

# Sustainable Community Practices for Longmont

## Introduction

Sustainability is a concept that encourages communities to implement public and private practices to create and promote self-supporting and environmentally responsible urban areas. As the national and global economies become more turbulent and uncertain, the need for communities to be self supporting becomes more apparent.

Initially a concept to encourage more responsible environmental practices, sustainability has evolved to encompass many broad issues that range from matters as specific as backyard hens to water and energy conservation, community agriculture and land development regulations. *Focus on Longmont*, our community's strategic plan, encourages Longmont to develop community-supported strategic policies that, if followed, will result in a balance between resources and expenditures that sustain Longmont's capacity to provide desired municipal services as the City approaches build out of the Longmont Planning area. Land use decisions are a major factor in reducing the environmental footprint of any City. Land use management affects almost everything in our daily lives and is based on how a City is planned and developed. These decisions impact housing, the transportation network, economic development, energy usage, water and air quality, and many other factors. Community sustainable goals and programs are aimed at managing land use to assure that the needs of the present are met without compromising the ability of future generations to meet their own needs. A sustainable community incorporates many of the following concepts in a land use context:

- A range of housing opportunities and choices for all citizens;
- Neighborhoods that promote walking and alternate modes of transportation;
- Mixed land uses that create a high quality of life and promote economic stability;
- Preservation of open space, agricultural land and environmentally sensitive or critical parcels;
- Promotion of infill and directing development to existing areas;
- Building methods and designs that emphasize environmental responsibility; and
- Opportunities for economic development that match the community's sustainability goals.

Sustainable land use decisions that align with a community's visions and goals are a result of input from many parties, including land owners, City government, business and industry, environmental interests and citizens.

This paper reviews how two sustainable community practices create opportunities for the City to encourage a more stable and renewable future: low impact development and local agriculture. If used, both of these, like all land use decisions, would be tied to the Longmont Area Comprehensive Plan (LACP).

## **Longmont Area Comprehensive Plan Update (LACP)**

As Longmont matures and moves away from greenfield development, the focus in land use changes to infill and redevelopment rather than new growth. As these changes occur, the priorities of the community evolve toward incorporating more sustainable models for the future. The City shifts its priorities and vision to reflect these conditions, while continuing to enhance the quality of life for Longmont residents.

The LACP is the City's primary document for planning for its future. It is a guide, rather than a regulation; it is the framework that the City uses to discuss and evaluate decisions related to growth and development. The LACP, with its collection of goals, policies, and strategies, defines the visions that the community has for its future and establishes the general methods to use in realizing those visions.

### **City's Approach to Growth Management**

According to the LACP, growth should be positive for the City; the City should accommodate growth that enhances the quality of life and the environment.

The City uses a "three-tier" planning process to guide its growth and development. It consists of the Municipal Service Area (MSA), the Longmont Planning Area (LPA), and St. Vrain Valley Planning Area (SVVPA). In addition, there is the Coordinated Planning Area (CPA) in Weld County. This system provides a tool for managing the City's growth and development. In conjunction with the "three-tier" process, the City has adopted components of other growth management systems, such as the Quality of Life Benchmarking Program.

The City's application of the Quality of Life Benchmarks can influence the timing of development in specific areas related to the availability of infrastructure and services. This process allows for the public sector to manage private sector growth, including requiring growth to carry all development costs, i.e., providing necessary infrastructure and services to meet the benchmarks, and ensuring that the proposed development is consistent with the City's growth management objectives of improving quality of life.

### **Planning for a Sustainable Longmont**

Many current LACP goals and policies already incorporate the base concepts of smart growth and sustainability. For example, the LACP mandates that new development be self supporting in terms of the physical and social services it requires and that new development not create an additional burden on the existing community. The planned neighborhood concept, which promotes a mix of uses within a geographic area to serve the daily needs of City residents, is a fundamental concept of a sustainable community and a fundamental element of the LACP. This concept has led to a built environment where most residents have easy access to shopping, schools and parks. Where these facilities do not yet exist, they are planned for. A good example is the neighborhood shopping center property located at Airport Road and Clover Basin Drive. Future development on this site will complete a system of mixed housing opportunities, and

educational, employment and planned recreation facilities for the Clover Basin neighborhood.

There remains some undeveloped neighborhood land north of Longmont in the Terry Lake neighborhood, but the built environment of Longmont is approaching a more mature condition, and the LACP should be updated to emphasize this continuing shift from greenfield growth management to one of sustainability management: a shift from growth and development to a stable economy with renewable environmental and social practices. An update to the LACP would provide an opportunity to address the concept of sustainability from an overarching policy standpoint.

During an update process, new elements could be added and existing elements enhanced to support sustainability and other changing priorities of the community. Examples of elements that could be added or given more prominence include infill and redevelopment, mixed-use and transit oriented development (TOD), low impact development (LID), active community environments, food security, age friendly development, and climate change. During the update process, other sustainability concepts could be identified that would be appropriate for further study as sustainability is an ongoing and evolving process.

Acknowledging that an increasing emphasis is now being placed on infill and redevelopment rather than new growth and that there is a call for more sustainable models for the future, the City's planning process and systems must refocus on management objectives, benchmarks and indicators that embody the concept of sustainability.

### **Interconnectedness of Issues**

The shift to sustainability management seeks to balance economic growth, community social development, and environmental conservation while anticipating and accommodating the needs of current and future residents. The consideration of economic, environmental and social aspects is often referred to as "triple bottom line" analysis. This approach requires that a wide range of topics are addressed and the interconnections between issues are identified. These interconnections allow mutually beneficial actions to be encouraged and negative consequences to be avoided or mitigated. Some examples include:

- Supporting local agriculture and farmers' markets in order to increase the availability of local, healthy food to local residents and local restaurants, which enhances food security and promotes better physical health.
- Developing "complete" streets to accommodate multiple modes of travel, which makes it easier for residents, visitors, and employees to walk and bike to destinations. This improves public health by encouraging increased physical activity in one's daily routine. Complete streets and active living strategies increase mobility options for populations that do not drive, including seniors, youth, people with disabilities, and those with lower income. Mobility options for Longmont residents also promote personal independence for some age and

economic groups, which leads to improved mental health. The use of multiple modes of travel also positively impacts air quality (reduced tail pipe emissions) and water quality (reduced polluted runoff) because there are fewer vehicles on the road.

- Encouraging mixed-use development, including a mix of housing types and higher residential densities, could create development patterns where transit becomes a feasible option. This helps reduce vehicle miles traveled (VMT), which in turn can improve air and water quality (see example above). Mixed-use TOD (transit oriented development) creates a more stable long-term economy, providing revenue and encouraging a better jobs-to-housing balance.

The various elements of the LACP work together to form the *comprehensive* vision for the community. The interconnectedness between the elements of the LACP is especially evident when trends of several benchmarks and indicators are examined and correlated with one another. Since so many elements are inextricably linked, it makes sense to comprehensively evaluate all of the impacts with an understanding of these complex relationships. This would provide a solid basis from which key decisions could be evaluated.

Since the LACP is a guide and not a regulation, the City adopts and relies on other measures to implement it. Reorienting and strengthening of the concept of sustainability within the LACP would further the implementation of sustainable principles within the many functional plans, policies, programs, and regulations that support the LACP. Such an effort would assist the City in updating and or developing tools such as the Land Development Code, for example, that would enable and encourage development that is beneficial to Longmont's triple bottom line.

### **Water Quality Sustainability Practice - LID**

One of the City's functional areas where sustainable principles are being developed is in the water quality aspects of stormwater management. Federal and state stormwater regulations require the City of Longmont to implement measures to reduce the impact on water quality and stream health from pollutants carried by stormwater runoff. The City's storm drainage system needs to effectively remove rainfall and snow melt from streets and properties and at the same time minimize the associated pollutant loadings. Finding cost effective measures to achieve these requirements has led to the use of best management practices called Low Impact Development (LID).

LID is an innovative stormwater management approach that uses various methods to simulate natural, undeveloped site conditions. LID techniques are based on the premise that stormwater management should not be seen as only stormwater disposal. Instead of conveying and managing/treating stormwater in large, costly end-of-pipe facilities located at the bottom of drainage areas, LID uses small, cost-effective landscape features at the lot level. These features, also known as Integrated Management Practices (IMPs), are the building blocks of LID, and are used to infiltrate, filter, store, evaporate, and detain stormwater in a manner that more closely resembles a natural environment condition. Almost all components of the urban environment have the

potential to serve as IMPs. This includes not only open space, but also rooftops, streetscapes, parking lots, sidewalks, and medians. LID is a versatile approach that can be applied equally well to new development, urban retrofits, and redevelopment/revitalization projects (<http://www.lid-stormwater.net>).

In older, established neighborhoods, a retrofit of LID techniques may include rain gardens, bioretention swales (landscaped soil beds that retain water) and other methods to reduce peak storm flows in order to minimize stormwater-induced erosion of the receiving stream.

In a more complete redevelopment of a neighborhood, opportunities exist to provide many LID features, such as permeable pavement, bioretention, rain gardens, and sedimentation ponds in an effort to reduce pollutants that would otherwise be discharged. Brief descriptions of such projects are attached to this paper.

LID concepts must be carefully evaluated in any given situation because of their dependence on soil types and other geologic and geographic factors. In this part of Colorado there are areas of impermeable and expansive soils that may prevent or restrict the use of LID methods. However, the basic concepts of LID, which include enhancing infiltration and reducing erosion and runoff to mimic natural site conditions, could be evaluated for applicability in most development and redevelopment projects.

LID methods usually are implemented at a lot-scale level and can be cost effective compared to conventional alternatives for both drainage control and stormwater treatment. Although LID is being driven by the need for better stormwater management, it supports the reduction of pollution and environmental impacts that are at the core of sustainable land use. Neighborhood designs that include LID also lend themselves to reduced energy use, alternative transportation, mixed-use development, increased open space, and other ideas that relate to the LACP sustainability policies discussed earlier.

A review of barriers to implementing LID in Boulder County was recently completed by Wright Water Engineers. The study was commissioned by the Keep It Clean Partnership (KICP), a consortium of local governments that was formed to address stormwater pollution. KICP members include Boulder, Longmont, Louisville, Erie, Superior and Boulder County. The study included a review of projects in three jurisdictions (Boulder, Longmont and Erie) and identified site constraints, code and regulatory requirements and other items that restrict the use of LID methods in development projects. The study made recommendations for further work and also provided a draft LID checklist to be used in development review. A copy of the study is attached.

LID methods are one set of examples of sustainable practices related to land use management that encourage the goals and policies of the LACP. These goals and policies then influence the various ways the City could remove the barriers to LID and help make Longmont's development more sustainable.

## **Local Agriculture Sustainability Practice**

Longmont's rich agricultural heritage goes back to the initial settlement of this community as an agricultural center. The initial planning of irrigation ditches by the Chicago-Colorado Colony and the region's rich soils first attracted large-scale agricultural industries to Longmont in the late 1800s and served as a main economic driver well into the 1950s.

Local agriculture supports the sustainability and self reliance of a community. It preserves open land and keeps it in productive use. It beneficially uses available City water resources while producing a variety of crops to feed local populations. Locally produced foods require less energy and produce less carbon emissions associated with transport and refrigeration. Often, the food is fresher and more nutritious. It also provides economic stimulus to businesses and industries. A report released by Colorado State University (CSU) estimates that,

*"Among the fall corn mazes, farmers' markets and winery and brewery visits, 13.2 million tourists experiencing Colorado's agricultural offerings pumped an estimated \$2.2 billion in total economic activity into the state in 2006, ... About \$1.26 billion came through direct economic contributions to the agritourism operators and their surrounding lodging, dining and retail businesses. Ancillary business activities to support the tourism sector accounted for almost another \$1 billion in economic activity. ... Top choices for Colorado agritourism activities include on-farm experiences such as camping and picnicking, photography and art, bird and wildlife watching. Culinary- and heritage-oriented activities such as farmers' markets, food festivals and historical museums/sites, based on the pioneer and ranching history of the West, were also of great interest, according to the report." CSU Press Release 10/18/07*

Longmont residents and organizations continue to support local agriculture in many ways such as the Longmont Farmers' Market, the Second Start Community Garden and the OUR Center's garden. The OUR Center garden not only contributes fresh produce to its food bank but provides a rewarding experience for its clients to do something to give back to the center.

At this fall's Sustainable Harvest Fair, the public made other suggestions about how local agriculture would benefit Longmont environmentally, socially and economically. These suggestions included a "Buy Local" brand for foods produced locally, a permanent building for a Longmont farmer's market, summer job opportunities for youth and educational opportunities for people interested in horticulture. There is strong interest in the community and surrounding areas to expand these opportunities and increase the amount of food products that are produced locally.

Sustainable local agriculture can be implemented in a number of different ways and can include the involvement of many different parties. Some examples include neighborhood gardens and the neighbors who work them; community gardens on public lands or easements where residents and groups maintain them; community-supported

farms on open space land and their customers; and commodity crop farming to serve local businesses. The City of Longmont currently supports community gardens, and land and water leases to farmers to produce commodity crops such as wheat, barley, hay and alfalfa.

There are many resources, incentives and partnerships needed to support and sustain a healthy local agriculture system, land and water being the basic ones. A local composting program could make quality soil amendments available and reduce the amount of organic waste being sent to the landfill. Other, equally important but less tangible factors are needed to encourage sustainable agriculture, including:

- Knowledge of horticulture to produce good yields;
- Local policies and programs that encourage residents to participate in local/community agriculture;
- Geographic information resources (GIS) that identify prime undeveloped areas;
- Partnerships between farmers and businesses/organizations;
- Conservation easements in new developments encouraging new community gardens;
- Changes to land use management plans to make local agriculture a priority; and
- Exploring local agriculture options on City-owned properties, including open space.

The City of Longmont could take a more active role in providing resources and incentives and facilitating partnerships. For example, the City could facilitate the use of its water rights to allow citizens to capture and use rainwater in home gardens. Use of rainwater in this manner is currently not allowable under Colorado water law unless downstream water rights can be protected; there is the possibility that the City could meet the water rights requirements on behalf of its residents. In the area of facilitation, the City could continue to provide a forum for issues that require public debate and vetting in order for all sides to be heard.

Critical to the effective implementation of any of these initiatives is the involvement of stakeholders who represent a broad range of relevant perspectives on the issue. Longmont is fortunate in that there are many partners and experts in the region to help refine concepts, build support and identify best practices to help guide the development and implementation. Longmont is also fortunate to have well informed, articulate and involved citizens who will help provide input to this process. Other partners include the CSU Cooperative Extension Office, Boulder County, Master Gardeners and Composters and other community groups.

We may not know initially what the best mix of solutions looks like, but Longmont is fortunate to be in a position of having many viable sustainable local agriculture practices to choose from. Presuming that locally sustainable agriculture is a recommended objective of the LACP update, the creation of a task force could be one step in creating the stakeholder group and community involvement process on this issue.

## **Questions for Consideration**

Updating the LACP provides an opportunity to consider the specific sustainability ideas discussed in this paper as well as broader sustainability goals. Since a comprehensive plan update required a significant public involvement process, the update would encourage a thorough community conversation about these ideas and other sustainability concepts. With respect to local agriculture, other plans, such as those for Open Space and Union Reservoir, also should be subsequently reviewed and updated to examine the current and future uses of City-owned and managed properties and how (or if) they could be used to support sustainable agricultural practices.

There obviously are significant time commitments and costs for community involvement, education and outreach that would be incurred in updating the LACP and developing and implementing policies and regulations. Staff would like Council's input and direction on the following questions:

- Is the LACP update the appropriate method to consider identifying desirable sustainability programs for Longmont, including those discussed in this paper, Low Impact Development regulations and local agriculture practices? Is this level of community involvement appropriate for the LID and local agriculture concepts discussed in this paper?
- Is the "triple bottom line" analysis an appropriate tool when considering changes to local plans and regulations?
- What additional information would Council like to see with respect to staffing requirements, timing and costs associated with an LACP update and the subsequent development of policies and regulations to create sustainable community practices in Longmont?

## **Attachments**

1. City of Seattle Public Utilities Broadview Green Grid Project Brochure, [http://www.seattle.gov/util/About\\_SPU/Drainage\\_&\\_Sewer\\_System/Natural\\_Drainage\\_Systems/Broadview\\_Green\\_Grid\\_Project/COS\\_002624.asp](http://www.seattle.gov/util/About_SPU/Drainage_&_Sewer_System/Natural_Drainage_Systems/Broadview_Green_Grid_Project/COS_002624.asp)
2. City of Seattle Public Utilities High Point Project Low Impact Development Practices and Flow Paths, [http://www.seattle.gov/util/About\\_SPU/Drainage\\_&\\_Sewer\\_System/Natural\\_Drainage\\_Systems/High\\_Point\\_Project/index.asp](http://www.seattle.gov/util/About_SPU/Drainage_&_Sewer_System/Natural_Drainage_Systems/High_Point_Project/index.asp)
3. Breaking Down the Barriers to Low Impact Development in Colorado by A. Earles, D. Rapp, J. Clary and J. Lopitz,