

WORCESTER DOMESTIC WATER CONSERVATION PROJECT

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WORCESTER DOMESTIC WATER CONSERVATION PROGRAM

FINAL PROJECT REPORT

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ALSO PRESENTED

Notebook of Relevant Local

PRESS AND NEWSLETTERS
ABOUT
WATER SUPPLY AND CONSERVATION
AND FAIR SHARE DEVELOPMENT CORPORATION
PRE - 1985 TO DATE

FINAL REPORT :
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Some Demographic Background about Worcester

Worcester, Massachusetts, is the second largest city in New England. It's population has grown over the last five years, and there were 7,570 new units of housing created during the eighties. The best estimate from the Office of Planning and Community Development is that the population is about 179,967. (In 1970 it was 176,572 and in 1980 it was 161,799).

The city is changing rapidly in ethnicity. According to the 1980 Census, 6.1% of the population was minority (mostly Hispanic). Estimates by the United Way based on school children indicate that the minority population was 13% in 1988 and is growing as a percentage of Worcester's population

The current median income for a family of 4 is \$30,530. In 1980, 14.2% of the population was below the poverty line (around 14% is the national average) and 11.2% of Worcester's families are below poverty. Many people in Worcester feel that the high cost of rental housing has greatly increased economic hardship in Worcester, so the poverty line data doesn't tell the whole story. It is estimated by the Worcester Committee on Homelessness that there are somewhere between 3,000 to 5,000 homeless people in the city. The Worcester Community Action Council has had more requests for fuel assistance this year than any other, another indication of economic hardship.

Definition of the Problem

Worcester has not done a good job of managing and protecting its natural resources. The Fair Share Development Corporation is the logical organization to move Worcester in the right direction, and I decided to focus on water conservation feeling that it is a critical issue and that FSDC might have the ability to move into that marketplace.

The underlying causes of Worcester's bad resource management are the following:

1. Worcester's city government is tightly controlled by the area's business elite. The City Manger's powerbase (although it is eroding) is with the Chamber of Commerce. His staff spend lots of time (unsuccessfully) planning downtown re-development, and have little concern about neighborhood development. The business community has seen calls for conservation and better resource management as a threat.

In fact, conservation is in the local business community's best interest, and education needs to be done to make that clear. As an example, on December 13, the Worcester City Council endorsed a letter sent by the city manager to the BASF corporation assuring the company that the city has the capability to meet its daily water (up to 250,000 gallons per day!) and sewer demands for facilities it is considering building at the biotechnical park. This assurance was given without talking to the Worcester Water Resources Coordinator, and is not included in any

supply planning the city has done. If Worcester wants to attract new industries, it has to have adequate water.

2. Community Organizations' Lack of Skills

There are a number of advocacy organizations which have called for resource conservation. The two most active, Mass Audubon and the Regional Environmental Council (REC) are good at environmental advocacy, but neither have the technical capacity or desire to deliver programs. Audubon also has the tendency to sell out to the business elite and not be concerned about neighborhood and equity issues in areas like affordable housing. REC is organizing the regional Earth Day programs.

FSDC could put itself in the position to both advocate for responsible conservation programs and to deliver them, though we needed to develop additional technical skills and a clearer public image. In fact, we needed to find new programs to pay our staff in order to keep the Worcester office open.

3. Outdated and incorrect beliefs about resources.

The root problem is our belief, fostered by our economic system and the federal government, that natural resources are not finite, and that the earth and its inhabitants can recover from misuse and massive pollution. In fact, growing evidence (the greenhouse effect, increased rates of cancer, and other environmentally caused diseases, lack of resources for the poor in this country and in all developing countries) shows that this is not the case. For the local economy to

prosper, to protect consumers from crippling utility costs, and to protect inhabitants from water, air and land that may be poisoning them, resource conservation is the most sensible solution.

4. Current service deliverer is not community based or local.

Energy audits in Worcester are currently provided by Mass-Save, an organization created and directed by utility companies to provide state mandated conservation programs (so they do not have to work with community based organizations to provide these required services.) Mass-Save contracts with a profit making delivery firm (DMC) to provide energy and water conservation services. Mass-Save does not provide the kind of comprehensive delivery system which emphasizes actual implementation. Mass-Save has more experience delivering energy and water conservation programs in the Worcester area than FSDC.

In terms of our actual water supply, we don't have enough! The system only has a capacity to supply 40 million gallons per day. On a typical day in July, the demand has exceeded 42 gallons per day. Worcester's current annual consumption of water is 9.3 billion gallons, with a total reservoir capacity of 7.8 billion gallons. The difference is made up by rainfall re-filling the reservoirs when they are low. Our reservoirs are shallow and fill and drain quickly.

The cost of water is increasing rapidly in the city of Worcester and Massachusetts in general. In July of 1989

the combined water and sewer rate rose to \$2.38 per hundred cubic feet. In 1986 the combined rate was \$0.85. The rate is slated to increase another 87% over the next two years.

Project Goals

In December, 1988, I was unsure about which aspect of resource conservation (water, energy, or recycling) I wanted to focus on.

In February, 1989, I received the assignment from our Boston office to do a demographic neighborhood analysis of Worcester for a proposed electric conservation program planned by Mass Electric called "Energy Fitness". FSDC's Assistant Director and I assumed we would also have a role in the actual delivery of the program. This process is described in more detail my Interim Report of April 15 (in Appendix 1).

In March it became clear that Mass Electric's plan was to contract with Mass-Save to deliver this program. Energy Fitness targeted low income neighborhoods for the free installation of energy saving compact fluorescent lightbulbs. FSDC also insisted that Mass Electric coordinate with the City of Worcester to install water saving devices.

The main problem with our work on the Energy Fitness program from my perspective was the lack of clear direction and information to me from Steve Cowell, FSDC's Executive Director. Steve had been hired by Mass Electric as a consultant to work on this project. One of FSDC's long term goals is to force the utility companies to do well-designed

energy conservation programs (demand management) as opposed to investing in the creation of new power supply. While pursuing that goal, Steve was not thinking clearly about the implications this program had for FSDC Worcester. I turned over my knowledge and analysis of Worcester's neighborhoods to our strongest competitor and we created a program which allowed them to build credibility with local neighborhood centers and government.

In any case, FSDC probably would have decided to do that in order to meet our longer term goals. The point is that there was no planning or coordination in advance so that we studied the implications of our actions before we made a decision. Instead, I felt like I had been betrayed.

In addition, I was basing my assumptions about our neighborhood contacts on the state they had been in when I directed the FSDC Worcester office before leaving in January 1985. Since that time, I had been in Fitchburg for four years, and lost contact with the neighborhood centers (though I remained very active in local politics).

During the time I was in Fitchburg, FSDC Worcester focussed on delivering a 0% energy loan program (HEAT) for middle income homeowners, and did no other image building or marketing. Therefore, our natural allies, the neighborhood centers, were confused about what FSDC was, and didn't understand what role we had to play in helping them deliver a program. We told Mass Electric that they had to work with the centers and set up the meetings to facilitate the

process, but we didn't get the credit for doing that.

The Energy Fitness experience made it clear to me that FSDC needed to do better internal planning and communication, and also had to concentrate on our image in the community. As it turns out, two classes I took in the summer term, Organizational Management and Marketing, helped me to do that. For my project, I decided to concentrate on water conservation and explained that in the April 15 Interim Report.

From updating my initial project contract and various experiences, my project goals evolved into the following:

1. Develop water conservation technical resources in the Worcester staff
2. Develop FSDC's expertise and community contacts in Worcester
3. Produce a "Saving Worcester's Water Report"
4. Develop a Worcester Domestic Water Conservation Project
5. Organize Political support and publicize FSDC

A summary of the actual tasks involved is the Final Project Timeline (Also in Appendix 1)

For the purposes of analyzing my methods, experiences, and results, I am going to discuss these six goals in three sections: 1) Organizational Development : which focuses on communication and organizational development within FSDC and the acquisition of technical capacity and resources for the Worcester office; 2) Marketing: which focuses on convincing

Worcester that we have skills and expertise which is of value to the community; and 3) Project Development: which details the steps I took to begin the design process for a domestic water conservation program for Worcester.

Organizational Development

In early 1989, FSDC Worcester was not doing any real planning on its own or in cooperation with the Boston main office. The Program Director went into Boston for management meetings, but she often found that decisions were made outside these meetings and that little attention was given to Worcester concerns.

It became clear to me that coordination and strategizing were crucial to the organization's future, since the Worcester office was funded almost entirely by the state's 0% Loan HEAT program, which was due to end by 1990. Learning about participatory planning in the NHC CED class, Organizational Management, gave me an opportunity to initiate some planning from the Worcester office.

I developed a one day Strategic Planning session which was held on July 20, 1989. (See the agenda in Appendix 3 : Strategic Planning (SP), its Appendix C.) The four Worcester staff members participated along with FSDC's Assistant Director.

The planning session had two main sections : 1) an analysis of the current resources and programs of the

Worcester office (see SP-B) and 2) a SWOT (Strengths, Weaknesses, Opportunities, and Threats) Analysis (see SP-F).

We also began the discussion of possible strategies (see SP-H) to maximize opportunities and minimize threats, but that was too much for the one day. Our strategy discussions have continued since that meeting.

The most important points that came out of the Strategic Planning session (see Appendix SP-E) were:

1. FSDC did not have a clear mission
2. FSDC Worcester has strengths and skills to build on
3. The Worcester office lacks resources: staff, equipment, training
4. We don't do planning to help us focus our time
- 5 Our identity in the community is unclear or wrong and we need to market ourselves and no staff person has taken responsibility for this. Our name is a source of confusion and we need some sort of brochure or catalog.
6. There are some new market opportunities for FSDC
7. Public money funding cuts are a threat
8. Strong competition from Mass-Save is a big threat

On September 20, 1989 the Worcester staff hosted a FSDC management meeting, where our SWOT analysis was presented to the Boston staff, including the Executive Director. (The agenda and next steps from that meeting are in SP-I).

This process focussed attention on the Worcester office and has resulted in the following positive developments:

FSDC's Mission has been defined: To help Massachusetts citizens improve their standard of living through the efficient use of natural resources.

Worcester office hired a new staff person and trained two new water conservation installers (and Laura) through the hot water conservation program we deliver for the town of Shrewsbury (developed by our umbrella organization, CEP). We have a new (used) computer and a new printer and have hired a local person as a consultant since our main office does not give us enough computer technical assistance. We now have the technical and organizational ability to get a water conservation program for the city off the ground.

FSDC has printed a new catalogue (Appendix 4) which includes the products we sell, the purpose of the organization, and lots of information about the Worcester office and the water conservation programs we offer. This is a very helpful piece in marketing. Marketing is a critical lack that we identified through the Strategic Planning process. More on what we have actually done and analyzed is discussed in the next section (marketing).

FSDC is in the process of spinning off a new corporation "Ecological Innovations" to allow us to profit from our conservation materials sales, and resolve some of the identity problems created by the name Fair Share Development Corporation.

The name FSDC is a problem because most people think we are part of the citizen action group that went bankrupt,

Massachusetts Fair Share. FSDC is a separate corporation which spun off from MFS in 1984, and used the same staff people (like me) to do the same jobs working out of the same office.

This is particularly a problem in Worcester, because Worcester Fair Share had a very strong media and community presence. City government and utility company officials hated Mass Fair Share. At the same time, there was lot of community support for Worcester Fair Share, which changed the city charter, fought utility rate hikes, and elected several progressive politicians.

Both the Worcester and Boston staff have recognized the need to involve the Worcester staff in organizational planning, and the value of this process for the entire organization.

Marketing

Our organizational development activities pointed out that marketing was something the organization wasn't doing or thinking about. For the Marketing class, I analyzed the information about our organization and the competition as well as results from a focus group I held (see Appendix 5 for paper).

This focus group was very helpful to me by indicating that a program must include consumer education since focus group participants thought Worcester did not have a supply problem, though they knew we had a quality problem (In our

blind taste test people said that Worcester water "tasted like a swamp"). I also got the sense that a direct installation program makes the most sense since people weren't motivated to install the devices themselves (even when I gave them to them). Again, we got feedback on how confused FSDC's image in the community is.

I was not successful in taking the information I had gathered and using it to develop a marketing tactic for FSDC. Michael Rozyne wrote, " This strategy reads a bit too much like a fairy tale - all the good things you're going to do without sharp introspective analysis about what's manageable on what time frame".

This problem is an issue we are continuing to struggle with at FSDC. The need for us to organize political support for water conservation and publicize FSDC was discussed in my marketing paper, but I didn't figure out clearly enough what we would actually do. The development of the Ecological Innovations catalogue is our first attempt... at least it makes clear what we currently are and the range of activities we are involved in and uses the name we may decide to adopt.

Two items on the Final Timeline are related to marketing. These are : "Produce Saving Worcester's Water Report" and "Organize Political Support and Publicize FSDC". Here is where things currently stand:

Produce "Saving Worcester's Water Report"

I wanted to do this both to focus on the problem and to gain credibility for FSDC. Kathy Klein, the Worcester Water

Resources Coordinator, has decided to hire an engineering firm to do something along these lines to create a slick document for the City Council and public. Therefore, I decided FSDC shouldn't bother, but we need to figure out what our role should be in publicizing this report. That's why my focus has shifted back to using the catalogue to publicize the organization. So, I didn't do any of the tasks outlined in this area on the Final Timeline (Appendix 1).

Organizing Political Support and Publicizing FSDC:

The Ecological Innovations catalogue was mailed to over 800 households in Worcester. I wrote the article about the Worcester office and made sure it was included in the newsletter. I've given it to my friends and we've gotten it out to the active environmentalists through REC. I also sent it with a letter to the Worcester City Council (a copy of the letter is at the beginning of the Marketing Appendix) . The next step is that we need to develop a local press strategy. It will probably be about our expanded "Ecological Innovation" store and catalogue , but we need to figure out how we follow up on that. We are also looking into how we can tie into Earth Day organizing.

So, I haven't developed do-it-yourself articles on conservation, released the "Report", built a display, or participated in the city's coalition (since it hasn't been organized yet). Our publicity efforts are now focussed around "Ecological Innovations".

Project Development

This concrete part of my project has gone very well, although more slowly than I originally anticipated. The goal has been to actually develop and deliver a Domestic Water Conservation Program for the City of Worcester. At the end of each term, I submitted an interim report and list of Project Activities (Appendix 1) which detail and explain what I did. I find the Project Activities summary particularly helpful in recalling events and would recommend using this format to other NHC CED students.

The most critical component of my success to date (other than the development of more technical capacity in the organization which was discussed previously) has been developing a relationship with Kathy Klein, the Water Resources Coordinator. For the past year, I have been meeting with her about every month, sharing information, and offering to design a domestic water conservation program. Throughout the whole process, I have felt guilty that I haven't done it sooner, but that isn't a problem from her perspective. She's feeling guilty about the fact that she is spending a lot of time on water source protection activities, since there is not one else in the city to do it.

One of the more interesting aspects of this process has been our gradual realization that the information the city has about its water demand (which I presented to NHC CED in December 1988 in Appendix 1) is wrong! Worcester said that

only 20% of its water consumption is residential, but as Kathy has gathered more information, she has discovered that basically that figure was a guess based on meter size.

When I met with Kathy in August she explained this, and that she was had started a complete analysis of water bills compared to tax assessor's numbers, so we could have accurate information. I agreed that FSDC would design a water conservation program.

In meeting within FSDC in September, we decided that FSDC needed to be paid for doing this design work, and I should write a proposal to the city. This was not something I wanted to do, and avoided it successfully until November. Friendly pressure from Chris Clamp and my project group was critical in forcing me to actually get a draft of this done.

This was sent to Kathy Klein and I met with her with the Executive Director in December. We agreed to develop a fairly detailed Scope of Services costing between \$5,000 and \$10,000 which I would get to her in mid January. I copy of the Scope of Services is Appendix 6 (yay!).

In addition to learning that "Facts Can Be Wrong", as demonstrated by the incorrect end use assumptions, I also plan to try not to feel guilty. I tend to get immobilized and have difficulty asking for help. FSDC has the resources to do this kind of design work. I have to consistently demand help from the rest of the organization, and create deadlines which will force me to produce.

Conclusions

In order to develop a new program, an organization needs to have its internal act together. A main office can't make decisions without examining the impact on a satellite office if the whole organization is to work together effectively. A good way to re-align an organization is by doing some participatory planning. This also allows the organization to analyze what additional resources might be needed in order to develop new programs.

My experience showed me that I couldn't develop a new program in Worcester, without needing changes within the whole organization. Although it's hard to take the time for it, a group of people can't do things well without planning.

Going outside the organization for feedback is also critical, because it's too easy to make assumptions which are not based in reality. It was easy to assume that we know what the public thinks about FSDC and water conservation, but most of my original assumptions were wrong. The focus group and working with local environmentalists has been a good way for us to get this feedback initially. I'm not sure how you keep getting that feedback on an ongoing basis.

Marketing is not something that just happens. It takes organizational resources, time, planning, and commitment. It is not just going to happen. FSDC hasn't completely figured out what message we want to send to the public. However, we have done a good job on a one to one basis with Kathy Klein

and local environmentalists in convincing them of our technical capacity and knowledge of Worcester's neighborhoods and politics.

You have to do good organizational planning to produce a good brochure or catalogue. This piece is critical to be able to say, here's what we are. Although we don't have a tactic, we do have something we can give people, which is a start.

Developing a project is a process of building relationships with funders and building your organization's capacity to deliver the project. It's taken us a year, and we're just beginning the design phase. And who knows if the city administration won't freak out when they find out Kathy Klein is planning to pay FAIR SHARE development for a project.

On a personal level, this project has allowed me to recognize some skills I have and develop them further. I am getting better at asking for help and not feeling guilty about things I can't get done.