

CHAPTER 8 – SUSTAINABILITY

What Sustainability Means

“Sustainability” is an expansion of the old fashioned idea of stewardship – the careful, long term management of community land and resources. Sustainability is not simply about conservation—it is a long term strategy for economic growth. Conservation is focused on the management of resources so as to eliminate overexploitation and maximize long term benefits to society. It is a related and complementary concept with regard to sustainability. Activities are sustainable if they can be maintained over time without depleting the natural resource base. Sustainable development is development which “meets the needs of the present without compromising the ability of future generations to meet their own needs” (United Nations Brundtland Commission). Sustainability seeks to provide the highest possible quality of life for all residents in a way that maintains and enhances the ecological processes on which life depends.

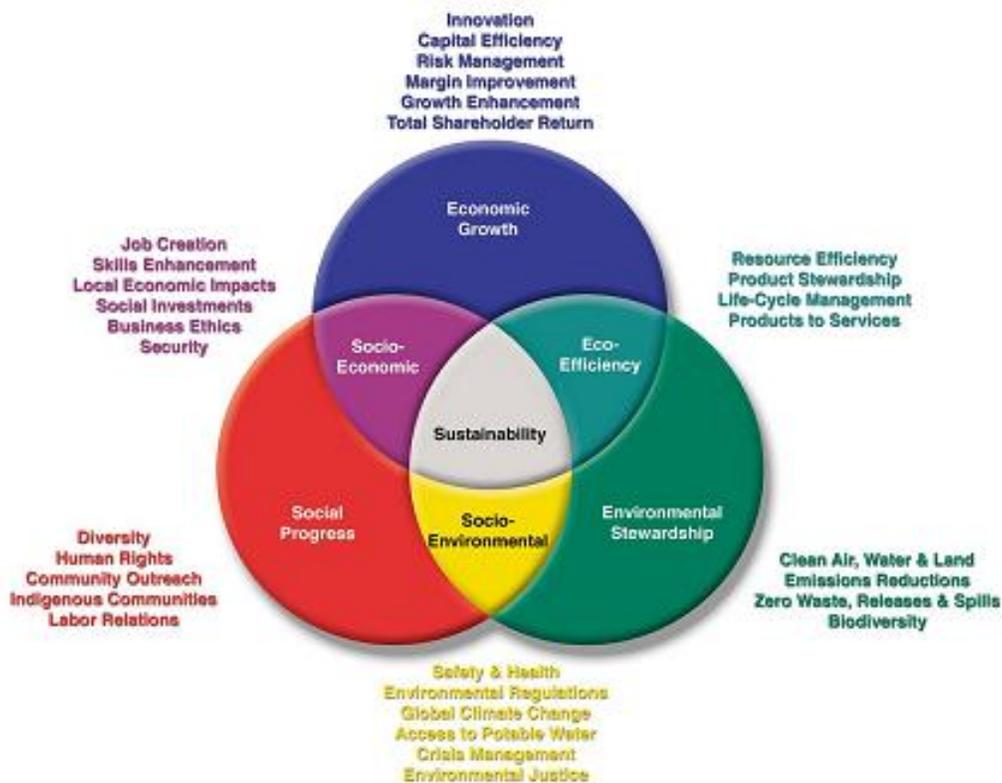


Figure 8-1: Sustainability Diagram (Source: www.future500.org)

Historically, conventional economic theory failed to encompass the full range of environmental, social and cultural costs when considering the benefits of development. Serious consideration of sustainable development requires considering the cost to the common good, including deterioration of air and water quality, depletion of resources, and such factors as noise and traffic congestion. The concept of costs should also include the loss of beauty and cultural resources, and the severing of



positive social relationships. There has been very little research on how to quantify these costs, many of which are intangible. However, an understanding that these costs are real is necessary to assure that development will not negatively affect the community for the sake of development. The full costs to the community as a whole should be considered.

Understanding the concept of sustainability as it applies to Chester is not difficult. Minimally, it implies that our natural and cultural environment presents certain limitations on how much infrastructure we construct, how many houses we build, how many fields we lose, and how many human beings live here, such that if we grow beyond that point, we will incur costs greater than any benefits we might hope to achieve through further growth. Sustainability also implies that we become mindful of the non-visible, negative consequences that economic activity in Chester may have, and that we become economically capable of reducing those negative impacts. It calls for a community-invested decision on how much and what kind of growth is acceptable. Finally, the concept of sustainability requires recognition that Chester is part of a global economy. That requires a simultaneous effort to maximize emerging environmentally responsible technology and innovation to promote new ways of “keeping it local,” while also participating in a global marketplace. Generally, moving in the direction of sustainability means reducing our impact on the environment by producing less waste, using less toxic substances, consuming less and developing wholesome relationships with nature while also providing economic capacity for employment, innovation, and progress.

There are various descriptions for achieving sustainability which all share a common approach. According to The Rocky Mountain Institute, achieving sustainable development requires the following actions:

- ◆ Redefining prosperity, weighing community values, quality of life and the environment alongside traditional economic considerations;
- ◆ Seeking true development in the sense of getting better, instead of expansion, which is merely growing bigger;
- ◆ Advocating the long term stewardship of community resources, ensuring that present actions do not erode the basis for future prosperity;
- ◆ Pursuing self-reliance and a more democratic approach to decision-making, representing community wide interests over individual interests; and
- ◆ Stressing diversity, resilience, and a conviction that many small efforts can work better than a single one-size-fits-all solution.

Actions in Support of Sustainable Goals

There is a growing international urgency to look at growth and development with a new frame of reference. This has been greatly hastened by looming challenges in the areas of energy consumption and cost, the effects of climate change, and evolving globalism. While these problems have been identified for several years, it is only recently that this awareness has penetrated the public



consciousness in a major way. Numerous localities throughout the world have created sustainability strategies. Information on local efforts is available through web sites. For example, one particularly helpful website (www.town.wolfville.ns.ca) is that of the town of Wolfville, Nova Scotia. After creating a Sustainable Community Planning Task Force, Wolfville summarized its intentions in the form of four broad objectives as follows:

- ◆ Reduce and eliminate our dependence upon fossil fuels, extracted underground metals and minerals.
- ◆ Reduce and eliminate our dependence upon chemicals and unnatural substances that can accumulate in nature.
- ◆ Reduce and eliminate dependence on activities that harm life-sustaining ecosystems and encroach on nature.
- ◆ Meet the hierarchy of human needs fairly and efficiently..

These objectives are a solid basis for sustainable development. How these objectives are met is the challenge for each community. One strategy for accomplishing the objectives of sustainable development is economic re-localization. Economic re-localization is a way to develop a local economy by strengthening its resilience and self-sufficiency, as opposed to only increasing its income. The concept is best reflected in a discussion of locally-grown food and locally produced electrical energy.

Sustainability Projects for Chester

The list of actions to support sustainability grows larger as discussion of the subject expands. Many actions have long been advocated by conservationists and environmental activists. Others are just now being made possible by new technologies. The focus of these actions is to reuse, recycle, substitute, use less, and be aware of long term and far-reaching consequences.

Sustainability can be implemented by changes in approaches to physical development in town, minimizing impacts on the environment from local public and private activities, developing new approaches to maintaining and improving the local environment, employing sound land use practices, encouraging a pedestrian-, bicycle- and transit-friendly community, and promoting and furthering sustainability through a wide-ranging education and outreach program. What follows is a listing of some potential activities, tasks and goals for enhancing sustainability in our community.

RECOMMENDATIONS CONCERNING SUSTAINABILITY:

Physical Development

1. Encourage the use of recycled, renewable and local materials for construction projects.
2. Encourage re-use and retrofitting of older buildings where possible, conserving both building materials and cultural resources.
3. Encourage adaptable, extendable buildings and public spaces, useable for many functions.



4. Evaluate opportunities for alternative energy generation from local resources.
5. Conduct an energy audit of town buildings and implement recommendations as part of the Town's Capital Improvement Program. Offer information and possible financial assistance for energy audits of private buildings.
6. Recommend adoption of the U.S. Green Building Council's LEED (Leadership in Energy and Environmental Design) or equivalent energy-efficient building standards and certification for public buildings and subdivision regulations.
7. Encourage the use of solar power , low head hydropower and other alternative energy sources by removing unnecessary zoning barriers to their use.
8. Develop and provide guidelines through the Town's land use offices and commissions on green principles as a Chester preference.
9. Develop guidelines and encourage land use practices that promote appropriate design for density which supports sustainable objectives and transit- and pedestrian-oriented development.
10. Put the town's natural resources inventory online so it is readily accessible to the public.
11. Monitor discharge to watercourses and water bodies from town and state owned storm water systems to insure no or minimal damage to receiving waters. Recommend and monitor corrective actions where needed.
12. Educate and encourage the use of native plants for landscaping on private and municipal properties.
13. Promote and support local and regional infrastructure investments which advance intermodal transit opportunities and methods which lower "Vehicle Miles Traveled" (VMT).
14. Support and encourage the use of alternative and clean-fuel technologies by public fleets.
15. Partner on regional projects for marketing and promotion of commuting alternatives.
16. Promote installation of new and emerging telecommunication technology for telecommuting and business operations.

Reducing Waste

17. Work toward a Town "paperless office" by making use of electronic files and correspondence. Incorporate sustainability in town purchasing programs.
18. Develop an anti-idling policy for town vehicles that exceeds the state requirements.
19. Support a study of a town-wide composting program.
20. Continue support for regional recycling and regionally-based disposal of household hazardous waste and electronics equipment, consider "single-stream" recycling, and expand local collection options for recycling.
21. Reduce light and noise pollution through careful review of proposed development projects. Control outdoor lighting.



22. Develop and promote a program for installation of rain barrels on residential and commercial properties for water conservation in landscaping and gardening.
23. Educate the public and town officials about energy conservation and alternative energy sources using the existing Energy Task Force grant and other appropriate means.

Making Ecological Improvements

24. Establish an ongoing urban forest program which includes a street tree inventory, monitoring of tree conditions, and a replanting program.
25. Consider providing a location for and supervise a community garden.
26. Promote retention of onsite forestation to maintain tree cover, reduce storm water runoff, and protect the scenic value of the town's woodlands.
27. Consider providing space for and sponsoring a local Farmer's Market to promote local produce and agricultural products.
28. Consider economic incentives for businesses which provide sustainable goods and groceries to the local population with affordable pricing.

Land Use Patterns

29. Encourage use of LEED neighborhood standards within Chester. Neighborhood design standards, patterned after the LEED building standards, are being developed by the US Green Building Council, in cooperation with the Natural Resources Defense Council and the Congress for New Urbanism.
30. Support public transit financially and identify and promote future bus stops. Promote pedestrian connections between bus stops and activity centers, including Chester Village and Route 154.
31. Develop and promote safe bicycle routes and bicycle storage to encourage substitution of bikes for cars.
32. Support local and state car and vanpooling programs.
33. Use existing public utility services before extending new services.
34. Avoid additional impervious development on soils suitable for agriculture.
35. Recognize, anticipate and plan for changing patterns of living and work.
36. Review possible sources for the preservation of farm and forest land, including Public Act 490.

Education

In addition to using sustainable development strategies for town government activities, the Town of Chester can educate and encourage its citizens to practice sustainability in their private actions. Through the town newsletter, in-school educational programs and activities, and distribution of promotional materials at Town Hall and town events, information can be disseminated about sustainability practices. Specific events, such as an eco-fair or a "ride your bike" day can be coordinated by town commissions and town officials.



Sustainability Indicators

An important aspect of sustainable development is the need to develop quantitative indicators to measure whether sustainability measures are effective. A “Guide to Sustainable Community Indicators” has been published by Maureen Hart, with funding from the US Environmental Protection Agency’s Office of Sustainable Ecosystems and Communities. Hart notes that effective community indicators need to address the carrying capacity of community capital, be relevant to the community, and be understandable and useful to the community. Further, these indicators should show the links among the economy, environment and society. They should focus on the long range view. According to Hart, “sustainability is not a quick fix for current problems. A primary goal of sustainability is to choose activities today that will not cause problems tomorrow.”



Figure 8-2: CTDOT Hydrogen Fuel Cell Bus (Source: CTDOT)

The art of creating sustainability indicators is a young and evolving field. Data at the local level is scarce and unreliable. Census data quickly becomes dated, and projections based on the Census Year grow less reliable as the time from the Census passes. Many of the qualities that should be measured are intangible and difficult to quantify.

RECOMMENDATION CONCERNING SUSTAINABILITY COMMITTEE:

37 Create an on-going Community Sustainability Committee comprised of knowledgeable volunteers from municipal boards and commissions as well as various community groups in town. The committee should include at least one representative from: Conservation, Planning and Zoning, Economic Development, Board of Finance, Board of Selectman, Public Works and Inland Wetlands. Planning and Zoning will be charged with the formation of the Committee.

The objective of this committee would be the following:

A. Bench-marking sustainability: The development of sustainability indicators, or ways to measure the town’s progress towards greater economic sustainability. These indicators would be developed collaboratively, publicized at annual public presentations, and continuously revisited in order to generate genuine information feed-back. The first indicator—energy consumption—will be developed via a town-wide energy audit, using the Rocky Mountain Institute model.

B. Prioritizing actions to improve sustainability in town: The committee will be advisory to the town’s land-use commissions, and will serve to coordinate information and actions among the many groups in town working towards sustainability. Regular (monthly or semi-monthly) meetings would serve to increase communication among town agencies.

