



Online Ethics Center
FOR ENGINEERING AND SCIENCE

Small Municipality Development Strategies from a Sustainability Perspective

Author(s)

Deena Murphy-Medley
T. Martin Wiggins
Joseph Herkert

Year

2001

Description

This case involves a civil engineer working for a small municipality faced with a common development dilemma -- how to remain economically viable in order to control growth and avoid merger with neighboring municipalities. The engineer is asked to evaluate development strategies and recommend a course of action to the town council. Town A has turned its downtown into an antique mall, and is focusing on the redevelopment of brownfield areas. Town B has implemented progressive growth management policies, and is pursuing aggressive annexation and industrial recruitment.

Body

[History of the towns](#)

[The impact of suburban sprawl on the towns](#)

[Factors which affected their decisions](#)

[Sustainable development strategies](#)

[Assessment of sustainable development strategies](#)

[Your recommendation for a course of action](#)

[Notes and References](#)

You are a civil engineer working in the town planning office for a small municipality at the fringe of a fast-growing urban area that is faced with a common development dilemma how to remain economically viable in order to control growth (and the associated environmental and transportation problems) and avoid merger with neighboring municipalities (which would mean loss of town identity). Recently, two similarly situated communities in the same state developed strategies for improvement. You have been asked to evaluate these development strategies on the basis of sustainable development principles and recommend a course of action to the town council.

As a civil engineer, you wish to comply with the American Society of Civil Engineers (ASCE) Code of Ethics and in particular with their principles of sustainable development.(1) You need to develop a course of action based on long term sustainable development and recognize that this requires systems that are economically sound, environmentally friendly and supportive of community livability.(2)

Town A has turned its dilapidated downtown into an attractive antique mall and is focusing on the redevelopment of brownfield areas. Town B, on the other hand, has implemented dynamic growth management policies and is pursuing aggressive annexation and industrial recruitment. You must carefully consider the political, social and economic motivations, as well as environmental and geographical factors, which led to these radically different plans. You must also evaluate the short term success and, most importantly, the long term sustainability of each strategy in accordance with sustainable development's "triple bottom line" of ecological, economic and social factors.

History of the towns

Both towns were developed as railroad depots in the 1800s. Originally farming communities, the proximity of the railroad led to the growth of cotton mills. After the depression, cotton never regained its prominence and both towns diversified into tobacco, thus retaining their economic strength. Major interstates bypassed the two towns, which led to a decline in the downtown areas. The diminishing importance of rail freight and travel further drew commerce and activity away from the center of the towns and towards the sprawling type of strip mall development that appears along the interstates. This in turn led to more residential subdivisions closer to the highways.

[Back to Top](#)

How does "sprawl" affect communities in regards to transportation, downtown areas and a sense of identity?

The impact of suburban sprawl on the towns

Both towns gradually felt the impact of the suburban sprawl. Their downtown areas deteriorated rapidly, most of the buildings were in serious disrepair and both of the towns had a poor self-image. Property owners knew these areas were no longer economically viable and had left the buildings to decay. Crime had increased in the older parts of the towns, as there were excessively high concentrations of poor people with social problems.⁽³⁾ Neighboring municipalities were beginning to encroach on the towns' boundaries, which had led to a loss of town identity and no sense of community. This had been increased through the amount of subdivisions that remained outside the city limits. The recent growth of the banking and technology industry throughout the state had left both towns with a solid tax base, though the towns were concerned that this could be lost as their towns became merged with larger cities.

Both town councils identified the following goals:

Short term

- To improve downtown areas especially in regards to the redevelopment of infill housing, brownfield sites and obsolete buildings.

- To regain a sense of community and identity for their town.
- To create economically viable development that would preserve natural resources.

Long term

- To create public transport systems as an alternative to the automobile.
 - To preserve open space and scenic areas for the future.
 - To promote a smart growth plan for future development.
-
- Are these goals realistic?
 - Is it important to achieve these goals or is it enough to move toward them?(4)
 - How can the towns attract industries, which enhance their economic well being, but do not adversely impact the environmental health of their town?

[Back to Top](#)

Factors which affected their decisions

Initial planning

The mayor of Town A felt it was important to keep a "personalized" feel towards their planning and chose to involve the community in planning and not to use private consultants. She scheduled town meetings to question the community on their values with respect to the environment, economic growth and lifestyle, explained what goals the town council had identified and sought input on how to achieve these. Further meetings led to a variety of options for the town to vote upon.

The mayor of Town B wanted more diverse perspectives and brought in a variety of different outside consultants. He set up a small task force comprised of new and long-standing citizens that were involved in negotiations.

How might these different approaches affect later choices?

What ethical dilemmas may result from the use of outside consultants?

[Back to Top](#)

Sustainable development strategies

Town A

Town A voted unanimously to focus their efforts on rebuilding the downtown area—redeveloping brownfield areas—decided to create an antiques mall downtown. They hoped to create a historic, tourist feel to their town and lure in the businesses that had been set up closer to the interstate. The town itself would act like a private developer and market the downtown area. Incentives would be offered in the form of subsidized rent for antique dealers and the town would assist with promoting this new tourist site. This option left them some leeway in their budget for future development.

- What goals are the townspeople focusing on?
- What problems might this cause them in the future?
- How might this strategy lead to further development?

Town B

Town B's strategy focused on intensive urban planning and aggressive annexation. They sought to gain a "sphere of influence" over an area of 64 square miles. They looked at zoning based on "new urbanism" and lobbied for transfer of development rights. More consultants would be hired to design plans for the new downtown areas and open space preservation. Non-polluting industry would be courted for the downtown area and brownfield areas were to be redeveloped. This option would place the town in debt temporarily.

- What benefits might a "sphere of influence" offer?
- What is the town focusing on?
- Do you foresee any pitfalls with this option?

- Could any problems occur from the lack of community involvement?

[Back to Top](#)

Assessment of sustainable development strategies

Town A

Short term

Town A's strategy achieved its goals at a low cost, since its plan was market driven. The town continued to maintain a low dependence on large corporations for its tax base. All the buildings downtown were rented and after a short period of time, most were purchased. Additional space is now being built and converted in the downtown area. The revenue from antiques in one year was \$2.5 million.

- How would you rate Town A's short term success?
- Do you foresee any problems in the long term? What issues are not being addressed?

Long term

Despite not focusing on housing, many of the oldest dilapidated homes in the central area have been purchased by the antique dealers and other retailers. This has led to greater resources for municipal survival and has created spin off services for citizens of all income levels. In the long term, problems may arise as suburban growth outside the city limits has not been addressed and there are no plans for the preservation of open space or greenways.

- What negative effects may occur due to the lack of future growth planning?
- How might this affect open-space preservation?
- How would you evaluate Town A's long term sustainability based on the "triple bottom line" of ecological, economical and social factors?

Town B

Short term

Town B used a 64-square mile buffer zone to prevent encroachment from surrounding areas. This buffer zone incorporated much of the "sprawling development" along the interstate and the subdivisions, which had previously been outside city limits. The downtown area, including brownfield areas, is being totally rebuilt and the industry coming into the town is either banking, high tech or service oriented.

The town created new city ordinances and zoning laws based on 'new urbanist' principles to control future growth; these promote high-density development and interconnected roads, making cul-de-sacs illegal. The development in the town center will be a greater mix of housing, commercial and retail uses. Open space preservation is perceived as a key community value and built into the development plans. These plans should be completed within five years.

- How will the town benefit from incorporating the past development along the interstate?
- Why is the type of industry that the town has brought in important?
- What positive aspects are there to high-density development?
- What is the point of making cul-de-sacs illegal?
- How will having mixed development help the town?
- What advantages can be gained by preserving open space?
- How would you rate Town B's short term success?

Long term

In the long term, though plans were underway for creating pavements to make the town walkable, there were no attempts to improve public transportation. The population was expected to rise from 3,000 to 26,000 within ten years, yet there was no planned utilization of the disposable income of the new residents. Private consultants are still key figures in the town and problems may arise due to their overuse. The annexation happened quickly, which may further threaten the political

stability of the local government.

- Why is public transportation important to sustainable development?
- How could private consultants and rapid annexation threaten the political stability of the town?
- How would you evaluate Town B's long term sustainability based on the "triple bottom line" of ecological, economical and social factors?

[Back to Top](#)

Your recommendation for a course of action

If you were to base your course of action on the development strategy of Town A, what changes, if any, would you make to improve their prospects for long term sustainability?

If you were to base your course of action on the development strategy of Town B, what changes, if any, would you make to improve their prospects for long term sustainability?

Given your assessment of the development strategies of both Town A and B, including the improvements you have included, what recommendation will you make to the town council?

[Back to Top](#)

Notes and References

1. In November, 1996, the ASCE Board of Directors adopted the following definition of sustainable development: "Sustainable development is the challenge of meeting human needs for natural resources, industrial products,

energy, food, transportation, shelter and effective waste management, while conserving and protecting environmental quality and the natural resource base essential for future development."

2. Terwilliger, J. Urban Land Institute (Chairman). Introduction to: O'Neill, David. Smart Growth: Myth and Fact. Washington, D.C. ULI, 1999.
3. Beaumont, C. 1996. Smart States, Better Communities. Washington, DC: National Trust for Historic Preservation, p.264.
4. English, M. 1999. "Smart Growth for Tennessee Towns and Counties: A Process Guide" posted on <http://eerc.ra.utk.edu/smart/chapter1.htm>

Notes

Authors: Deena Murphy-Medley, North Carolina State University, Joseph R. Herkert, North Carolina State University, and Thomas Martin Wiggins, North Carolina Department of Environment and Natural Resources.

© 2001, used with permission.

Resource Type

Case Study / Scenario

Parent Collection

Sustainability

Topics

Community Relations

Social Responsibility

Social Justice

Sustainability

Discipline(s)

Civil Engineering

Engineering

Publisher

Online Ethics Center