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Case Study for the Cardener River Project

Watersheds and Regional Planning

Watersheds:

"Watershed management is an integrated strategy for more effectively restoring aquatic resources. This approach focuses on hydrologically defined drainage basins rather than on areas arbitrarily defined by political boundaries. Thus for a given watershed, the approach encompasses not only the water resource, such as a stream, river, lake, estuary, or aquifer, but all the land from which water drains to the resource...Watershed management emphasizes a cross media approach, addressing water quality issues through the protection of biological and physical systems and the reduction of pollution." (Chesapeake Bay, p.37) Although the primary goal of this approach is to protect and restore natural resources, it is also a useful lens through which planners may look at a region in an integrated way. "Whether migratory birds, hydroelectric power grids, or other factors are involved, we must be prepared to perceive watershed space in dimensions other than physical" (Gateway Communities, p. x.) In shifting to naturally, rather than politically defined landscapes, planners as well as decision-makers are encouraged to cooperate with neighboring municipalities and recognize their shared or common resources. In the recent report, New Strategies for America's Watersheds, the authors maintain that this is a critical aspect of environmental management: "The watershed approach acknowledges linkages between uplands and downstream areas, and between surface and ground water, and reduces the chances that attempts to solve problems in one realm will cause problems in others. Watershed management is an integrative way of thinking about all the various human activities that occur on a given area of land (the watershed) that have effects on, or affected by, water. With this perspective, we can plan long-term, sustainable solutions to many natural resource problems. We can find a better balance between meeting today's needs and leaving a sound resource legacy for generations to come." (New Strategies for America's Watersheds, Commission on Geosciences, Environment and Resources, 1999.)

Watershed management is becoming more and more commonly practiced, with successes in both the U.S. and Europe. In Malmo, Sweden, "The trend...is to replace traditional planning procedures with a more integrated structure to city planning with water, green structure, and waste plans, developed alongside the masterplan" (p.163.) This type of management can also save agencies time and money, while improving environmental protection. In the US for example, the state

of North Carolina was able to monitor nearly 40 percent more waters with the same level of effort after monitoring was conducted on a more coordinated watershed basis.

(<http://www.epa.gov/owow/watershed/why.html>.) In New Jersey, the Department of Environmental Protection has chosen a range of institutions, from non-profit organizations to municipal water district agencies, to take responsibility for developing and implementing local watershed plans across the state. This structure encourages local participation and education and helps to decentralize the planning process.

Watershed Management is supported in the US by a number of financial mechanisms stemming from the Clean Water Act, such as planning grants to develop a state watershed planning framework and individual watershed plans, and to conduct environmental assessments critical to effective watershed planning.

The Watershed Management approach holds valuable lessons for the Cardener River Valley in that it could be a platform for inter-municipal coordination. It is also a model of a systems approach to planning, which incorporates economic, environmental and social considerations.

REGIONAL PLANNING

The Cardener region has similar characteristics to many "Gateway Communities" in the US which are located near public lands. Both are experiencing a shift of economic activities away from natural resource extraction and are increasingly becoming magnets for city dwellers looking for a higher quality of life. Many communities in the US, such as in the greater Yellowstone region, have also moved their economic bases toward tourism as well as retail and service industries in just a few decades.

There are several lessons which other communities have followed in order to facilitate a smooth and successful transition. First, it is important to develop a widely shared vision within the community. This can be carried out through charettes, community meetings and surveys. Second, it is helpful to create an inventory of local resources, highlighting both strengths and weaknesses of an area. It is also important to build on local assets in devising a development strategy - emphasize what you have, not what you don't. Other recommendations include: minimizing the need for regulations - pursue avenues other than regulation to reach your management goals; partner with public land managers - there is an existing wealth of local knowledge and experience; and lastly, recognize the role of non-governmental organizations. Financial mechanisms are also important considerations. In Crested Butte, Colorado, for example, the town used proceeds from a 2.25 percent real estate transfer tax to finance the acquisition of open space and conservation easements on lands important to the community. "Many gateway communities have found that local

land acquisition programs are necessary to meet community priorities" p.76

Because the Cardener region is currently exploring opportunities to encourage and foster tourism, there are several considerations which have been useful for gateway communities in the US in determining if and how to develop such a strategy. These include: economic diversity - is tourism part of a larger strategy for economic diversity?; fiscal cost - would the region have to assume a large fiscal burden in order to develop tourism as an industry?; sustainability - is the type of proposed tourism compatible with protecting community's natural resources?; and quality - would tourism in the area encourage meaningful and desirable employment?

Case Study: Earth Centre, Doncaster, England

The Earth Centre in Doncaster, England is an example of the potential for a kind of environmental tourism which incorporates economic, social and ecological revitalization. This project is particularly notable because of the history of the site, located in a once wooded river valley, which became ruined from 100 years of coal mining. In the 1990's, when Britain experienced widespread coalmine closures, the Doncaster region had severe environmental degradation and high unemployment. Located on a 220 hectares, two hours from London, the Earth Centre is now a forum for the exploration, demonstration and communication of sustainability. The project features a carefully integrated ecosystem, incorporating nature conservation, food production, buildings, woodland management, archaeology, energy efficiency and water management, in addition to a conference center, galleries, restaurants, residences, and recreational and cultural facilities.

Although the project continues to be a large undertaking, financed by the European Commission, English Partnerships, and English National Lottery Millennium Commission, there are elements of the project which can be applied as models of sustainable development practices and "tourist attractions" in the Cardener region. In addition to the environmental technologies used on the site, much can be learned from the conceptual design of the projects. For example, the plan to have one high profile project intended to reach a large audience, and several satellite centers which would be outreach and educational posts might be a good model for the proposed ecological center. The site will also be able to evolve over time, which allows for flexibility and reflection in the design process.