



City of Lewisburg
Comprehensive Plan
Update

Final Draft: September 2015

Chapter 6: Sustainability



City of Lewisburg Comprehensive Plan

Local Government Initiatives

Recycling

Residents can utilize free, curbside recycling twice per month in Lewisburg. Recycling includes aluminum, #1 and #2 plastic, steel cans, paper, cardboard, and electronic devices. The City also celebrates America Recycles Day to raise awareness and educate residents on the benefits of recycling. As part of the celebration the City awards a resident or business for outstanding recycling efforts.

Tree Inventory

The City of Lewisburg has initiated a tree inventory to address tree maintenance. The inventory helps the city determine priorities, scheduling, and budgeting.

Ordinances

The City of Lewisburg has been very proactive in preparing the community to be resilient to any future hazards. The city has enacted several ordinances to prepare for future issues that may occur.

Tree Ordinance

The tree ordinance was enacted in 2001 and regulates the planting, maintenance, preservation, and removal of trees on public property. A tree board was also created with a tree warden to assist in administration and enforcement of the ordinance.

Karst

Karst is a terrain with distinctive landforms and hydrology created from the dissolution of soluble rocks, principally limestone and dolomite. Karst terrain is characterized by springs, caves, and sinkholes. Karst has a unique hydrology that results in aquifers that are very productive but vulnerable to contamination (USGS, 2014). Karst areas also can experience sinkhole subsidence and sinkhole flooding.

Lewisburg's Zoning Ordinance requires a Stormwater Drainage Plan as part of the site plan review process. The plan requires the proposed development take into account the karst geology of Lewisburg.





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Overlay Districts

Lewisburg's Zoning Ordinance includes provisions for a Scenic Corridor Overlay district to preserve important visual qualities and scenic appeal of community entryways along U.S. 60 and U.S. 219. Regulations for the overlay district include the regulation of site development and tree preservation guidelines. The Planned Development Overlay District includes regulations regarding residential development and preserving tree cover and open spaces.

Resolutions

Appalachian Forest Heritage Area Resolution

The Lewisburg City Council passed a resolution in 2004 to support participation in the Appalachian Forest Heritage Area. The purpose of the heritage area is to encourage tourism in various counties in Southern West Virginia.

Resolution 360

The Lewisburg City Council passed a resolution in 2011 that stated that the state's regulations regarding hydraulic fracking are inadequate to protect the Greenbrier Watershed and water systems and asked the legislature to stop issuing permits for drilling until new regulations are enacted.

Resolution in Support of Wilderness

City Council passed a resolution in 2003 to support the designation of parts of the Monongahela National Forest as wilderness areas to protect the wildlife and scenic beauty and help provide for clean water and air.

Resolution in Support of National Monument

City Council passed a resolution in support of the first national monument in West Virginia. The Birthplace of Rivers National Monument would further preserve recreation, water quality, scenic beauty, and wildlife habitat in the region. Lewisburg hopes that the designation brings economic benefits as the city is a gateway to the National Forest.



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Energy Efficiency

The City of Lewisburg is working with Solar Holler to install photovoltaic panels on a city maintenance building. Solar Holler is a start-up company that will help non-profits and local governments access solar power. The goal is to create a community owned LLC to access tax credits and then lease the system back to the city or non-profit organization.



Local Food

A community garden is located behind Dorie Miller Park. The garden operates on a donation-only budget and offers beds to residents for a fee. There are a total of 27 beds, of which a few are communal and anyone can pick the vegetables.

The City of Lewisburg is also home to two (2) farmers markets: Greenbrier Valley Farmers Market and the Lewisburg Farmers Market. The Greenbrier Valley Farmers Market is held on Wednesdays from 3 PM -7 PM and Saturdays from 8 AM-1 PM. The market is located on Arbuckle Lane and Route 219. The market typically opens in April and runs until October. The Lewisburg Farmers Market is located in downtown Lewisburg on East Washington Street. The market is open from April until October on Saturdays from 8:30 AM—1:00 PM.

Conservation

The City of Lewisburg recently participated in a commercial energy audit for city hall. As part of the process downtown businesses were audited as well. The city has begun to make improvements suggested in the audit by replacing current lights with LED lights.

Balanced Transportation

The City of Lewisburg has initiated a sidewalk project to connect the downtown to the commercial area of the City on Route 219 in order to make the city more walkable. The City has also led the efforts in developing the Lewisburg and Ronceverte Trail, which will eventually connect both cities via a walking and biking trail.





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Needs Assessment

The city is on the forefront of the sustainability movement. One way the city feels that they can achieve sustainability is through promoting alternative transportation; such as bike paths, walkable initiatives, and modification of traffic patterns. Providing and promoting local food is also a high priority for those living in Lewisburg. There has been a movement to initiate a buy local campaign, not only for food but for local goods as well. Better promotion of this campaign is needed in order for it to gain traction.

The city realizes that more can be done to protect the environment and achieve energy sustainability. The City would like to embrace realistic green initiatives and demonstrate leadership in the sustainability movement. A thorough review of the city's ordinances should occur to determine what types of best management practices should be included to encourage sustainability and conservation.

A big issue affecting the city is stormwater runoff. Stormwater issues in the city are further exuberated by the karst topology. The city also has combined sewer systems, which collect stormwater runoff and sewage in the same pipe. This is a concern, especially during high rain events and snow melt.

The city has been proactive in recognizing issues with stormwater and has regulations regarding stormwater in the subdivision and land development ordinance. The city is also working on reducing stormwater runoff problems in the downtown. Local developers have analyzed stormwater drainage in recent development to determine the best solutions moving forward. Education is a key component in addressing stormwater issues. The city has started educational efforts, one of which is storm drainage stencils.

The protection of the water supply for residents of Lewisburg and downstream communities is also a concern. The City of Lewisburg operates the local water system for city residents, as well as for those outside of city limits. The Greenbrier River is the water source and the intake is located within Greenbrier County. The city has no control over land use regulations near the river or the intake, which could negatively impact water quality. To address water quality issues and concerns, Lewisburg partnered with the West Virginia Land Trust to develop a source water protection plan.



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Goal: Conduct governmental functions in a sustainable manner and encourage sustainability within the community

Objective 1:

Increase transportation options

Action Plan

Action Step 1: Continue to develop a complete sidewalk network

Lewisburg has been very active in extending sidewalks throughout the city. The city should continue to develop sidewalks in locations that are in need due to increased pedestrian activity. Existing sidewalks should be mapped, as well as areas that are in need of sidewalks. The city can then use the mapping to help determine priorities and outline a plan for constructing sidewalks.

Objective 2:

Encourage the use of local foods to residents and visitors

Action Step 1: Continue to support the buy local campaign

A buy local campaign is essential in helping Lewisburg not only promote local foods, but local business as well. There are many environmental and economic benefits of buying locally that should be publicized to area residents. The City of Lewisburg should continue to support the buy local campaign by helping publicize the efforts and benefits on the city website and Facebook page.

Action Step 2: Continue to support the development community gardens

Many urban areas lack sufficient land for people to plant gardens. For this reason community gardens have become popular because they are a way for people to enjoy fresh fruit and vegetables locally. Lewisburg currently has one community garden located in Dorie Miller Park. The garden is very successful and could possibly be expanded. The city should consider additional locations for community gardens, especially in areas of the city that are vacant or underutilized.



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Objective 3:

Ensure that new development takes into account stormwater runoff issues and the karst topography

Action Step 1: Provide education to local residents on how to minimize the impacts of stormwater runoff

There are many actions that residents can take to help minimize the impacts of stormwater runoff. The City should publicize a stormwater guide to provide to residents that details simple steps that can be initiated to help with stormwater issues and concerns. Simple steps include:

- Properly dispose of all hazardous substances (paint, oil, etc)
- Keep storm inlets free of trash and debris
- Use fertilizers and pesticides properly
- Report construction sites that are not managing stormwater effectively
- Report discharges from the sewer system in dry weather

The benefits of rain gardens and rain barrels should also be publicized. Rain gardens are depressions or holes in the ground that are planted with native plants to help reduce stormwater runoff. Rain barrels collect rainwater from rooftops that can then be used to water lawns and gardens. There are many benefits of rain barrels; cost-savings on water bills, reduced amount of stormwater runoff, conservation of water, and the recharging of groundwater.

The city should form partnerships with local environmental groups to publicize the benefits of rain gardens and barrels. The city should also consider installing rain gardens and rain barrels on city-owned property to lead by example.

Case Study

The Charleston Stormwater Program sells various types of rain barrels to residents. The program periodically holds rain barrel workshops where barrels are given away for free. In order to raise awareness of the benefits of rain barrels, the program also has schools, the public, and local artists paint rain barrels.

Charleston has also planted rain gardens throughout the City. The rain gardens collect storm water from parking lots to help reduce the impact of impervious surfaces on stormwater drains and bodies of water.



Source: www.facebook.com/CharlestonStormwater/



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Action Step 2: Review land use regulations to prevent karst hazards

Buffering and landscaping standards should be incorporated in the subdivision and land development ordinance (SALDO). Specific requirements should be included that detail regulations regarding landscaped islands, naturalized stormwater drainage basins, and native plants. Regulations should also include standards for rain gardens, rain barrels, and natural planting beds.

Low impact development (LID) standards should be considered for inclusion in existing land use regulations. Low impact development is development that tries to keep as much stormwater onsite through the use of catchment cisterns, downspout disconnections, vegetated swales, retention and detention ponds, use of pervious surfaces, vegetated roofs, and riparian buffers. LID is usually site-specific and should be implemented during the initial design phase.

Conservation subdivision design should also be incorporated into zoning regulations and the subdivision ordinance. Conservation subdivision is a development strategy that aims to protect as much open space as possible in a housing development, sometimes as much as 60 percent. Homes are grouped together and the rest of the land is left as open space. Zoning regulations should be flexible in regards to lot size and setbacks. Regulations can also include density bonuses for developers to encourage conservation subdivisions in a community.

Other options to consider during any revision of land use regulations include the requirement of buffer areas around karst features and the inclusion of performance standards in the zoning ordinance to address karst concerns.

Objective 4:

Protect the water supply for current and future generations

Action Step 1: Implement recommendations from the source water protection plan

The city is currently working on a source water protection plan. The city should implement high priority recommendations in the plan as financial conditions allow. The city should also consider working with Greenbrier County to implement recommendations.

Action Step 2: Create stormwater maps to aid in protection of the water supply

The city should create GIS (Geographic Information Systems) maps of stormwater drainage and sink holes. The maps would help direct the city's stormwater management plan.