



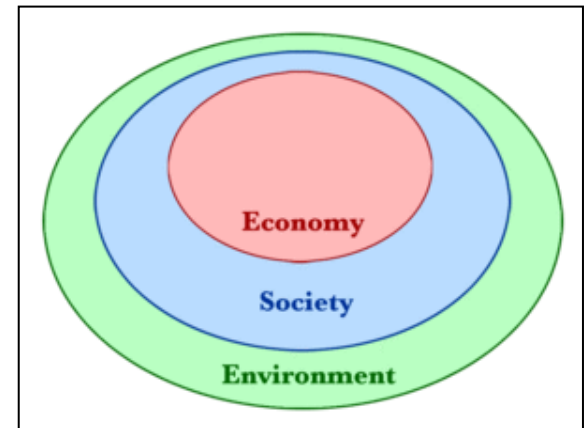
## SUSTAINABLE COMMUNITIES ASSESSMENT FOR LITITZ BOROUGH, LANCASTER COUNTY

8/20/2012

Overview. Between May and late July of 2012, staff from the Brandywine Conservancy's Environmental Management Center (EMC) conducted a focused assessment of Lititz Borough's ordinances, plans, and policies (collectively, the "framework") as these pertain to community sustainability. Using the focused assessment approach allowed EMC staff to investigate Lititz's broad and complex framework given limited time and resources, while yielding clear recommendations for future action.

It may be helpful to define the term "sustainability". Sustainability is widely accepted to refer to: *an approach that meets the needs of the existing generation while not compromising the needs of future generations, while protecting the rights of both.* It is also commonly understood to mean *the responsible use of natural resources such that renewable ones are not drawn down beyond their ability to regenerate, and non-renewable ones are used to the minimum possible extent.* For example, applying this definition to the land-use component of Lititz's environmental framework would mean an approach which *continues the Borough's present policy of encouraging the development of traditional neighborhoods, which support community and also conserve vital natural resources.*

Sustainability is often represented by the graphic shown here, at the center of the three nested circles "environment," "society," and "economy." In Lititz's case, at the municipal level; within its broad regulatory, planning, and policy-making framework; and applied principally, though not entirely, to environmental matters. Specifically, we evaluated the following facets of sustainability: (1) Natural Resource Protection; (2) Water Quality & Quantity; (3) Land Use & Community Character; (4) Global Warming; (5) Renewable Energy & Energy Conservation; (6) Mobility & Transportation; (7) Community Health & Safety; and (8) Food Production & Security. Given the assessment's focus on ordinances, plans, and policies, we did not evaluate any of the Borough's *operations* as they relate to sustainability (e.g., municipal vehicle types and fuels used; procurement of supplies). Nor did we address the major components of the societal and economic circles (e.g., local economies), since we believe these issues may better be addressed through the comprehensive planning process per se. However, that being said, it would be impossible to entirely disentangle so-called "environmental impacts" from the social and economic dimensions.





Methodology. EMC staff attended two meetings in support of the focused assessment, held at the start of the process to gather information and perspective, on June 13<sup>th</sup>; and another on August 8<sup>th</sup> to discuss this draft assessment. Present at both meetings were staff and consultants from Lititz Borough and Elizabeth Township. The final report will be made public August 16<sup>th</sup>, at the monthly meeting of the IMPACT 2017 Steering Committee, in support of regional planning efforts. The intent is that this be an iterative process involving the interplay of multiple knowledgeable stakeholders. Extensive research and analysis was conducted to perform the actual assessment, using either the electronic or paper versions of the following documents:

- ✓ Borough News (May 2012)
- ✓ Downtown Lititz Master Plan (2008)
- ✓ Greenway and Trail Feasibility Study (2004)
- ✓ Lititz Borough and Warwick Township Joint Act 537 Sewage Facilities Plan Update (2007) [*Note, abbreviated herein as “537 Plan”*]
- ✓ Lititz Borough Ordinances, Chapter 34: Bicycles (1961, as amended)
- ✓ Lititz Borough Ordinances, Chapter 38: Burning, Open (1973, as amended)
- ✓ Lititz Borough Ordinances, Chapter 62: Flood Hazard Control (1972, as amended)
- ✓ Lititz Borough Ordinances, Chapter 66: Garbage, Rubbish, and Sanitation (1963, as amended)
- ✓ Lititz Borough Ordinances, Chapter 70: Hydronic Heaters (2008, as amended)
- ✓ Lititz Borough Ordinances, Chapter 100: Sewers (1961, as amended)
- ✓ Lititz Borough Ordinances, Chapter 103: Stormwater Management (1993, as amended) [*Note, referred to herein as the “SWMO”*]
- ✓ Lititz Borough Ordinances, Chapter 105: Streets and Sidewalks (1961, as amended)
- ✓ Lititz Borough Ordinances, Chapter 108: Subdivision and Land Development (1993, as amended) [*Note, referred to herein as the “SALDO”*]
- ✓ Lititz Borough Ordinances, Chapter 118: Water (1961, as amended)
- ✓ Lititz Borough Ordinances, Chapter 120: Weeds (1978, as amended)
- ✓ Lititz Borough Ordinances, Chapter 122: Zoning (1994, as amended) [*Note, referred to herein as the “ZO”*]
- ✓ Lititz Borough Zoning Map (2007)
- ✓ Lititz-Warwick Joint Strategic Comprehensive Plan (2006) [*Note, abbreviated herein as “LWJSCP”*]
- ✓ Oak Street Restoration Plan (2012)
- ✓ Parking Management Plan (2011)
- ✓ Warwick Region Comprehensive Recreation, Park, and Open Space Plan (2010) [*Note, referred to herein as the “WRRC Plan”*]

Results and Recommendations. The results of the rapid assessment of Lititz’s efforts are provided in the charts that start on this page. These charts are organized according to the issues evaluated, while the symbols “+” and “x” are used to indicate the strengths and weaknesses, respectively, of the Borough’s current regulations, plans, and policies as they relate to environmental sustainability. For the same criteria, the letter “n” is used to note a neutral, or adequate, evaluation; i.e., the Borough’s efforts are neither significantly strong nor notably weak. To consider improvements to noted gaps, each chart is followed by recommendations developed through consultation with Borough staff and consultants, EMC staff expertise, and/or EMC staff knowledge of other municipal successes.

Each recommendation is characterized in two ways; first, according to its implementation priority as determined by EMC and Borough staff — i.e., short-term (ST – within the next two years); long-term (LT – beyond two years); and/or Ongoing (recommendations currently underway, should continue as such). A recommendation may be placed in the ST category either because it is relatively simple to implement, or deemed particularly important, or both. LT recommendations are typically more challenging or somewhat less pressing. The second characterization is whether the recommendation removes obstacles to, creates incentives for, or sets standards for achieving sustainability. It is notable that there are a number of recommendations that could fit under more than one of these latter three categories. For example, “Land-Use and Community Character” includes a recommendation to consider working with Warwick Township on a multi-municipal TDR program, with the Borough acting as a receiving area. While this recommendation was placed under the “Create Incentives” category, regulations will be needed to create the actual incentives. Finally, a clear vision for Lititz’s sustainable future should directly inform prioritization, implementation, and/or continuation of any of these recommendations along with broad participation from other Borough officials, residents, businesses, and other key stakeholders.

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## Natural Resource Protection

Key Ordinance Short-Cuts	Key Zoning District Abbreviations (from Zoning Map, 11/08)		
LWJSCP: Lititz-Warwick Joint Strategic Comprehensive Plan	R-S: Residential District (§206)	OP: Office & Professional (§210)	I: Industrial District (§213)
SALDO: Subdivision and Land Development Ordinance	R-1: Residential District (§207)	C: Commercial District (§211)	HAO: Historical Areas Overlay (§214)
SWMO: Stormwater Management Ordinance	R-2: Residential District (§208)	NSD: Neighborhood Storefront District (§211.1)	FDO: Floodplain District Overlay (§215)
WRRC Plan: Warwick Region Comprehensive Recreation, Park, and Open Space Plan	R-2A: Residential District (§208.1)	NSD-1: Neighborhood Storefront District-1 (§211.2)	TNDO: Traditional Neighborhood Development Overlay District (§216)
ZO: Zoning Ordinance	R-A: Residential District (§209)	GB: General Business District (§212)	DOD: Downtown Overlay District (§218)

<p><b>Protect: floodplains</b></p> <p>Floodplain protection serves both to protect private property and conserve valuable ecological resources, and should consider downstream users.</p>	<p><b>Zoning Map:</b> + Floodplains extent delineated on Zoning Map</p> <p><b>ZO:</b> + Floodplain district has reasonable protections</p> <p>✗ but relies on existing “100-year” floodplain designations, which may prove inadequate if hydrologic cycle continues to intensify</p> <p><b>Ch. 62—Flood Hazard Control:</b> + Seeks to minimize property damage from flooding and comply with National Flood Insurance Program</p> <p><b>SALDO:</b> + floodplain required to be kept clear of structures</p> <p><b>Downtown Lititz Master Plan:</b> + calls for an updated floodplain analysis</p> <p><b>Oak Street Restoration Plan:</b> + a project to restore the floodplain and develop a trail along Lititz Run near Oak St and the existing Lititz-Warwick Trailway</p> <p><b>Borough News:</b> + Butterfly Acres Critical Aquifer Recharge Area Restoration protects and restores the floodplain along a tributary to the Lititz Run</p>
<p><b>Protect: riparian buffers</b></p> <p>Riparian buffers provide multiple benefits, from stormwater mitigation to wildlife habitat to aesthetics and more. Research has shown that benefits grow as the width of the buffer grows.</p>	<p><b>ZO:</b> ✗ no specific riparian buffer protections</p> <p><b>LWJSCP:</b> + depicts a small riparian area within the Borough</p> <p><b>SALDO:</b> ✗ no specific riparian buffer protections</p>
<p><b>Protect: woodlands &amp; hedgerows</b></p> <p>It is hard to overstate the value of mature</p>	<p><b>ZO:</b> n entirety of Borough is zoned for development, but this pattern is historic in nature and there are no extant woodlands left to protect</p>



woodlands, which include wildlife habitat, stormwater mitigation, soil conservation, carbon sequestration, mitigation of temperature extremes, improved property values, and much more.	<b>SALDO:</b> <b>x</b> requires just 25% of existing wooded areas to be protected <b>n</b> Borough <i>may</i> require trees removed for construction to be replaced <b>+</b> Form-Based Code includes extensive guidance on use of street / shade trees
<b>Protect: prime agricultural soils</b>  Prime agricultural soils, essentially a non-renewable resource, produce an extensive array of crops with minimal energy input, and provide other significant benefits, such as infiltration, when left undisturbed.	<b>n</b> Borough officials are looking for opportunities to embrace vertical gardening initiatives <b>ZO:</b> <b>n</b> entirety of Borough is zoned for development, but dense development here allows other ag soils to be preserved within the region
<b>Protect: wetlands &amp; hydric soils</b>  Wetlands have been called “the kidneys of the Earth” for their ability to filter pollutants and maintain water quality. They also provide important wildlife habitat and can be a source of beauty.	<b>ZO:</b> <b>x</b> no specific wetland protections <b>SALDO:</b> <b>+</b> wetland study required with all subdivision and land development plans
<b>Protect: steep slopes</b>  Steep slopes require protection primarily to prevent soil erosion and to protect downslope areas from flooding, but also provide valuable habitat.	<b>ZO:</b> <b>x</b> no specific steep slope (15–25% and >25%) protections <b>SALDO:</b> <b>x</b> no specific steep slope (15–25% and >25%) protections
<b>Protect: rare species</b>  No one wants to be a party to extinction, which famed wildlife biologist E.O. Wilson refers to as “the death of birth.”	<b>x</b> Lititz Run, particularly within the Borough itself, is degraded and does not support much marine life. However, much of this is due to pollution of the groundwater which surfaces and forms the Lititz Run <b>ZO:</b> <b>n</b> relies on state protections
<b>Protect: air quality</b>  From the municipal perspective, the primary means of protecting air quality are, (1) to provide for dense, mixed-use development that promotes human-scale transportation choices; and (2) to provide for green infrastructure, which cleanses the air of pollutants.	<b>ZO:</b> <b>+</b> due to the Borough’s relatively dense and mixed-use character, non-vehicular modes of transportation are more feasible and, therefore, air quality is more protected on a per capita basis <b>x</b> substantial parts of the Borough have a suburban-like character with relatively low density and without mixture of uses, which encourages driving <b>Ch. 38—Burning, Open:</b> <b>+</b> prohibits outdoor burning, except in “outdoor grill-type fires” <b>Ch. 70—Hydronic Heaters:</b> <b>+</b> prohibited in the Borough which, given the average property size, makes sense <b>Downtown Lititz Master Plan:</b> <b>+</b> promotes a variety of green infrastructure elements as part of a



	<p>“sustainable design” strategy + considers incentives for BMPs / Green Infrastructure, and for the installation of a green roof in the downtown</p>
<p><b>Identify, map and protect greenways</b></p> <p>Greenways represent a unique opportunity to connect disparate areas into one single whole, while also providing a showcase of a place’s ecological wealth. They provide opportunities for recreation and non-vehicular mobility, and also provide wildlife with vital connections between natural areas.</p>	<p><b>ZO:</b> <b>x</b> no specific conservation zones  <b>Downtown Lititz Master Plan:</b> + While not specifically called out as such, this plan takes seriously the idea of revitalizing the Lititz Run “Greenway” as a key element in a vibrant Lititz  + calls for creation of a green space plan focusing on the Lititz Run  <b>Oak Street Restoration Plan:</b> + a project to restore the floodplain and develop a trail along Lititz Run near Oak St and the existing Lititz-Warwick Trailway  <b>Greenway &amp; Trail Feasibility Study:</b> + produced a vision for greenways and trails that would both better connect Lititz to itself, and to its region  <b>WRRP Plan:</b> + includes map of primary and secondary conservation corridors</p>

### Natural Resource Protection Recommendations

#### Remove Obstacles

- ✓ Investigate the feasibility of setting aside land within the Borough for a woodland reserve, perhaps as a public park, and add to the Official Map. **ST**
- ✓ Investigate feasibility of rezoning portions of the Borough (such as along riparian corridors) as Conservation Zones (or conservation overlays), or add provisions to the ZO or SALDO requiring protection of riparian areas. **LT**
- ✓ As the market for town living continues to increase, consistent with observed demographic trends, investigate increasing density, mix of uses, and redevelopment opportunities in some of the single-use-dominant zoning districts (e.g., the R-S). **LT**

#### Create Incentives

- ✓ Continue efforts to “green” the Borough and attract native species of pollinators, birds, etc. **Ongoing**
- ✓ Investigate opportunities to encourage “vertical gardens,” perhaps including rooftop gardens on green roofs. **ST**

#### Enact Standards

- ✓ Work with knowledgeable institutions to develop an expanded “100-year floodplain” that addresses anticipated increases in extreme weather events. **LT**
- ✓ Investigate the feasibility of protecting any remaining prime agricultural soils, perhaps as a space for a community garden. **ST**
- ✓ Add a definition for the word “riparian” to the ZO and SALDO, and incorporate provisions for riparian areas in both ordinances. **ST**



- ✓ Conduct study to determine extent of existing woodlands, if any, and potential for reforestation, and then set ecologically-based standards for protection of same. **ST**
- ✓ Amend SALDO to require replacement of trees removed due to construction activities. **ST**
- ✓ Amend ZO to incorporate protection of wetlands and wetland fringes. **ST**
- ✓ Conduct a steep slope GIS analysis, and amend ZO to incorporate protection of such slopes. **ST**

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## Water Quality and Quantity

### Water Conservation

<p><b>Ordinance prevents depletion of groundwater and surface water supplies</b></p> <p>It is important to ensure that water resources are not used at an unsustainable rate, both to protect ecological integrity and to ensure a sustainable water supply for human use.</p>	<p><b>ZO:</b> <b>x</b> all of Borough is zoned for development, with no areas set aside (by ordinance) for groundwater recharge or to filter surface runoff before it enters surface water features</p> <p><b>Ch. 118—Water:</b> <b>+</b> Prohibits waste of water</p> <p><b>Borough News:</b> <b>+</b> Butterfly Acres Critical Aquifer Recharge Area Restoration improves infiltration and filtration of stormwater, improving both quality and quantity of the groundwater resource</p> <p><b>SWMO:</b> <b>+</b> requires developed areas to maintain pre-development groundwater recharge capacity</p>
<p><b>Permit/promote harvested/recycled water (e.g., greywater systems, rain barrels) use</b></p> <p>Such measures reduce water consumption and save money and energy.</p>	<p><b>n</b> no specific standards</p>
<p><b>Identify native and drought-tolerant plants for use in required landscaping plans</b></p> <p>Native plants are already adapted to the existing hydrologic conditions, and so do not require the extensive watering typical of introduced species.</p>	<p><b>SALDO:</b> <b>+</b> the Form-Based Code identifies a variety of plant species appropriate to the area</p>

### Water and Sewer Infrastructure

<p><b>Utilize existing public water/sewer lines before expanding or increasing capacity</b></p> <p>Controlling expansion of sewage capacity &amp; water</p>	<p><b>+</b> Lititz Borough is an urban environment entirely within the UGB, and entirely served by public sewer and water; its goal should be to maximize use of existing infrastructure to reduce per capita costs</p>
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supply is a key element in growth management.	<p><b>Ch. 62—Flood Hazard Control:</b> + Requires new/replacement water/sewer systems (including one-site waste disposal systems) to be designed to minimize interaction between infrastructure and floodwaters</p> <p><b>Ch. 100—Sewers:</b> + All sewage must be discharged into the sewer system</p> <p><b>SALDO:</b> + Borough Council has authority to require applicants for subdivision and land development to connect to public sewer system</p> <p>+ all subdivisions and land developments must include connection to public water system</p> <p><b>Downtown Lititz Master Plan:</b> + the Inventory and Analysis notes that the water system has capacity to accommodate increased demand</p> <p><b>LWJSCP:</b> + Future Land Use Map consistent with Act 537 Plan and UGB</p>
<p><b>Ensure the future land-use plan directs any expansion of water, sewer, stormwater capacities</b></p> <p>Proper growth management links the expansion of public utilities to community-created plans.</p>	<p><b>Downtown Lititz Master Plan:</b> + existing water supply adequate to accommodate expected residential growth</p> <p><b>LWJSCP:</b> + future land-use map consistent with UGB and infrastructure service areas</p>
<p><b>Update the community's Act 537 plan based on the future land-use plan</b></p> <p>Since the future land-use plan represents the community's vision, the sewage plan (Act 537 Plan) should be consistent with it.</p>	<p><b>537 Plan:</b> + Lititz &amp; Warwick have a joint plan, which helps to ensure efficient use of expensive infrastructure</p> <p>+ the 537 Plan is fully consistent with the Borough's future land-use plan and shows sufficient sewage treatment capacity, for the region, through 2025</p>
<p><b>Encourage spray/drip irrigation where use of existing treatment is not an option</b></p> <p>Spray/drip irrigation ensures the integrity of the local hydrologic cycle better than stream discharge plants, which send water and nutrients downstream, often requiring costly system design, operation, and upgrades.</p>	<p><b>n</b> The wastewater treatment plant, operated by the Lititz Sewer Authority, treats all of the Borough's wastewater. This plant has been recently upgraded and has very clean treated effluent</p>

## Stormwater Management

<b>Implement stormwater BMPs / green</b>	<p><b>State and Federal mandates:</b> <b>n</b> the Borough is presently waiting for the state and federal governments to finalize requirements, specifically the MS4 program, the Lancaster County Act 167</p>
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<p><b>infrastructure</b></p> <p>BMPs, aka “green infrastructure,” represent low-cost, environmentally-integrated techniques for stormwater management, and can also create community amenities.</p>	<p>Plan, and the Lancaster County Integrated Water Resources Plan. These mandates will drive much of what happens with respect to stormwater in Lititz</p> <p><b>SALDO:</b> + Form-Based Code includes design standards for sidewalk paving materials that require use of brick pavers in certain situations; these pavers allow some water to percolate into the ground</p> <p><b>Downtown Lititz Master Plan:</b> + promotes a variety of green infrastructure elements as part of a “sustainable design” strategy</p> <p><b>Oak Street Restoration Plan:</b> + a project to restore the floodplain and develop a trail along Lititz Run near Oak St and the existing Lititz-Warwick Trailway</p> <p><b>Borough News:</b> + Butterfly Acres Critical Aquifer Recharge Area Restoration improves infiltration and filtration of stormwater, improving both quality and quantity of the groundwater resource</p> <p><b>SWMO:</b> + encourages innovative techniques to manage stormwater, requires impervious areas to be directed to BMPs, and requires a minimum of 70% of on-site drainage to be directed to BMPs</p> <p>n more examples of BMPs / Green Infrastructure could be listed</p> <p>x no consideration for intensification of the hydrologic cycle due to climate change, particularly in Section 404</p>
<p><b>Require Low Impact Development techniques</b></p> <p>Low Impact Development (LID) is a design approach that focuses on conservation and use of natural features to protect water quality on-site.</p>	<p><b>SWMO:</b> + requires maximum use of existing on-site natural and man-made facilities</p> <p>+ requires stormwater to be dealt with on-site, and to maintain pre-development flow</p>
<p><b>Require routine maintenance of stormwater management facilities</b></p> <p>Like all infrastructure, stormwater management facilities are subject to degradation over time, and therefore benefit from ongoing maintenance.</p>	<p><b>SWMO:</b> + requires regular maintenance and includes a detailed description of what maintenance means</p> <p>x however, puts entire onus on property owner, which has been shown, over time, to be insufficient to meet real maintenance needs</p>

## Water Quality and Quantity Recommendations

### Remove Obstacles

- ✓ In line with earlier recommendations, consider setting aside some land (such as along riparian corridors) as Conservation zones to promote groundwater recharge and filtration of runoff. [LT](#)

- ✓ Develop a Green Infrastructure Plan for managing stormwater on a Borough-wide scale (not just in the areas covered by the TNDO), and in a way that has all the other benefits of “green” infrastructure over “grey” infrastructure. **ST**

#### Create Incentives

- ✓ Create a fund, perhaps through a Stormwater Authority (such as is being considered by Lancaster City), to help private property owners maintain their stormwater management infrastructure. **LT**
- ✓ Offer expedited permit approval, fee reductions, or other incentives to property owners and developers who make use of BMPs and Green Infrastructure on their sites, buildings, and in their development plans. **ST**
- ✓ Continue working with the Lititz Run Watershed Association, and use this as a venue for educating residents on stormwater and water quality issues. **Ongoing**

#### Enact Standards

- ✓ Amend SWMO to assist in planning for increased frequency of extreme precipitation events (e.g., in the 2- through 100-year storm events). **ST**

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### Land Use and Community Character

#### Land-Use Planning

<p><b>Steer growth and new development to the most appropriate places within community/region</b></p> <p>Steering growth to existing population centers, such as villages, towns and cities preserves open space and helps to ensure more efficient use of existing infrastructure, while also promoting a sustainable local economy.</p>	<p><b>ZO:</b> <b>n</b> Entire borough zoned for residential, commercial and industrial development</p> <p><b>LWJSCP, Official Map, ZO, Zoning Map, Act 537 Plan:</b> <b>+</b> all are in agreement that growth should occur inside the UGB</p> <p><b>LWJSCP:</b> <b>+</b> Planning Area concept focuses development on what municipal staff and officials consider to be the most appropriate areas</p>
<p><b>Participate in multi-municipal/regional land use planning</b></p> <p>Many issues are best dealt with on a regional rather than municipal basis, and efficiencies of scale can reduce burden on local budgets.</p>	<p><b>LWJSCP:</b> <b>+</b> Lititz Borough has been part of a multi-municipal plan with Warwick Township since 1999; this effort has recently expanded, with the second update, to include Elizabeth Township</p>



<p><b>Ensure planning policies and regulations are consistent with regional growth management plans</b></p> <p>A municipality's policies and regulations are the tools which implement the local plan, and it only makes sense for them all to work in concert.</p>	<p><b>LWJSCP, Official Map, ZO, Zoning Map, Act 537 Plan:</b> + all are consistent, in turn, with <b>Balance</b>, the Growth Management Element of <b>Envision</b>, Lancaster County's Comprehensive Plan</p>
<p><b>Increase density/intensity in urban and village areas where appropriate</b></p> <p>Greater intensity of use and density of population can reduce the per capita cost of infrastructure, helping a municipality's dollars to go farther, while also promoting a sustainable local economy.</p>	<p><b>ZO:</b> + The Borough recently updated its zoning ordinance to include a Traditional Neighborhood Development option, which encourages denser, mixed-use development. Other elements of the Borough's ZO encourage dense, mixed-use development, as well</p>
<p><b>Encourage and/or incentivize infill development and redevelopment of previously-disturbed lands</b></p> <p>Open space is a resource with limited capacity for regeneration, so it makes sense to encourage infill development and redevelopment of previously-disturbed lands.</p>	<p>+ By its very nature, the entirety of the Borough has been previously disturbed, and locating development within its boundaries helps to preserve land further out from urban centers  <b>LWJSCP, Official Map, ZO, Zoning Map, Act 537 Plan:</b> + all are in agreement that growth should occur inside the UGB  <b>LWJSCP:</b> + provides for "Reinvestment Areas"</p>
<p><b>Adopt and implement Smart Growth principles</b></p> <p>Smart growth principles encourage the concentration of development in existing walkable &amp; bikeable communities; transit-oriented development; mixing of uses; a range of housing &amp; transportation options; a sense of place; distinct community boundaries; the preservation of open space and critical environmental resources; and community involvement in land-use decisions.</p>	<p>+ By its very nature, the Borough is fertile ground for "smart growth," with its existing concentration of development, bicycle- and pedestrian-friendly neighborhoods and downtown, bus stops, mix of uses, variety of housing options, and its distinct sense of place  <b>ZO:</b> x nevertheless, large areas of the Borough are zoned for primarily residential uses  x the historic lack of Conservation zoning (or comparable measures) has led to over-development of natural features such as stream/riparian corridors, and consequent ecological degradation  <b>LWJSCP:</b> + seeks to achieve Smart Growth principles, although not specifically called out as such</p>
<p><b>Allow for Traditional Neighborhood Development</b></p>	<p><b>ZO:</b> + TND Overlay District covers R-1, R-2, R-A, R-2A and NSD districts, and requires a mix of uses and housing types  <b>SALDO:</b> + detailed guidelines for TNDs provided</p>



<p>TNDs aim to be complete neighborhoods, with a mix of housing types, a network of well-connected streets and blocks, humane public spaces, and have amenities such as stores, schools, and places of worship within walking distance of residences.</p>	
<p><b>Adopt Transferable Development Rights ordinance</b></p> <p>TDRs are a market-based tool, often used for the preservation of farmland and natural areas, by transferring the “development rights” from these areas to areas with the infrastructure to support more intense/dense development.</p>	<p>n Lititz is not a party to any multi-municipal TDR programs, but has expressed interest in the concept</p>
<p><b>Update municipal comprehensive plan to promote sustainability</b></p> <p>Municipal sustainability begins with the comprehensive plan, which can help to set the vision and subsequent priorities for sustainability.</p>	<p>+ Lititz is currently engaged in an update to its joint comprehensive plan with Warwick and Elizabeth Townships; a focus of this update will be sustainability  <b>LWJSCP:</b> + addresses sustainable regional growth management  <b>x</b> 2006 update develops a strategy for creating two separate and a region-wide EAC (which might help promote sustainability), yet no progress has been made</p>

### Character and Aesthetics

<p><b>Preserve, through zoning and other means, the community’s significant historical resources</b></p> <p>A community’s historical resources are its connection to its past and help to define it as a unique place, worthy of respect and stewardship.</p>	<p><b>ZO:</b> + Lititz has a protected Historic District in its downtown  + Lititz participated with Warwick and Elizabeth Townships in an effort to catalogue all potentially historic structures in the three municipalities, and maintains this catalogue as a GIS database  <b>x</b> outside the Historic Area, there are no protections for historic structures, even if they are identified in the GIS  <b>SALDO:</b> + the Form-Based Code requires new buildings to be designed, built and maintained to reflect the traditional architecture of Lititz  + the Form-Based Code requires new single-family dwellings to have porches  <b>Downtown Lititz Master Plan:</b> + promotes the adaptive re-use of historic structures</p>
<p><b>Encourage and promote, through zoning, the adaptive reuse of historic buildings</b></p> <p>A key element in historic preservation is the</p>	<p><b>ZO:</b> + adaptive re-use of historic buildings is permitted, so long as the historic nature of the structure is preserved  <b>x</b> no provisions to prevent demolition by neglect</p>



preservation of the usefulness of the historic structure, which often relies on creative reuse opportunities.	✗ no provisions to require delay of demolition, which allows for time to discuss alternatives
<b>Preserve through ordinance incentives significant cultural and scenic resources</b> In some cases, historic preservation is best achieved through other parts of the Code.	<b>ZO:</b> + permits the adaptive re-use of historic structures
<b>Enact ordinances limiting both noise and light pollution</b> The livability of a place can be dramatically affected, for good or ill, by noise and lighting.	<b>ZO:</b> + prohibits new uplighting, and requires existing uplighting to receive Special Exception approval for replacement. Prohibits dusk-to-dawn lighting, except by SE <b>SALDO:</b> + requires outdoor lighting to control glare and protect neighbors and the night sky from nuisance glare and stray light. Detailed guidelines on outdoor lighting provided. Fully-shielded lighting required in most cases ✗ however, floodlights and other non-fully-shielded luminaires are permissible with approval of Borough Council + Form-Based Code requires pedestrian scale lights to use a model sensitive to dark sky concerns

## Land Use and Community Character Recommendations

### Remove Obstacles

- ✓ In line with above recommendations, investigate whether any portions of the Borough may be: (a) re-zoned to Conservation status, (b) placed in a conservation overlay, or (c) protected through an addition to the Official Map, to help provide the green space both people and the natural world need. **LT**

### Create Incentives

- ✓ Investigate feasibility of working with Warwick and Elizabeth Townships to allow receipt of TDRs severed in the Townships to be used in the Borough. Lititz's sense of place is as much dependent on the continuity of Warwick's and Elizabeth's rural heritage as it is the Borough's urban heritage. These TDRs could be used for historic preservation, among other things. **ST**

### Enact Standards

- ✓ Re-zone portions of the Borough (such as the R-1 or RS districts) to higher densities, to provide for population growth and redevelopment, and, as density permits and the market supports, allowing some mixed or non-residential development opportunities. **LT**



- ✓ Develop incentives and standards, and amend the ZO, to provide protection of historic structures and neighborhoods whether or not they are in the designated historic area. **LT**
- ✓ Amend ZO to prevent demolition by neglect of historic structures. **ST**
- ✓ Amend ZO to require delay of demolition of historic structures to permit time for discussion of alternatives. **LT**
- ✓ Tighten up standards in the SALDO to make it more difficult to permit non-fully-shielded lighting, as such lighting is only rarely warranted. **ST**
- ✓ Adopt a stand-alone dark sky / outdoor lighting ordinance that sets a date by when existing non-compliant lighting must be replaced. **ST**

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## Global Warming & Climate Change

### Greenhouse Gas Pollution Reduction

<p><b>Enact ordinances to encourage mixed use/Transit-Oriented Developments (TODs)</b></p> <p>Mixed-use and transit-oriented development is the hallmark of strong, well-planned communities. By reducing reliance on fossil fuels, they also have a positive impact on climate change.</p>	<p>+ countywide bus transit already serves the Borough</p> <p><b>ZO:</b> + considerable portions of Lititz are zoned for a mix of uses, either in the base zoning or as part of the TND overlay district.</p> <p><b>LWJSCP:</b> n plan establishes marginal link between transportation and land use (e.g., focuses on road improvements, shuttle bus goal from 1999 Plan received no attention since then),</p>
<p><b>Enact ordinances to allow live-work units and home-based businesses in residential zoning districts</b></p> <p>In existing residential districts, a certain degree of “mixed-ness” may be achieved by permitting and encouraging live-work units and home-based businesses. In an economy struggling to provide full employment, opportunities to work at home may allow a person to remain in his/her home.</p>	<p><b>ZO:</b> + every residential district permits, at a minimum, no-impact home occupations, and the commercial districts also permit residential uses, typically above a ground-level establishment</p>
<p><b>Incentivize green building techniques for new developments and redevelopment projects</b></p> <p>“Green” buildings have been shown to have greater value, be more affordable to maintain, be more</p>	<p>n outside of the areas controlled by the Form-Based Code, the Borough’s ordinances lack provisions to either require or incentivize certain green building techniques for new construction. However, with its historic provisions and extant building stock, a certain green hue may be perceived</p>



attractive to certain demographics, and to have a high return-on-investment in terms of local employment.	<b>SALDO:</b> + Form-Based Code includes design standards that encourage street trees to “reduce cooling load” on buildings and promote walkability + Form-Based Code requires green roofs “to the maximum extent possible” and also requires reflective roof to be installed and maintained
<b>Promote and incentivize reforestation on open space</b> Reforestation provides greater habitat, variety of landscape, stormwater mitigation, and a sink for atmospheric carbon dioxide, the primary greenhouse gas pollutant.	<b>SALDO:</b> + shade trees required along all building frontages. Diversity of species required, and specimens grown in similar climate x but no consideration given to changing climate and northward shift of hardiness zones
<b>Encourage use of human-scale transportation (public transit, biking, walking)</b> Studies have shown that communities which provide opportunities for non-motorized transport are healthier, happier, and have more disposable income. Such communities also emit fewer greenhouse gas pollutants through their reduced reliance on fossil fuels.	<b>ZO:</b> + mixed-use zoning encourages human-scale, non-motorized forms of transportation <b>SALDO:</b> + various provisions require sidewalks and encourage non-motorized transportation x although maximum block length of 1,200’ is a concern <b>Greenway and Trail Feasibility Study:</b> + encompasses a vision for an extensive greenway/trail system in Lititz <b>WRRP Plan:</b> + inventories, and promotes the expansion of, a regional trails network
<b>Develop, adopt and implement a Climate Action Plan to reduce greenhouse gas emissions</b> A Climate Action Plan (CAP) is one way a community can consciously reduce its negative impact on the global climate, while also saving energy, reducing per capita infrastructure costs, and saving money.	<b>WRCA:</b> + Lititz Borough, and Warwick and Elizabeth Townships have participated in Lancaster County’s first and, to date, only Carbon Audit, an assessment of the region’s municipal greenhouse gas pollution emissions, and the cost of same n Lititz, as part of the region, has not yet moved on to the next step of developing a Climate Action Plan

### Climate Change Adaptation

<b>Build resilience by developing, adopting and implementing an adaptation component to Climate Action Plan in the face of present, and</b>	x No specific efforts have yet been made to adapt to anticipated future climatic conditions + ZO: the Borough’s existing zoning provisions, by requiring a dense mix of land-uses, are likely more resilient to a changing future climate than low-density, single-use zoning
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<p><b>projected future, impacts of climate change</b></p> <p>By many measures, climate change has already occurred and is already intensifying local weather patterns; this may be expected to continue.</p>	
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**Global Warming / Climate Change Recommendations**

Remove Obstacles

- ✓ Begin development of a regional Climate Action Plan, built on the Carbon Audit. This plan should include climate change adaptation (e.g., how to cope with increases in extreme precipitation, increased frequency of droughts, increased incidence of heat waves and concomitant heat stress on vulnerable populations [children, the elderly], etc.) as a major topic area. **ST**
- ✓ Work with knowledgeable institutions to take a new look at list of appropriate plant species, with consideration for projected northward shift of hardiness zones. Such a shift will make the continuance of certain species in the Borough untenable, while also providing habitat for species typically found far to the south, now. **LT**

Create Incentives

- ✓ Offer an expedited permitting process and waiver of some or all permit fees for “green” construction. **ST**

Enact Standards

- ✓ Consider requiring an energy audit for all structures at point-of-sale. **ST**
- ✓ Reduce maximum block length in SALDO from 1,200’ to 250’–500’. Shorter block lengths encourage walking, while longer lengths discourage it. **ST**

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**Renewable Energy and Energy Conservation**

**Renewable Energy**

<p><b>Allow solar panels by-right when accessory to a principal use</b></p> <p>As the most accessible distributed, renewable energy technology for private property owners, it is</p>	<p><b>ZO:</b> <b>+</b> Solar energy systems permitted as accessory uses in every district <b>x</b> but the historic overlay district</p> <p><b>x</b> Solar systems may not exceed maximum height of base zoning district</p> <p><b>n</b> Ground-based solar systems prohibited in all districts</p>
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important to reduce barriers to their installation whenever possible.	<b>x</b> Community-based systems and virtual net-metering prohibited
<b>Establish a minimum percentage of solar-oriented lots or buildings in new developments</b>  One major barrier to installation of solar systems on roofs is the orientation of the building. In the northern hemisphere, solar works best on south-facing slopes.	<b>ZO</b> and <b>SALDO</b> : <b>x</b> no such provisions exist
<b>Permit small wind energy conversion systems (WECS) in all zoning districts</b>  Small wind energy systems have minimal impacts, and are an important part of the overall energy mix.	<b>ZO</b> : <b>+</b> Wind energy systems permitted as accessory uses in the Industrial district <b>x</b> but prohibited elsewhere

### Energy Efficiency and Conservation

<b>Encourage new &amp; renovated residential/commercial buildings to achieve LEED, Energy Star, or comparable standards</b>  In the U.S., buildings are responsible nearly half of all energy consumed. Any effort to reduce total energy consumption, therefore, must include building energy efficiency as a crucial element. Energy-efficient buildings also tend to be more attractive investments and therefore have more stable real estate value.	<b>SALDO</b> : <b>+</b> the Form-Based Code includes several provisions promoting more efficient energy use <b>x</b> but standards could be much higher and clearer
<b>Add an energy element to the comprehensive plan</b>  Energy is the most crucial input to the economy, and it is arguable that comprehensive plans which do not consider energy are not truly comprehensive.	<b>LWJSCP</b> : <b>x</b> does not contain such a provision

**Renewable Energy and Energy Conservation Recommendations**

Remove Obstacles

- ✓ Amend ZO to permit solar systems in the historic district (at least when facing away from Main St or Broad St). **ST**
- ✓ Amend ZO to permit ground-based solar systems in appropriate districts (Industrial/Commercial and larger Residential). **ST**
- ✓ Amend ZO to permit rooftop solar systems to exceed the base height of the district by a reasonable, though small, amount. **ST**
- ✓ Amend ZO to permit community-based systems and virtual net metering. **ST**
- ✓ Amend ZO to permit wind energy systems in more zoning districts, recognizing that technology is such that many wind energy systems are less obtrusive and may be roof-mounted (or flown, kite-like, hundreds of feet in the air), reducing (almost negligible) potential for harm from collapsing towers. **ST**
- ✓ Adopt Energy element for Regional Comprehensive Plan. **ST**

Create Incentives

- ✓ Develop incentives, such as expedited permit approval, increased density or building height, and reduction in permit fees, for plans that incorporate recognized green building standards, such as LEED. **ST**

Enact Standards

- ✓ Amend SALDO to encourage maximum solar access to new lots and structures, and set minimum percent, and to encourage unobstructed south-facing roofs whenever possible. **ST**
- ✓ Adopt an ordinance that requires an energy audit at point-of-sale. **ST**

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**Mobility and Transportation**

**Non-vehicular Transportation**

**Encourage Transit-Oriented Development (TOD)**

Mixed-use and transit-oriented development is the hallmark of strong, well-planned communities. By reducing reliance on fossil fuels, they also have a positive impact on climate change.

+ Practically by definition, much of the Borough is a Transit-Oriented Development  
✗ Those parts of the Borough that are lower-density and single-use provide challenges to extension, and use, of mass transit  
**Official Map:** + depicts most bus shelters and stops (missing the route along North Ln)

**Establish sidewalks in residential, village,**

**Ch. 105—Streets and Sidewalks:** + Construction, maintenance and repair of sidewalks required



<p><b>downtown areas</b></p> <p>Sidewalks are the key element in safe, walkable, livable neighborhoods.</p>	<p>by all property owners in the Borough</p> <p><b>SALDO:</b> + construction of sidewalks on both sides of streets required for all subdivision and land developments</p> <p>✗ sidewalk minimum width set at 4.5'. In urban settings, much wider sidewalks are often appropriate</p> <p>+ easements for pedestrian walkways required to have minimum right-of-way width of 10'</p> <p>✗ maximum block length capped at 1,200'; at average walking pace of 3mph, that would take nearly 14 minutes to walk</p> <p>+ in blocks over 1,000' in width, crosswalk required at or near middle</p> <p>+ Form-Based Code requires crosswalks at all downtown street intersections</p>
<p><b>Require bike racks at appropriate locations in new/infill developments</b></p> <p>Appropriately-located bike racks can make cycling significantly easier and more attractive, while also protecting landscaping and infrastructure, which otherwise becomes the default bike "rack."</p>	<p><b>ZO:</b> ✗ lacks standards for bicycle parking</p> <p><b>Ch. 34—Bicycles:</b> ✗ Defines "bicycles" in a way that excludes non-traditional types of bicycles (such as recumbent or those with trailers)</p> <p><b>SALDO:</b> + Form-Based Code includes design standards for bicycle racks</p>

## Roads and Streets

<p><b>Codify "complete streets" principles in the SALDO and embrace PennDOT's new Smart Transportation design standards which emphasize context-sensitive design</b></p> <p>Complete streets designed and maintained to ensure accessibility to all users, including motorized and non-motorized traffic and public transit. Such streets would include sidewalks, crosswalks, medians and raised crosswalks where necessary, pedestrian signals, bulb-outs, staggered parking, street trees, pervious paving and other green infrastructure measures, etc.</p>	<p><b>SALDO:</b> + Requires streets to conform with original topography, which may aid in mitigating stormwater issues</p> <p>+ shade trees required along all building frontages. Diversity of species required, and specimens grown in similar climate</p> <p>✗ but no consideration given to changing climate and northward shift of hardiness zones</p> <p>✗ Form-Based Code design standards for streets do not include bike lanes</p> <p>+ Form-Based Code design standards for sidewalks are generous</p>
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<p><b>Eliminate the creation of new cul-de-sacs</b></p> <p>Cul-de-sacs discourage connectivity, thus fostering more driving (and fossil fuel consumption) than otherwise would be necessary. Traditional neighborhoods only rarely incorporate these elements.</p>	<p><b>SALDO:</b> <b>x</b> allows for extension of cul-de-sacs  <b>Official Map:</b> <b>x</b> depicts the extension of at least one cul-de-sac (into a longer cul-de-sac)  <b>n</b> leaves many cul-de-sacs as-is, without apparent intention to integrate into street network (which may be impossible in some or all cases)  <b>+</b> depicts the extension of several stub streets into through-streets</p>
<p><b>Use future land-use plan to direct expansion of road capacities</b></p> <p>A well-planned community is one in which the land-use plan and the street plan are coordinated to create the community's vision for itself.</p>	<p><b>LWJSCP</b> and <b>Official Map:</b> <b>+</b> appear to be consistent</p>
<p><b>Maximize existing road capacity (e.g., traffic calming, travel demand management [TDM], etc.) before constructing new roads</b></p> <p>Often, much can be done to use existing road capacity more efficiently, reducing or eliminating the need for new roads. This reduces capital construction costs and ongoing maintenance costs, which can be considerable.</p>	<p><b>+</b> Lititz Borough has participated in countywide traffic light synchronization effort  <b>SALDO:</b> <b>n</b> discourages use of local streets for "through traffic" (meaning trucks), which may result in less efficient infrastructure</p>
<p><b>Plan road improvements to prioritize safety and pedestrian/bike uses</b></p> <p>A road that has been designed with pedestrians and cyclists in mind is one which attracts such users, which promotes public health, a sense of community, saves energy and money, and can promote and support a human-scale business district.</p>	<p><b>LWJSCP:</b> <b>+</b> summarizes various non-motorized transportation successes related to trails  <b>x</b> but no specific mention of criteria used to decide on and fund transportation improvements</p>



## Parking

<p><b>Establish a range of parking standards for commercial uses</b></p> <p>Appropriate parking standards can have far-reaching impacts on a community's development pattern. Often, maximum parking standards are warranted, rather than minimum (which unnecessarily increases the cost of development).</p>	<p><b>ZO:</b> + Incorporates range of parking standards, including counting on-street parking towards minimum requirements and allowing significant reductions in parking requirements in the Downtown Overlay District</p> <p>✗ Nevertheless, ZO focuses on minimum, rather than maximum, off-street parking requirements</p> <p>+ Combining of parking requirements permitted for multiple uses</p> <p>+ Form-based Code requires off-street parking to be in rear of buildings</p> <p><b>Parking Management Plan:</b> n relative to present needs, a surplus of 1,200 parking spaces exists in the downtown, mostly in private lots; this may be an indication that the Borough's minimum parking standards are too high. Adequately managed, this parking will accommodate the growth contemplated in the Downtown Lititz Master Plan; in a sense, this means that older development is financing new development, since building and maintaining parking is expensive</p>
<p><b>Ordinances should require porous pavement, shade trees, landscape buffers in parking lots</b></p> <p>Such "green infrastructure" elements can result in a vastly superior built environment, from an aesthetic as well as a functional point-of-view.</p>	<p><b>SALDO:</b> + Landscaping and buffers required for parking lots</p> <p>+ Form-Based Code includes detailed design standards for landscaping and stormwater management</p>
<p><b>Permit on-street parking wherever possible and appropriate</b></p> <p>The benefits of on-street parking are many: it provides a natural buffer between traffic and pedestrians, it reduces impervious surface, it reduces the cost of development, it reduces the urban heat island effect, it results in a more pleasing built environment, etc.</p>	<p><b>ZO:</b> + Counts on-street parking towards minimum requirements</p>
<p><b>Permit shared parking in non-residential zoning districts</b></p> <p>Shared parking, like on-street parking, has multiple benefits, such as the reduction of impervious surface, the reduced cost of development, and the reduced consumption of land.</p>	<p><b>ZO:</b> + Combining of parking requirements permitted for multiple uses</p> <p><b>Downtown Lititz Master Plan:</b> + promotes shared parking</p>



<p><b>Promote parking demand management techniques</b></p> <p>Parking Demand Management involves the efficient use of parking facilities through motorist information and enforcement. There are two major components to parking management: pricing and supply management. Benefits may include increased throughput, efficient use of the system, reduced demand and increased roadway capacity.</p>	<p><b>Downtown Lititz Master Plan:</b> <b>x</b> calls for a parking strategy to expand parking (but parking Management Plan discovered there is actually excess parking)</p> <p><b>Parking Management Plan:</b> <b>+</b> promotes a variety of ideas and techniques for better management of parking</p>
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## Trails

<p><b>Require the establishment and maintenance of pedestrian/bike trails that connect to public facilities, parks, open space, schools, business/shopping</b></p> <p>Multi-use trails are a crucial element in a region's transportation network, and encourage walking and cycling for work, play and shopping. Trails have also been shown to significantly increase adjacent real estate values.</p>	<p><b>ZO:</b> <b>+</b> TNDO requires 5' sidewalks on both sides of all streets, and to be connected by crosswalks 6'–10' in width</p> <p><b>Official Map:</b> <b>+</b> depicts existing and proposed trails</p> <p><b>Downtown Lititz Master Plan:</b> <b>+</b> calls for the development of the Lititz Run corridor as a "linear green space" that connects to other trails in the community</p> <p><b>Greenway and Trail Feasibility Study:</b> <b>+</b> evaluated the feasibility of a greenway/trail network in Lititz Borough</p> <p><b>WRRC Plan:</b> <b>+</b> this detailed plan includes discussion of the region's intricate trails network</p> <p><b>LWJSCP:</b> <b>+</b> actively plan for and otherwise establish requirements for sidewalks, greenways, and/or trail linkages (e.g., "Safe Routes to School," rails-to-trails, etc.)</p>
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## Mobility and Transportation Recommendations

### Remove Obstacles

- ✓ Revise Ch. 34 to eliminate or modify definition of bicycles. **ST**
- ✓ Amend Official Map to show bus shelters/stops along North Ln **LT**
- ✓ In line with earlier recommendations, investigate increasing density, and adding uses to, certain zoning districts. **LT**
- ✓ Amend SALDO to increase minimum sidewalk width from 4.5' for appropriate zoning districts. **ST**
- ✓ Amend SALDO to reduce maximum block length from 1,200'. **ST**

- ✓ Amend SALDO to clarify language that discourages the use of local streets for truck traffic, but permits/encourages other types of through-traffic. **ST**
- ✓ Develop criteria for prioritizing and funding non-motorized transportation improvements. **LT**
- ✓ Amend ZO to remove minimum parking requirements and set maximums, instead. The Parking Study indicates that there is a large (albeit temporary) surplus of off-street parking, which strongly suggests that minimum parking standards have been excessive. Parking should be built when it is needed, or deliberately planned to accommodate foreseeable needs, not constructed ad hoc at great expense to private landowners. **ST**

#### Enact Standards

- ✓ Amend ZO to incorporate bicycle parking standards. **ST**
- ✓ Amend SALDO's Form-Based Code provisions to include standards for bike lanes. **ST**
- ✓ Amend SALDO to make it more difficult to create new cul-de-sacs and to extend existing ones into through-streets. **ST**

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### Community Health and Safety

#### **Public Health and Safety**

<b>Require street trees and sidewalks in residential areas and village/downtown areas</b>  In addition to making for a more inviting environment for pedestrians, such amenities have been shown to improve public health.	<b>ZO:</b> + TND requires streetscape to be “embellished with street trees” <b>SALDO:</b> + shade trees required along all building frontages. Diversity of species required, and specimens grown in similar climate <b>x</b> but no consideration given to changing climate and northward shift of hardiness zones
<b>Provide adequate active and passive recreational opportunities</b>  Exercise is a key element in an individual’s health, and it has been shown that people exercise more regularly when given opportunity’s to do so close to home and work.	<b>ZO:</b> + TND requires “Greens” in all new TND neighborhoods, and in the Downtown <b>SALDO:</b> + all residential subdivisions and land developments require dedication of parkland or fee-in-lieu <b>Official Map:</b> + Depicts public parks and conservation areas, as well as existing and proposed trails <b>WRRP Plan:</b> + detailed plan for the future of recreation in the region encompassed by the Warwick School District

#### **Solid Waste and Recycling**

<b>Require recycling centers/stations in new</b>	<b>+ Curbside recycling required throughout Borough</b>
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<p><b>developments over a certain size</b></p> <p>In our modern society, the production of waste is nearly unavoidable, but there are many ways in which it can be minimized and, in some instances, eliminated. Recycling permits the more efficient use of natural resources, while also encouraging a more beautiful, livable environment.</p>	<p><b>ZO:</b> + Permits Recycling Centers in the General Business District  <b>Ch. 66—Garbage, Rubbish and Sanitation:</b> + Recycling mandatory by all persons (real and otherwise)  + Requires source-separation of recyclable materials in all residential, multi-family and non-residential units  <b>SALDO:</b> x refuse collection (dumpster) stations required outdoors when indoor storage not required; but no mention of recycling stations  x Form-Based Code design standards for litter receptacles do not include standards for recycling bins</p>
<p><b>Adopt a construction debris demolition ordinance or require construction waste management plan</b></p> <p>A great deal of the waste generated by our modern society comes from development and redevelopment. A municipality can significantly reduce this waste stream by requiring construction waste to be reused or recycled.</p>	<p>x no such ordinance could be found</p>
<p><b>Require salvage/material recycling in demolition permit or land development approval</b></p> <p>Much of the waste generated from development and redevelopment isn't waste at all, and can be recycled back into productive use.</p>	<p>x no such provision could be found</p>

### Housing Diversity and Accessibility

<p><b>Create incentives to promote a diverse housing supply that includes affordable housing</b></p> <p>A diverse community is a much more robust community, both economically and socially.</p>	<p>+ Historically, the Borough has developed so as to have a diversity of housing options  <b>ZO:</b> + TNDO requires new developments to be constructed with a variety of housing types  + Lititz's relatively higher density may allow for some more affordable housing options  <b>SALDO:</b> + the Form-Based Code requires a variety of building types</p>
<p><b>Locate housing within walking distance of businesses, services, employment centers,</b></p>	<p><b>Zoning Map:</b> + Residential opportunities both surround and penetrate within downtown area  <b>ZO:</b> + TNDO requires a mix of residential and commercial development  x substantial portions of the Borough are fairly low-density and far from employment centers</p>





<p><b>public transportation</b></p> <p>Such a development pattern encourages walking and cycling, which can greatly improve the public's health, rather than driving, which reduces it.</p>	
<p><b>Permit smaller lot sizes in appropriate residential zoning districts</b></p> <p>Smaller lot sizes can promote greater diversity of uses, which a complete neighborhood must have and which promotes walking and cycling.</p>	<p><b>ZO: +</b> minimum lot sizes range from 12,500sf (R-S) to 2,000sf in R-A and R-2A districts</p>
<p><b>Permit accessory dwelling units (in addition to primary residence) on residential lots</b></p> <p>One way to provide affordable housing is to permit accessory dwelling units. Often called "in-law quarters," they may also allow extended families to live close together, which has numerous public and private benefits.</p>	<p><b>ZO: +</b> Every residential district either permits apartments by right or permits accessory apartments by special exception</p>
<p><b>Permit second-story (and greater) residential uses in commercial and mixed-use zoning districts</b></p> <p>Perhaps the one element which most simply distinguishes towns and villages from residential areas is the existence of vertical mixing of uses, with retail/offices/etc. on the ground floor and homes above. Such patterns also promote walking and cycling, which improves the public health.</p>	<p><b>ZO: +</b> Every commercial district permits second-story or accessory apartments</p>

### Community Health and Safety Recommendations

#### Remove Obstacles

- ✓ Amend SALDO's Form-Based Code to include design standards for recycling bins as well as for trash receptacles. **ST**

Create Incentives

- ✓ Develop incentives to encourage the use of local or recycled and recyclable materials in building construction. [LT](#)

Enact Standards

- ✓ Require a construction waste management plan that diverts the maximum amount of material possible to recycling centers, and away from the waste stream. [LT](#)

Food Production and Security

<b>Incentivize through ordinances the permanent preservation of agricultural lands</b>  Agricultural lands are a non-renewable resource that, in a world of ever-increasing population, warrant protection.	<b>Zoning Map:</b> <a href="#">n</a> No agricultural zone within the borough
<b>Permit a broad range of agricultural uses by right in rural and semi-rural areas</b>  One way to steward the agricultural economy is to permit it to diversify by allowing complementary uses.	<a href="#">n</a> Lititz Borough has no rural or semi-rural areas
<b>Permit farmers’ markets, farm stands, community gardens in public/open spaces, residential vegetable gardens</b>  These are all key elements in the agricultural economy, and in particular help to promote the <i>culture</i> of agriculture.	<b>ZO:</b> <a href="#">n</a> Neither Farmers’ Markets nor Community Gardens specifically called out <a href="#">+</a> But the Downtown Lititz Farmers’ Market is active and supported by the Borough <a href="#">+</a> Gardening permitted by right in every residential district
<b>Permit small-scale farming uses (e.g., egg production) w/ complementary structures in all residential or mixed-residential zoning districts</b>	<b>ZO:</b> <a href="#">n</a> Definition of “gardening” specifically excludes the “keeping of livestock”, but this does not exclude Borough residents from keeping small numbers of hens and “the odd goat”



Small plots and micro-animal operations are capable of producing a great deal of food for families and their neighbors, thus representing an important element of food security.	
<b>Permit small-scale manufacture of food products within appropriate zoning districts</b> Such operations help to promote local foods and support a local economy, while also providing food security.	<b>ZO:</b> <b>n</b> Silent on this topic
<b>Allow composting as part of gardening and small-scale farming uses</b> Composting is a way to divert one of the primary sources of municipal waste away from the waste stream and back into productive use: soil. All sustainable agricultural operations, as well as home gardens, much incorporate composting.	<b>ZO:</b> <b>n</b> Silent on this topic
<b>Require or encourage fruit and nut trees as part of landscaping requirements</b> Another important piece of the food security puzzle is “edible landscaping.” Native fruit and nut trees can provide a food source for humans as well as birds and other wildlife.	<b>SALDO:</b> <b>n</b> Silent on this topic

### **Food Production and Security Recommendations**

#### **Remove Obstacles**

- ✓ Amend SALDO to add fruit and nut trees to list of acceptable species for landscaping. **ST**

#### **Create Incentives**

- ✓ Consider options for incentivizing “vertical gardening.” **ST**

- ✓ Conduct an analysis of any remaining land in the Borough with high-quality agricultural soils and consider ways to encourage the development of a community garden in that space. **LT**

#### Enact Standards

- ✓ Amend ZO by developing appropriate standards for small-scale food production. **LT**
- ✓ Amend ZO by explicitly permitting composting in all zoning districts. **ST**
- ✓ Amend SALDO and require/encourage a portion of required landscaping to be of edible fruit and nut trees. **ST**

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Conclusions and Summary. Lititz has taken great strides to achieving greater sustainability at the municipal level, within the framework of its policies, plans, and regulations as they relate to environmental, social, and economic issues. Specifically, the Borough has developed a detailed TND ordinance that will help ensure future development supports coherent neighborhoods with vibrant micro-economies, which support environmental sustainability in a variety of ways. Lititz has also taken strides to reclaim the Lititz Run for recreational, economic and ecological purposes, as exemplified by the Downtown Lititz Master Plan. The Borough, along with Warwick Township, supports the extension of a rail-to-trail that will extend from the heart of downtown to Ephrata Borough, seven miles away. Perhaps most importantly, by continuing to support a relatively dense urban environment, Lititz conserves land in the region and provides an economic engine that makes the region an attractive place to live, work and play—an important, though oft-neglected, aspect of sustainability.

Still, there is room for improvement on Lititz’s path to sustainability. Specific examples include recommendations in the Natural Resource Protection section to incorporate protection provisions for riparian areas in both the ZO and SALDO and to increase floodplain levels based on new data showing more intense 100-year storms. Examples in the Mobility and Transportation section include increasing minimum sidewalk width in appropriate areas, adding standards for bicycle lanes and requirements for bicycle parking, encouraging (rather than discouraging) use of local streets for through-traffic, and reducing minimum parking standards. These latter recommendations would improve Borough walkability and bikability, reduce vehicle-miles traveled (VMT), reduce impervious coverage (improving stormwater management) and reducing the cost of development (by eliminating unnecessary, and costly, parking). A final noteworthy recommendation, which could have far-reaching impacts, would be to develop an Energy element in the regional comprehensive plan; such an element should also include discussion of strategies to mitigate against, and adapt to, a changing climate.

Seeking sustainability requires both continued vigilance and extensive patience. Accordingly, the recommendations made in this report are intended to *broadly* guide efforts to achieve sustainability, above and beyond the Borough’s existing efforts. It is notable that many of the recommendations are interrelated both within their own subject area and under the broader umbrella of sustainability. For example, expanding resource protection regulations can reduce greenhouse gas emissions while also providing protection from flooding, as well as having wildlife habitat benefits. Decisions regarding which of the recommendations to implement, or which are even feasible, should be considered first by the Planning Commission in consultation with Borough staff and



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consultants, appointed and advisory officials, and the public, with recommendations provided to the Council. Ultimately, final approval for any recommendation rests with the Lititz Borough Council. EMC staff is ready to answer questions, provide additional information, and otherwise assist as the Borough proceeds forward with implementation.