission membership produced an Initial Report that listed 110 recommendations for continued governmental efforts in the region. Many of these recommendations specifically dealt with the need to manage the water resources of the region more effectively by obviating some of the damage done by a system of dikes and canals built in the 1950s. The Central and Southern Florida (C&SF) Flood Control Project annually discharges nearly half of the water entering the Everglades (about four times the amount currently withdrawn for human use) to the ocean, while opening up much of the former wetlands system to human habitation and development. In its commitment to restoring the natural Everglades Ecosystem, the Commission echoed the primary goal of a Federal Interagency Task Force that had been created two years earlier to restore, preserve, and protect the South Florida Ecosystem in accordance with NEPA standards. This shared vision of hydrologic restoration brought about a close and productive working relationship between the two organizations.

It seems likely that this early and ongoing relationship between the Commission and the federal Task Force has had a significant role in shaping the manner in which many of the members of both organizations perceive Everglades restoration. For logistical reasons the monthly meetings of the Commission and a Task Force Working Group traditionally take place at the same locale, and during the same week. After attending many of these meetings over the years, most Commission members have become very comfortable using concepts and terms from physical sciences such as hydrology, biology, and environmental resource management. At the same time, many of these same members are less comfortable discussing or applying concepts from the social sciences, and for simplicities sake tend to equate the term "social" with "economic." This is despite the sincere efforts of a small number of Commission members headed up by Bonnie Kranzer, the Executive Director of the Commission, to defend and explain the role of social scientists in the management and restoration of the E.E. A symposium to discuss social science involvement in the restoration process is being planned for late February 1998 by Laura Ogden, consulting anthropologist to the Commission, and Karyn Ferro, a resource management specialist associate with the National Park Service. Hopefully the results of this symposium will be useful in exposing Commission and Task Force members alike to the current and potential roles of social scientists in regional environmental issues.

This study demonstrates one way that social science research can be used to achieve

Commission objectives, and is founded upon another set of recommendations outlined in the Commission's Initial Report. In contrast to the primarily hydrological and biological aims associated with the C&SF Project Restudy, these recommendations have to do with the social aspects of Everglades restoration, or what Task Force Executive Director Rock Salt has referred to as events "east of the levee." This includes efforts to transform the pattern of urban sprawl which typifies development in southern Florida by establishing boundaries to further western development, and motivating sustainable urban redevelopment in the regions east of environmentally sensitive areas. Colonel Terry Rice of the U.S. Army Corps of Engineers recently reported that the primary problem facing Everglades restoration is that "land use planning and conservation planning are totally delinked" (Deneen 1997). Members of the Commission's Urban Form Committee (now the Urban Issues and Quality Communities Committee) hope to relink these issues in planning future regional development patterns.

One of the proposals that originated from this group concentrated on the need for sustainable urban growth in an expanding corridor that presently extends along the southeast coast of Florida from southern Dade County to north St. Lucie county. According to a recent report, this relatively depressed corridor of land has been detrimentally affected by the past 80 years of westward development in the region (SFRPC 1996). This strategy was called the Eastward Ho! Initiative, and the area selected for redevelopment the Eastward Ho! Corridor. In May of 1997 the Urban Form Committee published an Eastward Ho! Game Plan that identified the cleanup and redevelopment of lightly contaminated urban sites, or brownfields, as one important element in future plans to promote growth in the Eastward Ho! Corridor. The Game Plan suggested that an initial step in this direction would be to formulate a replicable method for identifying and involving local community entities in planning the redevelopment of local brownfields (Appendix B). The need for a procedure to involve local community residents in brownfield redevelopment became even more pressing as several events over the next two months increased the significance of a single brownfield in the Eastward Ho! Corridor.

In July 1997, the Florida legislature passed the Florida Brownfields Redevelopment Act (ss.366.77 - 376.84, Florida Statutes). This law permits private investors to redevelop lightly contaminated urban sites in the state without completely cleaning them up by applying the principles of Risk Based Corrective Action (RBCA). According to RBCA some alternatives to complete cleanup include such institutional methods of remediation as land use and deed restrictions, or such engineering methods as placing impermeable concrete caps over lightly contaminated parcels. Advocates of the new law point out that it complies with recent federal directives to find innovative ways to protect the public health while stimulating the economic

redevelopment of deteriorating inner cities (see for example Justice Breyer's 1993 comments). Critics of the new law contend that it is a new twist on a well-documented pattern of economic blackmail that forces the primarily minority residents of urban neighborhoods to accept local public health risks in return for local employment (see for example Kazis and Grossman 1983).

Although the primary difference between these two perspectives may initially seem to be whether or not the use of RBCA sanctions public health risks in urban communities, the real question is who gets to determine the levels of acceptable risk? All behavior involves risk, and risk assessment research is basically a comparative endeavor that evaluates and ranks different hazards against one another, and finally makes value judgements concerning the acceptability of these risks (Paterson and Andrews 1996). It has become a truism in risk assessment research that in our society people will accept risks from voluntary activities that are roughly 1000 times greater than they would accept from involuntary hazards (Starr 1969).   In the treatment of urban brownfields, the question thus becomes "do the members of affected communities have the opportunity to learn about, and influence, their own levels of risk by affecting the redevelopment strategies employed in their neighborhoods?"

The new Florida law attempts to answer this question in the affirmative by ordering local project administrators to invite public participation in the remediation process. It requires that they post public notices in potentially affected communities and form a local brownfield advisory committee to facilitate any public input. When a brownfield within the Eastward Ho! Corridor was selected to become one of the first to be remediated under the Brownfield Redevelopment Act, even this rather minimal procedure for eliciting community involvement has become a source of some controversy. The Poinciana Industrial Center (PIC) brownfield is located in a predominantly African-American district of northern Dade County called Liberty City, and although the advisory committee presently being considered does contain several African-Americans, none are residents of the Poinciana community, or even Liberty City. Although the new law does not explicitly mandate that the committee must contain residents of the affected community, this would seem to be a more effective method of community empowerment than selecting leaders from other areas with a common ethnic affiliation.

In August 1997, the need for an effective community involvement strategy became even more pressing when the PIC was accepted as a Brownfield Pilot Project under the EPA's Economic Redevelopment Initiative. This national program is intended to empower states, communities, and other stakeholders in the redevelopment of brownfields to work together in

creating a unified approach to site assessment, environmental cleanup, and redevelopment (EPA 1996). By promoting such a unified approach the EPA is seeking a new model for risk assessment and management which recognizes and responds to the perception and concerns of local residents. The assessment and remediation of environmental risks has traditionally been carried out without public input until, very late in the process, environmental risk professionals present their findings and answer questions at a public hearing. Often the demands and concerns voiced by local residents at such hearings are intensified by their marginal role during the risk assessment (Conrad 1980: 258). This is especially true when the management of environmental risks involves a strategy for the reuse of their source as is the case in brownfields redevelopment. Due in part to the growing popular concern and litigiousness associated with the potential influence of contaminants on the public health, the EPA and developers alike have become interested in involving local residents early in the redevelopment of brownfields.

The selection of the PIC means that Dade County could receive as much as $200,000 in federal funds over the next two years while producing a model for brownfields redevelopment that can potentially be used in similar sites around the nation. The County's Department of Environmental Resource Management (DERM) has begun plans to spend a significant percentage of the EPA grant educating the community and eliciting its participation in the redevelopment of the PIC. According to their proposal, DERM will design an outreach strategy to explain the results of a preliminary environmental risk assessment, and to address public safety and health concerns at public hearings and local community meetings in 1998.

These events presented me with an opportunity to serve the Commission while addressing a current social need with potential state and national-level ramifications. My association with the Commission and the EPA usually allowed me to participate in any local meeting or discussion on redevelopment of the PIC in the region. This element is often lacking in anthropological fieldwork, and I fully exploited it to state my position to decision makers that eliciting community participation often requires an enlightened and active outreach strategy. I proposed that project administrators who want to develop a productive dialogue with an historically marginalized public need demonstrate their sincerity by finding out what people think about their plans and responding to those perceptions in their outreach messages. With that goal in mind, I theorized that a combination of rapid assessment procedures and social marketing techniques would be an quick, effective, and replicable way to elicit community involvement. The following section describes the design, context, and results of a rapid assessment of the social organization and perceptions of the PIC community.

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Study Design and Results

 Rapid assessment (also referred to as rapid appraisal) procedures, or RAP, involve the use of basic ethnographic methods to gain a descriptive understanding of a situation to aid the design and implementation of further research or social change programs (for further discussion of descriptive research strategies in urban communities see Andranovich and Riposa 1993:49). RAP has been described as a "survey undertaken without questionnaires: (Shaner, Philipp, and Schmehl 1982:73), "first-cut assessments" (Conservation International 1991), and a way to "increase the opportunities for participatory programs, done best by outsiders jointly with the user themselves" (Cernea 1990:3). Anthropologists designed RAP for use in applied settings that preclude the use of time-consuming traditional anthropological research methods that also require expensive and intensive periods of training (Harris, Jerome, and Fawcett 1997). The actual techniques used in RAP differ according to the topic being investigated, but are all characterized by an association of three basic anthropological concepts: (1) a systems perspective, (2) triangulation of data collection, and (3) iterative data collection and analysis (Beebe 1995:42).

 The systems perspective includes an insider's view of the important elements of a community, their relative importance, and how they relate to each other. This perspective is in keeping with basic anthropological theory which views communities as composed of disparate collections of interconnected organizations. Some of those important elements or disparate organizations can be identified in advance through a review of the available literature and direct observation of the local community. In this study, a systems perspective involved understanding the unique social structure and dynamics of the PIC community. Some research questions included: What social organizations exist in the community? How are they inter-related? What feelings do the members of these organizations have concerning redevelopment of the PIC?

 The triangulation of data collection means the combination of observations from individuals with differing backgrounds, and/or using different research methods to provide cross-checks, and thus to improve the quality of the information gathered. Having team members of both genders representing various disciplines is one good method for triangulating data collection. Another way is to include key community members on the research team, a feature which also contributes to the sustainability of programs implemented using the data gathered (Chambers 1991:515). A third way to triangulate data collection, and the one that I used in this preliminary study, is to compare and contrast the information gathered using census and archival research, structured observations, and semi-structured individual and

group interviews.

The third basic concept, iterative data collection and analysis, can be thought of as the use of feedback from ongoing research to progressively refine the direction and scope of research questions as new information is gathered. An example of the utility of iterative data collection can especially be seen in research about matters of health, where appropriate questions can only be asked after learning how the local people perceive sickness and healing (Galanti 1991). In order to understand and act on new information in that way, RAP is divided into separate and discrete blocks or phases of data collection and interpretation. Decisions made at the conclusion of each phase of research included which questions to revise, and what methods or techniques to change, add, or delete.

The specific data-gathering techniques employed in this research were adopted in large part from a draft "Social and Cultural Profiling Guide" that is being assembled and edited by the EPA's Office of Sustainable Ecosystems and Communities. Ultimately, the Guide is intended to be used in conjunction with other community-based efforts to collect descriptive information on how local people perceive environmental issues. The data gathered by these techniques will be combined with data obtained from other sources in order to facilitate the development of community-based environmental protection efforts. Implementing several of the methods described in the Guide has allowed me to assess their utility in mapping community perceptions as they relate to the remediation and redevelopment of urban brownfields.

I began the study by visiting the neighborhoods surrounding the PIC at different times of the day over a three week period to observe resident behavior, and to decide how to go about setting boundaries for this study. Although the proposed redevelopment of the PIC will have an impact on people beyond the immediate neighborhood, I eventually decided to limit the study population to the roughly 2,000 individuals whose homes were immediately adjacent to the site. Social scientists who conduct social impact assessments generally agree that the locally affected population is a key analytical unit composed of people who will experience the most direct benefits and costs from a project (Stoffle et al. 1991). As a consequence of my early reconnaissance of the site I felt that those residents who lived immediately adjacent to the PIC composed such a population, and one that I could assess in about twelve weeks. During this same period, and indeed throughout the study, I conducted census and archival research over the Internet and at local libraries. This allowed for me to compare and contrast the regional and census data available on the local community with my own direct observations of the setting and behavior of the people who lived near the PIC.

My first observation of the site was that in this case the term "brownfield" is somewhat

of a descriptive misnomer. Although there are a few businesses on the site, much of the PIC was burned during riots in the early 1980s, and is now largely vacant and owned by the county. The brownfield is thus primarily a grassy open field that is bordered on all sides by busy streets and businesses, and it actually provides an almost park-like setting when compared to the expanse of sun-baked concrete that surrounds it. Over the following weeks I observed that the PIC community is composed of three discrete neighborhoods. On the northern margin of the site dozens of families live in privately owned, colorful houses on well maintained half acre lots. The southern margin of the site is dominated by the James E. Scott public housing project, one of the oldest and largest housing projects in the state with approximately one thousand people living immediately adjacent to the PIC. Both the residents of the private homes and the housing project are primarily African-American, although people of several other ethnicities are also present in small numbers. The eastern and western borders of the site are primarily zoned for business, however, on the northwest corner of the PIC a fluctuating population of primarily Mexican and Guatemalan immigrants live in a densely populated mobile home park.

These initial observations were roughly confirmed by demographic information available from the federal and state census bureaus. Over 90% of the residents of the census block were identified as African-American, and the majority of the remaining residents were described as Hispanic. Human populations are never delineated into neat census blocks, however, and in this case the PIC community is actually situated just on the northwestern corner of a much larger African-American community. Just across 27th Street immediately to the west of the site, and across 79th Street to the north, however, is a predominantly Hispanic section of northern Dade County. The Mexican and Guatemalan residents of Schmidt's Mobile Home Park on the northwest corner of the site thus do not compose an isolated enclave, but the edge of a large Hispanic neighborhood with its own set of stores and restaurants. These community members would thus no doubt remain unaware of any flyers or notices only posted (in English) at most nearby stores and restaurants.

There are several businesses operating on or near the PIC which employ and serve the needs of this disparate community. Among the businesses located on the PIC itself, most either repair or repaint automobiles, a few produce wrought iron security bars or deck furniture, and one is a central shipping hub for specialty foods. Many of these businesses employ local residents, and I noted the presence of these "resident-employees" as a social group with potentially differing perceptions concerning redevelopment of the site from other residents. A few local shops and restaurants bordering the PIC are frequented by the residents. For example, the African Food Market on the eastern side of the PIC is a 24 hour source of groceries, basic

commodities, and entertainment for the residents of the James E. Scott. At almost any time of the day or night a crowd of young men can be seen hanging out there, and well-worn paths cross the PIC connecting the housing project and the market. The El Unico restaurant on the western border of the site similarly provides food and fellowship for the Hispanic residents of the mobile home park, while a Popeye's Chicken on the northern border is the favored lunchtime meeting spot for workers on the site.

After several weeks of such direct observations I had sufficient information on the social organization of the community to make some initial decisions as to who to interview and where to go about doing so. Thus, over the next six weeks I conducted intercept interviews with a sample population of residents from each of the three neighborhoods including several who were employed at two of the automobile repair businesses operating on the site. These interviews were loosely structured around an interview guide that focuses on discovering these community members' thoughts and concerns about the proposed redevelopment of the PIC (Appendix C). At the beginning of the interviewing phase I interviewed residents at local stores and restaurants such as the ones described previously, as well as at church services and an NAACP meeting outside the PIC community. After about six weeks of such intercept interviews I began scheduling and conducting interviews with individuals who had been identified by previous informants, or who were difficult to approach using less formal methods. By the end of this study I had interviewed 51 individuals: 17 residents of the James E. Scott, 11 residents of the mobile home park, 8 who lived in the private homes along the northern border of the PIC, and 15 "informed informants" who worked with local residents in some manner or other.

The first question that I asked each PIC community resident after introducing myself and briefly explaining the purpose of this research was "What have you heard about future plans for the old Poinciana Center?" This question is primarily intended to set the frame of reference and serve as a effective starting point for subsequent discussions. Although I had no formal hypothesis, I was surprised to find that none of the residents I interviewed were aware of the proposed plans to assess, remediate, and redevelop the site. After the nearly universal "Nothing" as a response, my probers elicited a variety of differing rumors that these residents had heard within the past few years. The most common rumor was that the county was building additional housing on the site, and I suspected that these rumors might be based on a proposed plan to allow Habitat for Humanity to build on some parcels in the site. Most of the Hispanic residents I interviewed were relative newcomers to the community and said they were unaware of any plans for the area, and six were unacquainted with the official name of the site. Finally, many of the older residents who lived on the northern border of the site recalled that a

community development corporation had planned about ten years ago to bring in some big businesses, but none had materialized.

The second question that I asked each resident was "What kinds of new businesses would you like to see moved here?" I had designed this question with several probers in mind to guide each resident in choosing industries from a list that had been presented at Commission meetings as preferable for regional redevelopment efforts. I was forced to amend this scheme, however, when few of the residents that I interviewed chose such options as medical, import/export, or high technology industries. In fact, many of the young men that I interviewed from the housing project were obviously skeptical of the relative worth of this exercise, and responded cynically that it did not matter what they wanted. Many of these residents equated redevelopment attempts on the part of any governmental agency with previous examples of urban renewal that had destroyed minority neighborhoods. This perception was not, however, shared by all African-American residents. Several of the resident-employees who worked for auto repair shops on the site were supportive of further development in the region, and used their own experience to describe the types of jobs they felt should be brought to the region. These responses generally focused on *aspects* of potential positions rather types of businesses, and included such terms as "good pay," "on-the-job training," and "benefits." They usually had no preference as to any specific good or service that the industry they were describing might produce. The older, long-term residents I interviewed, on the other hand, were more likely to focus on the good or service provided by the new industry, and were especially interested in local medical care facilities, food service, and increased security.

The third question I asked was "What are some types of businesses you would NOT like to have here? Why?" This is another transitional question that allows me to broach the subject of pollution through probers, but because it is non-leading, it offers an opportunity to find if these residents will bring up the subject themselves. Most of the younger residents who had focused on job characteristics in the previous question now listed "low skill" or "low paying" businesses as unacceptable, while a few said any new business is good. Only a few of the long-term residents that I interviewed mentioned air pollution, or businesses that create bad smells, in their initial list of industries they do not want in the community. Even after I brought up the issue of pollution, the majority of the residents that I interviewed shrugged or otherwise indicated that this was not of primary concern.

The fourth question was "Have you ever heard about people getting sick from pollution around here?" I had included this question after observing that the PIC is a convenient playground and shortcut for the younger residents of the James E. Scott, while the mobile home

park is frequently bathed in fumes from the neighboring auto-painting businesses. Despite these observations, none of the residents that I interviewed from the James E. Scott neighborhoods were aware of any such cases, although a few suggested that they thought the "bad air" from the heavy traffic around the projects could be making some people sick. One of the residents who also worked at the site was angered enough by this question to cut the interview short, asserting that he thought I was a local reporter. Some of the Hispanic residents of the mobile home park knew of people who had been exposed to pesticides and had grown sick for a few days, but did not know of any local cases. Only some of the older residents answered this question in the affirmative, and they mentioned several former residents who had passed away from cancer that they suspected was caused by air pollution. In probers with the residents of the housing project and the mobile home park, it was most often young women who indicated concern with the potential health effects of pollution, and they primarily focused on their children's health. The lack of concern exhibited by most of the residents interviewed may be sincere or it may be due to a natural tendency for young men to downplay feelings of fear or concern, especially when speaking in front of their peers.

Of the last two questions that I asked, the first is designed to develop a "snowball sample" of additional individuals in the community to interview, while the second simply collected some good locations for any subsequent meetings. The questions were "If I wanted to find out more about this, who should I ask here in the neighborhood?" and "If someone wanted to organize a meeting about this, where should it be?" The responses to the first question reinforced my suspicion that although there may be formal organizations in the region that deal with issues of contamination and redevelopment, most community members remain unaware of them. Most residents did not know who I could speak to other than senior family members, a few mentioned local church officials, and some James E. Scott residents suggested the project's Residence Services office. This lack of consensus could represent a serious obstacle to any attempts by local residents to learn more about, or to offer input to, the redevelopment process, and seemed to reinforce the need for local representation on the brownfield advisory committee. Not surprisingly, responses to the second question were also extremely varied, but a pattern emerged as I looked over them over later. Most of the members of the James E. Scott listed local secular meeting places such as the Gwen Cherry Park, Elementary School, and the NFL Youth Education Town Center just north of the project. The Hispanic residents of the mobile home park and the long-term residents on the northern boundary of the site, however, listed several local religious centers. This information is obviously important in determining where to hold subsequent public hearings, or conducting listening tour meetings in the region.

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The final phase of the study took place over the last few weeks of my fellowship term, and involved the interpretation of the data collected for use in outreach messages. During this time I scheduled and conducted the last of the individual interviews, as well as two rather impromptu group interviews. The group interviews both took place at local restaurants when I bought lunch for some residents, most of whom had participated in the earlier individual interviews, and described my interpretations as to how the data obtained can be used in an outreach message. These were impromptu in that they were unscheduled, public, and very casual. On both occasions several participants left before the interview was concluded and other passers-by added to the conversation. The information obtained in these interviews was used to refine the interpretations outlined in the next section.

Interpretation and Recommendations

The study data indicate that the local residents of the Poinciana community remain basically unaware of governmental plans to remediate and redevelop the PIC. If Governor's Commission and Dade County DERM ambitions to stimulate public input in the redevelopment process are to succeed, they must begin by informing local residents of planned activities in the region. One customary method for communicating organizational objectives that has been proposed by both these groups is a public outreach campaign. The successful outreach campaign depends in large part on the creation of effective and well distributed messages that stimulate community-level comprehension and acceptance of organizational objectives. In this last section of my final report I describe how the data obtained in this study can be combined with social marketing methods to develop an effective outreach message to facilitate community participation in local redevelopment efforts.

To begin, social marketing involves the application of commercial marketing methods to the analysis, planning, execution, and evaluation of programs designed to influence the voluntary behavior of target audiences in order to improve their personal welfare (adopted in part from Andreason 1995:7). As with commercial marketing, social marketing methods rely upon the collection of information on the social organization, desires, and concerns of a target audience in order to design and market a product, message, or service more effectively. The methods and theory of anthropology have proven especially helpful in assessing and interpreting those sociocultural factors that affect the behavior of target audiences (Brown 1997).

After such information has been gathered, the next step in the social marketing approach is a careful segmentation of the local community into discrete sub-populations which share certain perceptions in regards to the redevelopment plan. It is very rare that all members of a

society share the same perceptions about the relative costs and benefits associated with a given behavior. By segmenting the audience into relatively homogenous subgroups, the social marketer can refine the marketing message and strategy to target those audience segments specifically. This refinement drastically increases the chances that the marketing campaign will produce changes in perceptions and behavior on the part of the consumers targeted.

According to information obtained from census data, direct observation, individual and group interviews, the PIC community contains several social segments for which separate outreach messages should be prepared. The data suggest that these segments can be effectively broken down by ethnicity and age into three separate populations: young Hispanic residents living in the mobile home park on the northwestern corner of the PIC, young African-American residents of the housing project south of the site, and older African-Americans living on the northern boundary of the site. By creating outreach messages which speak to the concerns and perceptions of these groups, and locating those messages in areas where these residents are most likely to see them, the designers of the outreach message are more likely to elicit participation.

In order to create outreach messages which speak to the perceptions of these audience segments, the social marketing approach envisions social change as a process of exchange. According to this concept, social change is composed of consumer decisions that are actually choices among alternative behaviors that have differing costs and benefits. For each alternative, the individual consumer contemplates exchanging "costs for benefits," in which costs equate to the price of the item, behavior, or mindset being marketed and the benefit is how that product tangibly improves the consumer's life (Lefebvre and Flora 1988: 411). The marketing exchange takes place when consumers are persuaded that the benefits of a specific product, service, or message outweigh its costs, and they voluntarily alter their behavior/attitudes to suit.

In order to persuade the residents of the PIC community to participate in ongoing local redevelopment efforts, outreach messages must be prepared which convince members of each social segment that the benefits of participation outweigh its costs. Offering the long-term residents of the site the opportunity to voice their concerns about cancer and environmental contaminants would be one effective example. Explaining to the young residents of the housing project that the new state law ensures them a voice in the remediation and redevelopment process is yet another. For the young Hispanic residents of the mobile home park, simply lowering some of the costs associated with participation by providing Spanish interpreters at local meetings may be sufficient. Other methods for lowering costs include holding several local meetings at times and places which allow working people to attend, offering child care at the

meetings, and allowing residents an opportunity to address decision makers directly.

A final element of the social marketing process that is applied to study data is the actual creation and placement of the marketing messages. The media and context with which a message is distributed can actually lower the perceived price of the behavior by locating it in a place where people congregate and are open to such communication. One of the most important aspects of message placement is finding a location where the consumers are in a receptive frame of mind (Sutton, Balch, and Lefebvre 1995). Many publically funded outreach efforts blanket a region with radio messages, television commercials, and flyers in the mistaken belief that such massive campaigns ensure attention. This overlooks the fact that most members of our commercialized society have developed an ability to "tune out" unsolicited information, and the more effective instrument is targeted at a specific consumer audience in a particular place.

The data obtained in this study can be used to select the proper media and locations for communication of the outreach messages. Flyers written in an appropriate language, containing relevant information , and posted in areas trafficked by the members of each social segment are far more effective than general campaigns at communicating specific messages. For smaller neighborhoods such as the long-term residents on the northern border of the PIC, hand-delivered circulars and door-hangers may be appropriate. I suspect that the message would be most effective is it looked locally-made and lacked the slick, "government-look." These media would have the additional benefit of spot targeting the selected community without involving the potential participation of a larger population that other media such as radio or television spots might produce.

Conclusion

In this final report I outlined a general strategy for assessing the social organization and perceptions of community residents for use as part of a larger procedure encouraging community participation in environmental decision making. It had been my hope at the beginning of the fellowship period to illustrate how the application of social marketing procedures to data obtained using rapid assessment techniques could elicit community participation in brownfield redevelopment strategies. Hopefully, as I continued to work in the region I will be able to assist in the application of such a procedure to the benefit of both local residents and the EPA.

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Appendix A

The Commission's 8 Tasks

1. Serve as a forum for coordinating the numerous efforts underway to study, restore, manage, protect, and preserve the Everglades Ecosystem (E.E.),

2. Identify opportunities for enhancing this coordination,

3. Assess the current status of the natural and urban environments in South Florida and rank current and future threats to the health of the E.E.,

4. Evaluate current comprehensive planning and regulatory programs affecting the E.E.,

5. Identify those economic activities in the South Florida economy which are compatible with fostering and achieving both a sustainable economy and healthy E.E.,

6. Solicit and provide opportunities for public input on key issues involved in establishing and sustaining a healthy E.E.

7. Recommend strategies for:

   a. Eliminating duplicative efforts among governments, agencies, task forces, and organizations,

   b. Increasing understanding of the E.E. and its relationship to other lands in the South Florida area,

   c. Restoring, managing, protecting, and preserving the natural resources comprising the E.E.,

   d. Guiding the appropriate use of land impacting the E.E.,

   e. Allocating natural resources to support environmental and urban systems,

   f. Promoting economically as well as ecologically sustainable development,

   g. Enhancing the public's understanding of the necessity for both preserving and restoring natural resources and supporting sustainable development,

   h. Implement additional actions deemed appropriate by the Commission.

8. Monitor the implementation of the previous recommendations.

Appendix B

Eastward Ho! Game Plan re: Brownfields

The Eastward Ho! Game Plan published in May 1997 lists potentially environmentally contaminated sites, or brownfields, as one important issue that needs to be addressed in order to promote prosperity in Southeast Florida. Dade County alone has identified more that 3,000 such contaminated sites to date. According to the Game Plan, some goals to be attained by the year 2000 include:

1. Completion of brownfield inventories in Dade, Broward, and Palm Beach Counties.

2. The passage of state legislation that facilitates the redevelopment of brownfields sites, while maintaining the appropriate level of environmental protection and addressing environmental equity concerns.

3. Designation of the Eastward Ho! Corridor as a National Brownfields Showcase Community.

4. The development and adoption of local government comprehensive processes for the assessment, designation, marketing, and reuse of brownfields, including community based planning.

5. The development of community involvement plans that explicitly identify community entities pertinent to the consideration of brownfields redevelopment proposals in specific geographic areas and establish procedural guidelines that will facilitate efficient community participation in the redevelopment plan.

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Appendix C:

Semi-structured Interview Guide (Revised 10-17-97)

I. What have you heard about future plans for the old Poinciana Center?

II. What kinds of new businesses would you like to see moved here?

III. What are some types of businesses you would NOT like to have here? Why?

IV. Have you ever heard about people getting sick from pollution around here?

V. If I wanted to find out more about this, who should I ask here in the neighborhood?

VI. If someone wanted to organize a meeting about this, where should it be?

NOTE: Previous to October 17, 1997 the interview schedule had included two additional questions regarding local resident's perceptions of the Everglades. I had added these questions after a meeting of the Commission's Outreach Committee on September 3, 1997 in which most committee members had felt that a single outreach message could be designed that would effectively communicate the importance of the Commission's objectives to the residents of south Florida. This outreach campaign is especially important for the Commission as it faces an uncertain future when the incumbent Lawton Chiles retires after the upcoming Gubernatorial elections next year By mid-October I had collected several responses as to which aspects of Everglades Restoration these residents felt were important and in early November communicated the information collected to the head of the Outreach Committee. I had hoped that such information would be used to design more socially relevant messages, but got the impression the decision had already been made, and thus did not continue this line of inquiry.