



THE REGIONAL PLAN

FUTURE

LV Strategy Labs

Summary Document
of Strategy Labs

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Overview: Nine Strategy Labs at a Glance

More than 160 people took part in nine two-hour Strategy Labs held between May 11 and May 21, 2026 at the Lehigh Valley Planning Commission — a key early step in the update of *FutureLV: The Regional Plan*. Participants included community members, experts, business leaders, representatives from non-profit organizations, state and local government, elected officials, students and technical experts. Working in small table groups, participants used the SOAR strategic planning framework — Strengths, Opportunities, Aspirations and Results — to identify and discuss the issues that will shape the future Lehigh Valley across nine themes: Economy; Municipal Development and Land Use (Boroughs and Rural Areas, and Cities and Suburbs); Transportation; Arts and Culture; Environment; Community Infrastructure; Care and Crisis; and Trends and Future Forces.

While each lab focused on its own theme, several priorities surfaced again and again across the nine conversations:

- Regional coordination and collaboration among municipalities, agencies, institutions, employers and service providers was identified in nearly every lab as essential to effective planning and implementation.
- Aging infrastructure and funding constraints were a consistent concern, spanning roads, bridges, utilities, parks, emergency facilities and other municipal assets.
- Workforce shortages, training, and retention — including reducing “brain drain” and removing barriers such as childcare and transportation — were central to the Economy, Care and Crisis, and Trends and Future Forces discussions.
- Balancing growth with preservation of farmland, natural resources and community character was a recurring theme wherever land use was discussed.
- Redevelopment, infill and more efficient use of land emerged as shared priorities for accommodating growth.
- Connectivity: closing gaps in trails, sidewalks, transit, roadways and broadband — was viewed as key to linking residents with jobs, services and amenities.
- Equity, accessibility and affordability were recurring priorities across transportation, arts and culture, infrastructure, and health and safety services.
- Proactive, data-driven planning and resilience to climate risks, natural hazards and rapid technological change was emphasized throughout.

Taken together, participants envisioned a Lehigh Valley that is adaptive and future-ready (Economy); stronger and better connected while preserving local character (Boroughs and Rural Areas); more livable, with housing, jobs and infrastructure better integrated (Cities and Suburbs); safer, more connected and more efficient to move through (Transportation); supported by a vibrant, accessible network of cultural, recreational and historic assets (Arts and Culture); protective of the interconnected

environmental systems that underpin public health and economic competitiveness (Environment); served by coordinated, resilient and future-ready infrastructure (Community Infrastructure); prepared, well-staffed and equitable in its health and safety services (Care and Crisis); and a leader in responsible innovation and future-focused planning (Trends and Future Forces).

The chapters that follow present each Strategy Lab in a consistent format: a summary of the overall themes that emerged across its discussion areas, followed by the main ideas from the LVPC presentation and from the participants' SOAR discussion for each roundtable subtopic.

Summary of Strategy Lab Purpose

Strategy Labs were designed to be a key early component of the development of *FutureLV: The Regional Plan*. By engaging the public on nine focused themed areas that will impact the future Lehigh Valley, the Lehigh Valley Planning Commission (LVPC) staff was able to receive input on a wide range of issues from community members, experts, representatives from businesses and non-profits, and elected officials that will inform *FutureLV: The Regional Plan*.

The nine two-hour Strategy Labs held between May 11 and May 21, 2026 were:

1. **Economy:** How land use, education, workforce and community values converge to shape our future quality of life and economy. It was held May 11 at 3 pm, with 29 participants.
2. **Municipal Development and Land Use: Boroughs and Rural Areas** - How municipal development and land use shape the challenges and opportunities facing our boroughs and rural communities. This Strategy lab was in partnership with Small Cities Lab and the Greater Lehigh Valley Chamber of Commerce. It was held May 11 at 6:30 pm, with 16 participants.
3. **Municipal Development and Land Use: Cities and Suburbs**- How municipal development and land use shape the challenges and opportunities facing our cities and suburban communities. It was held May 12 at 9 am, with 9 participants.
4. **Transportation:** How roads, bridges, transit, and multimodal systems must evolve to support the mobility needs of a growing Lehigh Valley. It was held May 13 at 9 am, with 28 participants.
5. **Arts and Culture:** How arts, culture, historic sites, parks and recreation shape our quality of life and give the Lehigh Valley its unique identity. It was held May 13 at 1 pm, with 38 participants.
6. **Environment:** How the region's strength and vitality depend on protecting and managing its environment for long-term sustainability and quality of life, and how this becomes more complex as the region grows. It was held May 18 at 3 pm, with 15 participants.
7. **Community Infrastructure:** How this growing region must expand and modernize the capacity and resilience of core infrastructure systems—including municipal assets, water, sewer, stormwater, solid waste, gas, electric and communications -- to support future development. It was held May 19 at 3 pm, with 12 participants.
8. **Care and Crisis:** How strengthening our hazard mitigation, emergency services and health care systems is integral to regional preparedness and community well-being. It was held May 20 at 2 pm, with 8 participants in this Strategy Lab.

9. Trends and Future Forces: How rapidly changing technology and societal preferences require us to anticipate change and adapt to support regional development and mobility. It was held May 21 at 9 am, with 10 participants.

Overview of *FutureLV: The Regional Plan*

FutureLV: The Regional Plan is both the Bi-County Comprehensive Plan and the Metropolitan Transportation Plan for the Lehigh Valley, which includes Lehigh County and Northampton County. The Strategy Labs were a key early step in the development of *FutureLV: The Regional Plan*.

FutureLV is a single plan for the region that combines two separate types of planning documents into one plan. It includes the Lehigh and Northampton Counties' joint comprehensive plan, enabled by the Pennsylvania Municipalities Planning Code and prepared by the LVPC as the planning agency for both counties.

This is merged with the Metropolitan Transportation Plan and coordinated with the US Department of Transportation and the Pennsylvania Department of Transportation (PennDOT). The Metropolitan Transportation Plan is adopted by Lehigh Valley Transportation Study, the metropolitan planning organization or MPO arm of LVPC and looks specifically at transportation planning and investment strategies of the region. *FutureLV* addresses the requirements of the Pennsylvania Municipalities Planning Code and Title 23 of the United State Code.

By combining both plans into *FutureLV*, it merges community planning policy with the transportation policy and investment, creating balanced and forward-thinking strategies leading the Lehigh Valley into the future, while addressing the needs of today.

Timelines for updates are both tied to state and federal regulations. The metropolitan transportation plans are required to be updated every four years and plan for a minimum of 20 years. County comprehensive plans must be reviewed at least every 10 years, but the state legislature did not set a plan horizon or length of the planning period. To align regulatory requirements and to make sure that the policies for the region align, the Commission has chosen to continue to develop a single regional plan on an eight-year timeline, with mid-point transportation updates every four years. This update covers both the bi-county comprehensive plan and long-range transportation plan updates.

On the current timeline, plan revisions must be completed and adopted by the LVTS, no later than June 30, 2027. It is anticipated that LVPC and county adoptions will occur simultaneously.

Overview of Strategy Labs

More than 160 people attended nine Strategy Labs held over two weeks at the Lehigh Valley Planning Commission (LVPC) in May 2026. Participants included experts,

representatives from state and local government, business leaders, representatives from non-profit organizations, citizens, students, and technical experts.

The participants at the Strategy Labs used the SOAR strategic planning framework to identify and discuss issues. Issues and SOAR planning occurred at tables with 3 – 6 participants. SOAR stands for Strengths (S), Opportunities (O), Aspirations (A), and Results (R). SOAR was used to help LVPC and the Lehigh Valley region to align strategies with competencies and market potential, focusing on positive aspects to drive growth and change.

- **Strengths (S):** Internal capabilities that give the Lehigh Valley an advantage.
- **Opportunities (O):** Factors that the Lehigh Valley can leverage for growth.
- **Aspirations (A):** The Lehigh Valley’s vision and goals for the future.
- **Results (R):** Measurable outcomes that indicate success.

Following an overview from LVPC staff of the *FutureLV* plan update process, there was an explanation of what a strategy lab is, and then information on a subtopic in the strategy lab, such as Agriculture/Farming Industry, was presented. After the subtopic presentation, 3 – 6 participants at tables elected a “mayor” to lead the SOAR process and to do a report out, and the participants at each table collectively went through the SOAR process for about 10 minutes identifying and discussing issues using the SOAR strategic planning framework to discuss and document issues under that subtopic. There was an LVPC staff member at each table to facilitate the conversation, but not to lead or actively participate in the conversation. Below is an example that was used to explain the SOAR documentation that was shared with the participants that the tables were asked to complete.

Issue	STRENGTHS (S)	OPPORTUNITIES (O)	ASPIRATIONS (A)	RESULTS (R)
SOAR Underlying Questions	What makes us unique?	What are new trends and opportunities we can take advantage of?	What does the future of our region look like?	How will we know when we have accomplished our aspirations/goals?
Sample Issue and SOAR Improve access to training programs for widget developers.	Lehigh Valley has a large and growing widget industry based on our location and number of widget companies.	There is an increasing need for widgets due to the projected growth of products and services that use widgets.	The Lehigh Valley will become a leader in widget developer education to support the growth of the widget industry and to increase the number of jobs in this sector.	By 2050 there will be a 20% increase in people with widget degrees or certifications from LV institutions, and widget industry employment will grow by 30%.

After the SOAR discussion and documentation each table gave a verbal report to the full group. Closing each lab was a presentation of the *FutureLV* adoption timeline, and information on the other strategy labs.

Future Steps

Utilizing the information from the Strategy Labs and the SOAR input, the next steps include:

- **Call for Regional Capital Improvements Projects:** In the Strategy Labs, we were told how the region's environmental, economic and community health and safety is based on the maintenance and availability of infrastructure of all types including transportation, sewer, water, parks, emergency management, schools, community centers, broadband and electricity. It's time to understand what projects are needed now and what is expected to be needed in the future, especially with so many aging systems and facilities and an intensifying need for more. This summer the LVPC will be asking governments, school districts and service providers detailed project needs, estimated costs and timing to be incorporated into *FutureLV*.
- **Targeted Partner Engagement:** We learned a lot from participants in the Strategy Labs about their vision for the region's future, but we would like to take a deeper dive on critical issues. Over the summer and into the fall of 2026, the LVPC will meet with all 62 local governments, key partners from the Commonwealth and service providers to have detailed conversations about specific needs.
- **Regional Priorities Survey:** This survey will use ideas from the Strategy Labs, infrastructure information and targeted discussions to collect additional feedback, prioritization and information that will be used to write goals for the region. It will be released sometime in the late summer/early fall of 2026.
- **Drafting the Plan:** The policy and project lists for the updated *FutureLV*: The Regional Plan will be drafted by the end of 2026. In the fall, expect the LVPC to reach out to review what we have assembled and develop a policy framework and discuss what this means for the Lehigh Valley.
- **Refining the Plan:** Coordination for the federal and state defined public review and comment on the draft *FutureLV* document will be organized in early 2027. This moves the revised regional strategy towards adoption by the LVPC, Lehigh Valley Transportation Study, Northampton County and Lehigh County, as well as acceptance by the Pennsylvania Department of Transportation and US Department of Transportation.
- **Plan Adoption:** The new regional plan will need to be adopted in June 2027. This will ensure that federal and state transportation funds can continue to flow into infrastructure improvements and that we all have a comprehensive plan to move the Lehigh Valley forward.

Strategy Lab Sessions

Information on the nine strategy labs are presented in this section. There are some representative slides included from each strategy lab.

1

STRATEGY LAB

Economy

How land use, education, workforce and community values converge to shape our future quality of life and economy. It was held May 11 at 3 pm, with 29 participants.

Roundtable Discussions: 1) Workforce, 2) Economics of Land Use, 3) Education, 4) Mineral Extraction, 5) Agriculture/ Farmland

Summary of Overall Themes

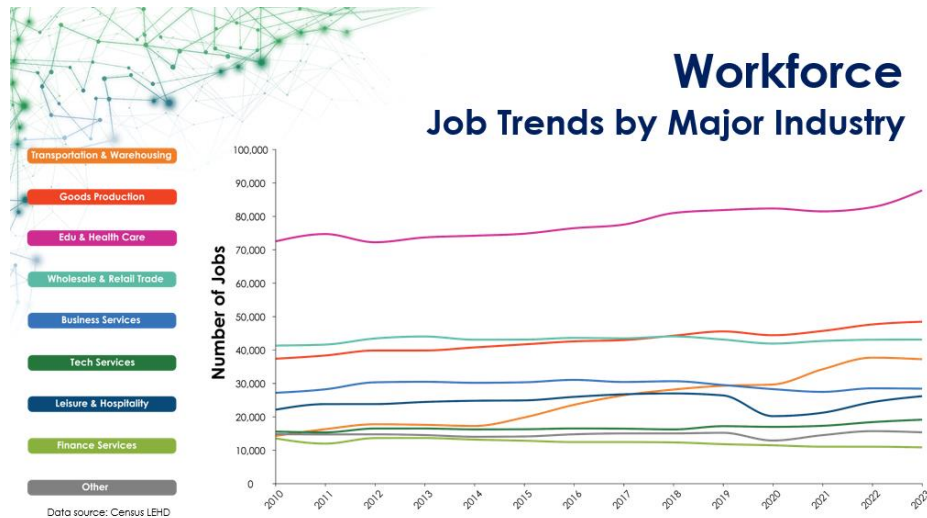
Across all discussion areas, several common themes emerged:

- Workforce shortages and changing demographics were a consistent regional concern, with emphasis on attracting, retaining, and developing talent across industries while addressing an aging workforce and underutilized labor pools.
- Strong alignment between education systems and workforce needs was viewed as essential, with a recurring focus on strengthening career pathways, employer partnerships, internships, apprenticeships, and lifelong learning opportunities.
- Participants consistently emphasized the need to reduce barriers to workforce participation, particularly childcare access, transportation limitations, affordability challenges, and support for nontraditional workers such as veterans, immigrants, and older residents.
- Land use efficiency and redevelopment emerged as a major cross-cutting priority, with strong support for infill development, adaptive reuse of vacant and underutilized sites, and improved zoning and planning frameworks to support mixed-use growth.
- Balancing economic growth with the preservation of farmland, natural resources, and community character was a recurring theme, highlighting the need to manage development pressure while protecting finite regional assets.
- Regional coordination and collaboration were consistently identified as critical, particularly across municipalities, educational institutions, employers, and planning organizations to ensure aligned strategies and more effective implementation.
- Economic diversification and industry transition were central to long-term resilience, including growth in sectors such as healthcare, life sciences, advanced manufacturing and the evolving reuse or modernization of legacy industries and sites.
- A shared emphasis was placed on improving retention of students and young professionals in the region, addressing “brain drain” through stronger job pipelines, quality of life improvements and clearer education-to-employment connections.
- Participants envisioned a more adaptive and future-ready regional system, characterized by integrated planning across workforce, education, land use, and economic development, resulting in stronger fiscal health, improved opportunity access, and sustainable long-term growth.

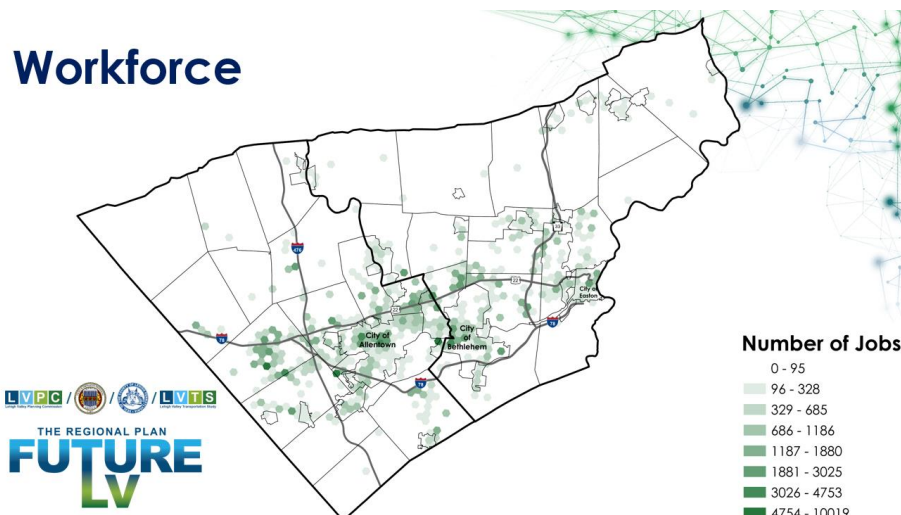
SOAR 1: Workforce

LVPC PowerPoint presentation main ideas summary of this subtopic:

- The Lehigh Valley has a higher labor force participation rate than both Pennsylvania and the national average, showing a strong and active workforce.
- The region's slightly higher unemployment rate indicates more competition among job seekers and employers.
- Education and health care remain the Valley's largest employment sectors, supported by universities, hospitals, and growing service needs.



- Transportation and warehousing, and goods production are key growing industries, reflecting the region's role as a logistics and manufacturing hub.
- The Lehigh Valley has a diverse job base across multiple industries, creating economic resilience.
- Jobs are concentrated along major transportation corridors, including Routes 22 and 33 and Interstates 78 and 476, showing the connection between infrastructure and economic development.



- The Lehigh Valley has become a net importer of workers, with more people commuting into the region for jobs than leaving, a shift from previous years.

SOAR main ideas summary of this subtopic:

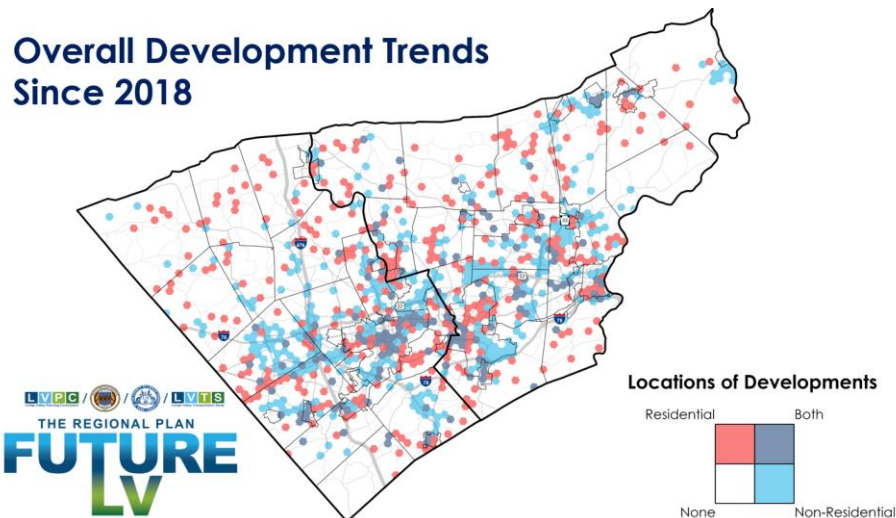
- Workforce availability and labor shortages emerged as one of the most frequently discussed challenges. Participants highlighted the need to attract, retain and develop workers across industries while addressing changing workforce demographics, including aging workers, veterans, immigrants and other underutilized labor pools.
- The region's strong educational ecosystem, diverse economy, and quality of life were consistently identified as key strengths. Colleges, universities, community colleges, technical schools, healthcare employers, life sciences companies and proximity to major metropolitan areas were viewed as valuable assets for workforce development.
- Participants emphasized opportunities to strengthen partnerships between employers, educational institutions, nonprofits and workforce organizations. Greater collaboration was seen as critical for aligning training programs with employer needs, retaining local students and creating clearer pathways from education to employment.
- Workforce training, retraining and upskilling were recurring aspirations throughout the discussion. Participants envisioned expanded adult education, flexible training models, technology and life sciences workforce development, and programs that help workers transition into emerging industries and occupations.
- Childcare and transportation were repeatedly identified as barriers to workforce participation. Participants highlighted opportunities for employer-supported childcare, expanded childcare hours, improved public transportation, and stronger connections between workers and employment centers.
- Several participants discussed the importance of creating a more flexible and inclusive workforce environment, including flexible schedules, part-time opportunities for older workers, accessible jobs and support systems that allow a broader range of residents to participate in the labor force.
- The region's growing life sciences, healthcare, pharmaceutical, semiconductor and advanced manufacturing sectors were viewed as opportunities to diversify employment and create higher-quality career pathways while leveraging existing infrastructure and educational assets.
- Looking ahead, participants envisioned a workforce system that is adaptable, connected and responsive to changing economic conditions. Aspirations included stronger talent retention, affordable housing, improved transportation access, enhanced quality of life and a recognized technology and innovation hub.

- Success was described through outcomes such as lower unemployment, higher labor force participation, increased wages and benefits, reduced poverty, improved affordability, greater public transit utilization, reduced brain drain, stronger talent retention and continued growth across a diverse range of industries.

SOAR 2: Economics of Land Use

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Land use decisions are also economic decisions affecting jobs, tax revenue, and public service costs.
- Residential, commercial and industrial uses each contribute differently to local finances and service demands.
- Balanced land use is important for a stable and healthy community.
- Development follows population growth, jobs and infrastructure.



- Recent growth includes major industrial, commercial, institutional and housing development across the region.
- Industrial growth is along highways, while commercial and services follow population centers.
- Most new housing units are apartments, with townhouses and single-family homes also widely developed.

SOAR main ideas summary of this subtopic:

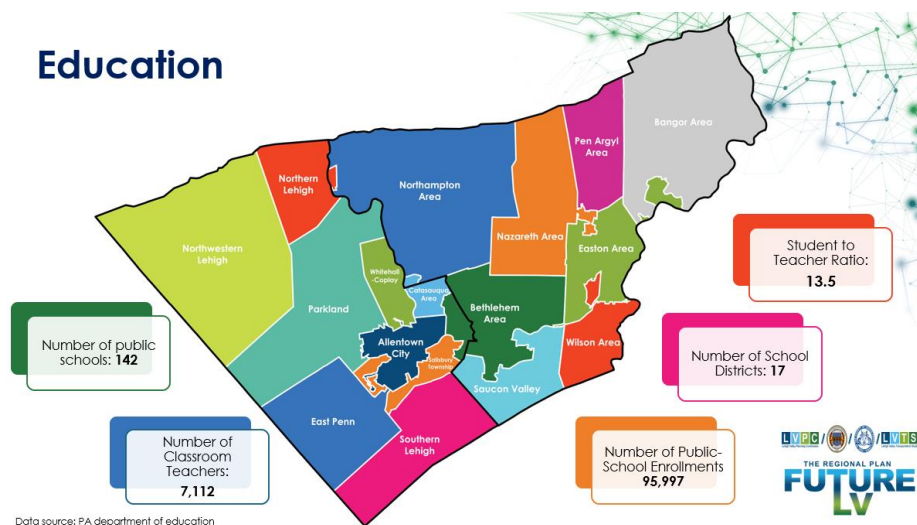
- Participants identified vacant land, brownfields and underutilized properties as a key land use challenge, with ongoing concerns about blight and inefficient use of existing space.
- The region's strong planning capacity, diverse land use mix and existing infrastructure were seen as foundational strengths that support redevelopment and future growth.

- A major opportunity is redevelopment and adaptive reuse, including transforming vacant and obsolete sites into housing, small businesses, mixed-use developments and community-serving spaces.
- Participants emphasized the need for clearer and more modern zoning and land use policies, particularly to support mixed-use development, streamline redevelopment and improve community understanding of higher-impact uses like warehousing and data centers.
- A recurring theme was improving land use efficiency and economic productivity, such as increasing jobs per acre, supporting small-footprint industry and better aligning development with infrastructure and municipal fiscal health.
- Infill development and densification were highlighted as strategies to address vacancies, improve affordability, strengthen job -- housing proximity, and make better use of existing infrastructure.
- Participants also stressed the importance of balancing growth with farmland and open space preservation, ensuring redevelopment does not come at the expense of valued natural and rural assets.
- Small business growth and main street revitalization were seen as important outcomes of repurposing vacant properties, including opportunities for incubators, retail and local economic activity.
- Overall, participants envisioned a future land use system that is more adaptive, mixed-use and redevelopment-focused, leading to stronger fiscal outcomes, reduced blight, more housing and jobs, and more efficient use of land.

SOAR 3: Education

LVPC PowerPoint presentation main ideas summary of this subtopic:

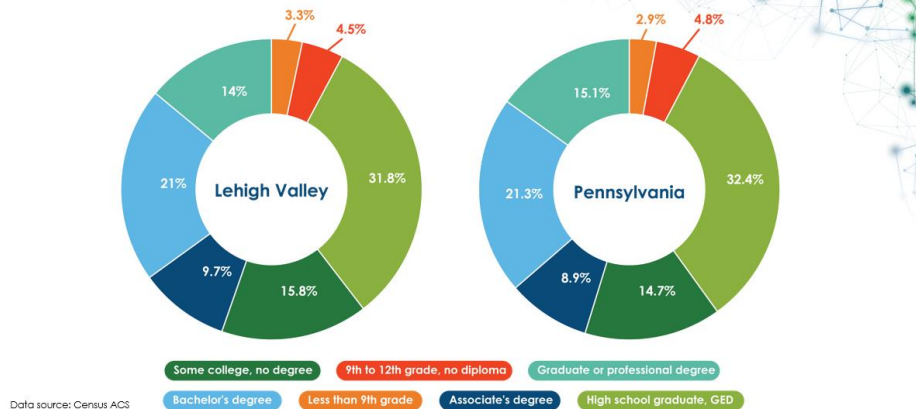
- Lehigh Valley has 17 school districts, 142 public schools and about 96,000 K–12 students.



- Educational attainment is similar to PA overall, with about 40% having no college education.

Education

Lehigh Valley Residents' Educational Attainment



- The region has slightly more people with some college or associate degrees, but fewer with graduate degrees than the state.
- There are about 14 colleges in the region with different types of programs.
- College enrollment includes ~15,000 in community/technical colleges, ~16,000 in private 4-year schools, and ~1,000 in public 4-year schools.

SOAR main ideas summary of this subtopic:

- Adult, alternative and lifelong learning needs were a recurring issue, with participants emphasizing the importance of expanding flexible education pathways such as GED programs, online learning, and employer-based training to better serve nontraditional learners.
- The region's strong educational infrastructure, numerous K–12 schools, colleges and community colleges were consistently identified as a key strength supporting access, attainment and regional talent development.
- Participants highlighted significant opportunities to strengthen career-aligned education pathways, including internships, apprenticeships, on-the-job training, and stronger partnerships between schools and local employers.
- Affordability of higher education emerged as a major concern, with discussion focused on tuition costs, student debt and the need for expanded financial support through scholarships, employer tuition assistance, and public funding mechanisms.
- A persistent theme was the need to address teacher shortages and improve teacher quality, with opportunities identified in paid training pipelines, community college pathways, and incentives to strengthen recruitment and retention in the education workforce.

- Participants emphasized the importance of improving retention of students and graduates, particularly through stronger local job pipelines, reducing “brain drain,” and aligning education programs with in-demand regional industries.
- There was strong interest in expanding technical education and workforce-relevant fields of study, including increasing access to tech schools, STEM programs and certifications aligned with evolving industry needs such as healthcare, technology and manufacturing.
- Emerging challenges such as AI, declining enrollment and changing trust in higher education were noted, with opportunities to adapt curricula, modernize programs and strengthen responsiveness to labor market shifts.
- Looking ahead, participants envisioned a more integrated education system connected to workforce needs, with flexible learning options, improved broadband access, stronger employer engagement, and expanded pathways from education to stable employment.
- Success was described in terms of higher educational attainment, reduced student outmigration, stronger local retention of graduates, more equitable access to education, and a sustainable pipeline between schools and regional employers.

SOAR 4: Mineral Extraction

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Mineral extraction was historically a major driver of the Lehigh Valley economy (iron, steel, and other minerals).
- Today, there are still active extraction sites, but far fewer due to industry decline in the 2000s.

Economy

Mineral Extraction



Egypt Quarry



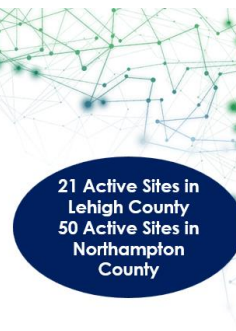
LaFarge Manufacturing



Buzzi Unicem Manufacturing



Ormrod Aggregate



- Mining regulation is primarily controlled at the state level, limiting local planning authority.
- The region focuses more on planning future reuse of former mining sites.

- Former quarries are often reused through backfilling for redevelopment or natural flooding that creates lakes.
- Some reclaimed quarry sites can support recreation, wildlife habitat or environmental buffers.
- Examples in the region show quarries being turned into industrial land or integrated into recreational areas like trails and historic sites.

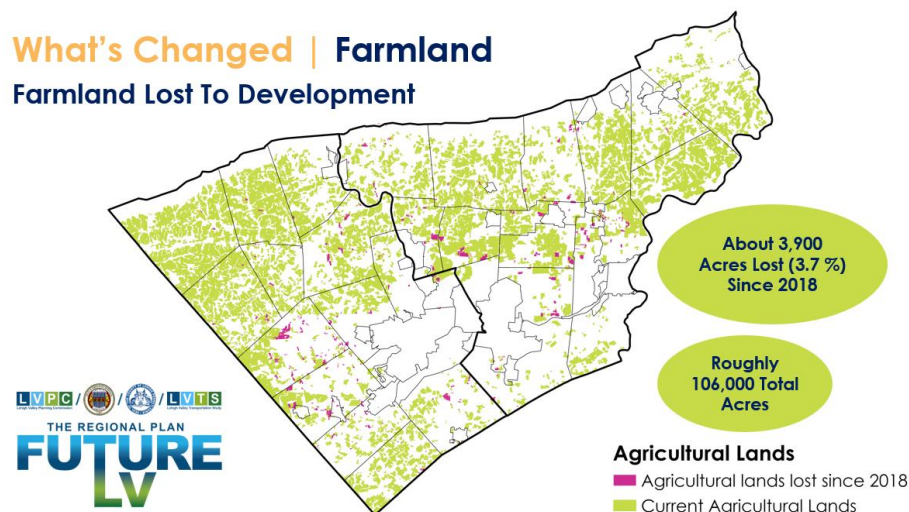
SOAR main ideas summary of this subtopic:

- Decommissioning and post-use planning for extraction sites was a key issue, with participants noting the importance of establishing clear future-use strategies for quarries and mining sites as operations wind down.
- The region's existing redevelopment experience and local models for site reuse were identified as strengths that can support successful transitions of former extraction sites into productive community assets.
- Participants highlighted opportunities to leverage new technologies and engineering approaches to reduce geological impacts, improve site stability and address long-term environmental risks such as sinkholes.
- The need for stronger attention to worker health and safety was emphasized, with the region's healthcare systems seen as an asset in supporting monitoring, treatment and prevention efforts.
- Regulatory constraints and environmental impacts on surrounding communities were noted as challenges, particularly given limited inspection capacity and the scale of extraction activity relative to oversight resources.
- The presence of cement plants and related industrial activity in the region was viewed as a strength that supports economic activity and provides a foundation for workforce training and industry knowledge development.
- Participants identified opportunities for workforce development and career awareness in mining and extraction-related fields, including training programs that better connect residents to industry jobs and technical roles.
- There was interest in developing clearer ordinances and frameworks for reuse of quarry and extraction sites, supporting long-term land planning and community-compatible redevelopment.
- Looking forward, participants envisioned safer, more sustainable extraction practices, improved land restoration, reduced environmental risk and stronger alignment between industrial activity and community development goals.
- Success was described through outcomes such as successful site redevelopment, reduced environmental hazards (including sinkholes), improved worker health outcomes and more sustainable long-term land use planning.

SOAR 5: Agriculture/Farmland

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Agriculture is a major land use and economic sector in the Lehigh Valley with over 800 farms.
- The region produces crops like corn, soybeans, hay, silage, wheat and even wine products.
- Farm products have an annual market value of about \$157 million.
- Most farms (about 92%) are family-owned.
- Agriculture also supports local food systems and provides environmental and cultural benefits.
- Farmland is decreasing due to development, with thousands of acres lost since 2018.



- Loss of farmland is linked to areas with infrastructure expansion and development pressure.
- Future planning focuses on preserving farmland and directing growth to more suitable areas.

SOAR main ideas summary of this subtopic:

- Loss of farmland and development pressure were central concerns, with participants emphasizing the need to strengthen long-term preservation efforts while balancing growth and housing demands.
- The region's farmland preservation boards, conservation districts and strong agricultural conditions (soil, climate, and geography) were identified as key strengths supporting continued agricultural viability.
- Participants highlighted the importance of addressing unsustainable farming practices and climate change impacts, with opportunities to expand conservation strategies, improve resource management and leverage environmental organizations.

- A recurring theme was the need to strengthen farmer education, training and workforce pipelines, particularly to support younger generations entering agriculture and to address the aging farm workforce.
- Agricultural career promotion and farm succession planning were identified as opportunities, including incubator farms, agricultural business centers, and programs that encourage new entrants into farming.
- Participants emphasized opportunities to expand agri-tourism, farmers markets and local food systems, including improved signage, marketing and public awareness of agricultural assets. Financial and policy support mechanisms, such as grants, tax incentives, and federal-level advocacy, were seen as important tools to sustain farms and support long-term viability.
- There was strong interest in promoting sustainable land use planning, including balancing farmland preservation with housing development and increasing green space integration.
- Looking ahead, participants envisioned a more resilient and sustainable agricultural sector, supported by stronger education, improved environmental practices and increased community engagement with local food systems.
- Success was described in terms of continued farmland preservation, stronger generational farm transitions, improved environmental outcomes, and a more stable and visible agricultural economy integrated with regional planning.

2

STRATEGY LAB

Municipal Development and Land Use: Boroughs and Rural Areas

Strategy Lab 2: Municipal Development and Land Use: Boroughs and Rural Areas

How municipal development and land use shape the challenges and opportunities facing our boroughs and rural communities. This Strategy lab was in partnership with Small Cities Lab and the Greater Lehigh Valley Chamber of Commerce. It was held May 11 at 6:30 pm, with 16 participants.

Roundtable Discussions: 1) Boroughs 2) Rural Communities. Roundtable discussions with Local Governments from Boroughs and Rural Communities

Summary of Overall Themes

Across all discussion areas, several common themes emerged:

- Aging infrastructure and funding constraints were a major concern, with emphasis on maintaining and modernizing roads, bridges, stormwater systems and broadband.
- Transportation and mobility challenges were central, including congestion, truck impacts, limited transit options, and the need for safer, more connected systems.
- Strong community identity and quality of life were consistently highlighted as regional strengths, rooted in civic engagement, small-town character, and rural/agricultural landscapes.
- Economic revitalization was a shared priority, focusing on main street vitality, small business growth, adaptive reuse, and rural tourism and agriculture-based economies.
- Farmland preservation and rural land protection remained key concerns, balancing development pressure with the need to sustain agriculture, open space, and environmental resources.
- Regional coordination and collaboration were viewed as essential for improving planning, securing funding, and addressing cross-jurisdictional infrastructure and land use challenges.
- Improving connectivity to jobs, services, and amenities, especially in rural areas, was a recurring theme, supported by expanded mobility options and infrastructure investment.
- Overall, participants envisioned stronger, better-connected communities that preserve local character while improving infrastructure, economic opportunity, and long-term sustainability.

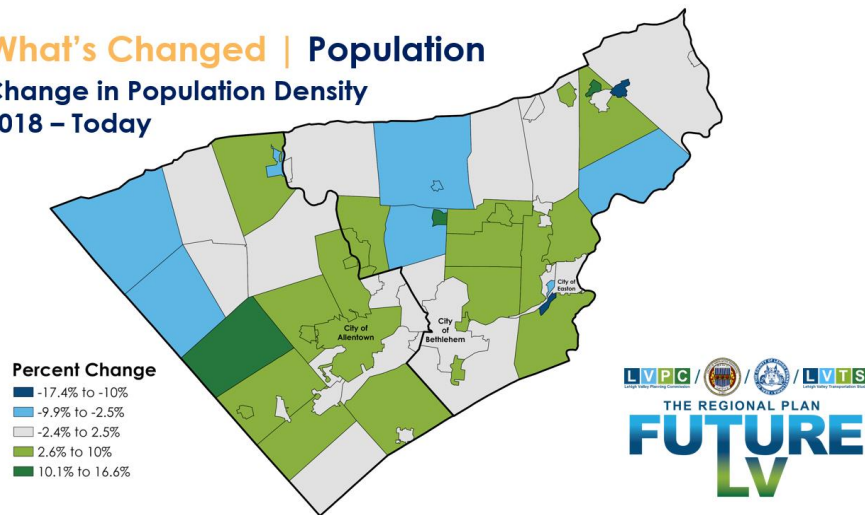
SOAR 1: Boroughs

LVPC PowerPoint presentation main ideas summary of this subtopic:

- This strategy lab topic examined boroughs and rural townships as distinct but interconnected parts of the Lehigh Valley's growth system.

What's Changed | Population

Change in Population Density 2018 – Today



- Boroughs function as smaller-scale population and service centers.
- Across datasets, boroughs show more diverse development patterns, including residential infill and a wider mix of commercial, institutional, and public uses.
- Industrial, commercial and residential development in boroughs areas tend to be smaller in scale compared to suburban growth, but still significant in shaping local economies and land use change.
- Boroughs continue to serve as local hubs for surrounding rural communities, providing access to services, schools and employment opportunities.

SOAR main ideas summary of this subtopic:

- Infrastructure strain and aging systems were key issues, particularly related to roads, bridges, stormwater (municipal separate storm sewer systems (MS4) and funding limitations, alongside concerns about maintaining services under continued growth pressures.
- Participants highlighted the region's strong community character, civic engagement, parks, recreation assets, and agricultural/rural blend as major strengths that define borough identity and quality of life.
- A central opportunity identified was improving transportation and mobility systems, including congestion management, truck routing, multimodal access, walkability, and better connections between boroughs and surrounding rural areas.
- There was strong emphasis on infrastructure investment and modernization, including road programming, bridge maintenance, fiber internet expansion, Americans with Disabilities Act (ADA) improvements and long-term capital planning.
- Participants discussed opportunities for main street revitalization and local economic development, including small business growth, mixed-use development, brownfield reuse and strategies to increase foot traffic in downtown areas.

- Regional cooperation and multi-municipal collaboration were consistently identified as critical opportunities for shared services, land use coordination, funding access and coordinated planning.
- Civic participation and community engagement, trust in local government and transparency emerged as important themes, with ideas such as open municipal communication, surveys and increased public involvement in planning processes.
- Participants emphasized the importance of preserving agricultural land and rural character while managing development pressure, including tools like farmland preservation funding, referenda and land banking strategies.
- There was interest in promoting safer, more connected, and more walkable borough environments, including trails, pedestrian infrastructure, traffic calming and separation of heavy truck traffic from residential areas.
- Looking forward, participants envisioned well-maintained infrastructure, stronger civic identity, improved mobility, increased economic vitality, and coordinated regional growth that preserves rural and borough character.
- Success was described through outcomes such as better road and bridge conditions, reduced congestion and truck impacts, increased public trust, stronger downtowns, improved ADA accessibility and sustainable funding for long-term infrastructure needs.

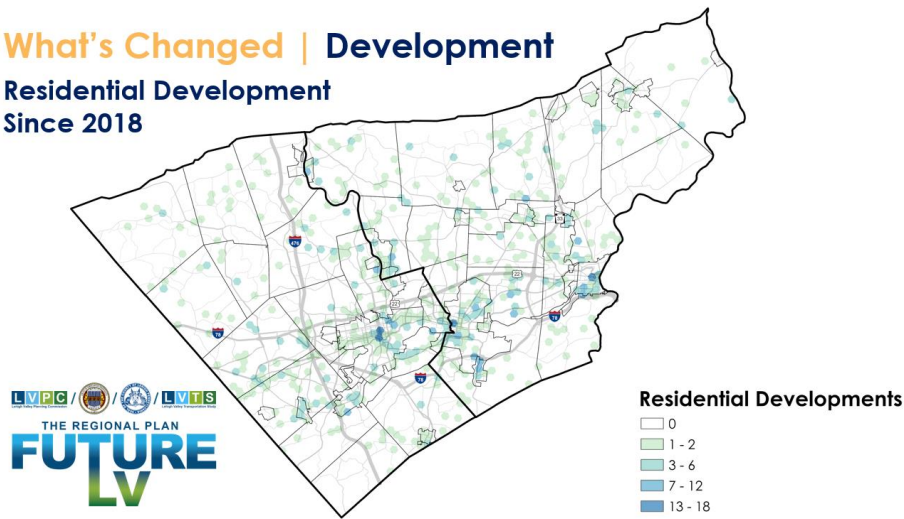
SOAR 2: Rural

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Rural areas remain more land-intensive and development-sensitive.
- Rural townships experience more limited but steady growth, with development concentrated in specific areas, often influenced by infrastructure access and available land.
- Industrial, commercial and residential development in rural areas (similar to borough areas) tends to be smaller in scale compared to suburban growth, but still significant in shaping local economies and land use change.

What's Changed | Development

Residential Development Since 2018



- Rural areas remain strongly defined by agriculture and open space, but are increasingly affected by gradual residential expansion and infrastructure extension.
- Infrastructure expansion (water, sewer, and roads) plays a key role in where growth occurs, even in lower-density and rural contexts.

SOAR main ideas summary of this subtopic:

- Farmland preservation and undeveloped land were seen as core rural strengths, supporting agriculture, water recharge and long-term environmental sustainability.
- Participants highlighted the region's strong farming base and planning frameworks as assets, with opportunities to support rural stability and guide land use decisions.
- There was strong interest in expanding small-scale agriculture and agribusiness, including new farmers, value-added production (e.g., breweries, wineries) and diversified rural economies.
- Infrastructure limitations, especially roadway maintenance, stormwater systems, and funding gaps, were identified as key rural challenges.
- Rural areas were viewed as having strong potential for tourism and recreation development, leveraging trails, scenic landscapes, and regional destinations to strengthen local economies.
- Participants emphasized opportunities for revitalization and investment, including grants, tax incentives and redevelopment of blighted or underused properties.
- Improving connectivity and access to jobs and services was a recurring theme, particularly through better transit links and regional mobility options.
- There was interest in creating more community gathering spaces and walkable/bikeable environments to strengthen social cohesion and rural livability.
- Looking ahead, participants envisioned stronger rural economies supported by agriculture, tourism and small business growth, alongside improved infrastructure and reduced blight.

3

STRATEGY LAB

Municipal Development and Land Use: Cities and Suburbs

Strategy Lab 3: Municipal Development and Land Use: Cities and Suburbs

How municipal development and land use shape the challenges and opportunities facing our cities and suburban communities. It was held May 12 at 9 am, with 9 participants.

Roundtable Discussions: 1) Cities, 2) Suburbs. Roundtable discussions with Local Governments from Cities and Suburbs

Summary of Overall Themes

Across all discussion areas, several common themes emerged:

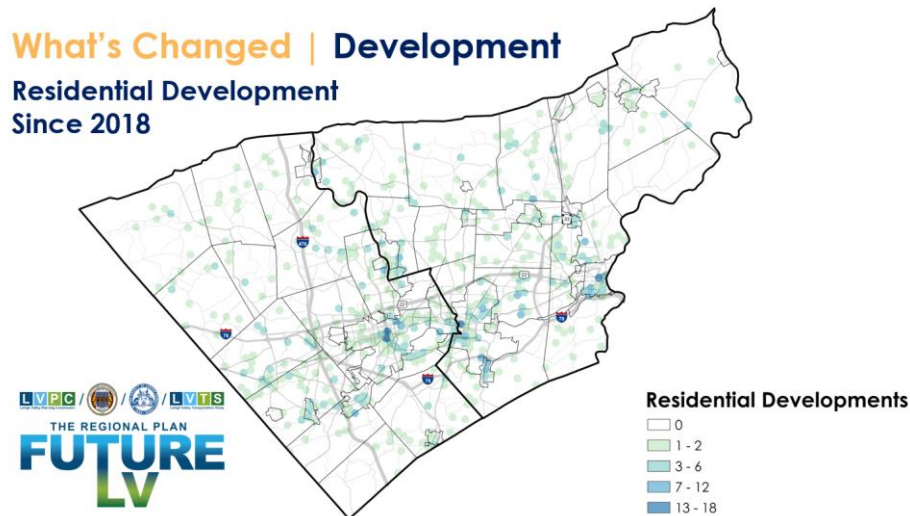
- Both cities and suburbs benefit from established neighborhoods, schools, parks, employment centers and mixed-land uses that provide a solid base for future growth.
- A shared need to improve sidewalks, trails, transit, and complete street networks to better connect people to jobs, housing and services.
- Mismatches between where people live and work, along with ongoing affordability challenges and the need for more diverse housing options.
- Infrastructure constraints (roads, utilities, transit, and pedestrian systems) and funding limitations were common concerns requiring coordinated long-term investment.
- Priorities include infill, redevelopment of existing sites and more efficient use of land rather than outward expansion.
- Need for coordination and integrated planning between municipalities, agencies, and infrastructure planning is needed to support cohesive regional development.
- Shared vision for more connected, livable communities where housing, jobs, and infrastructure are better integrated.

SOAR 1: Cities

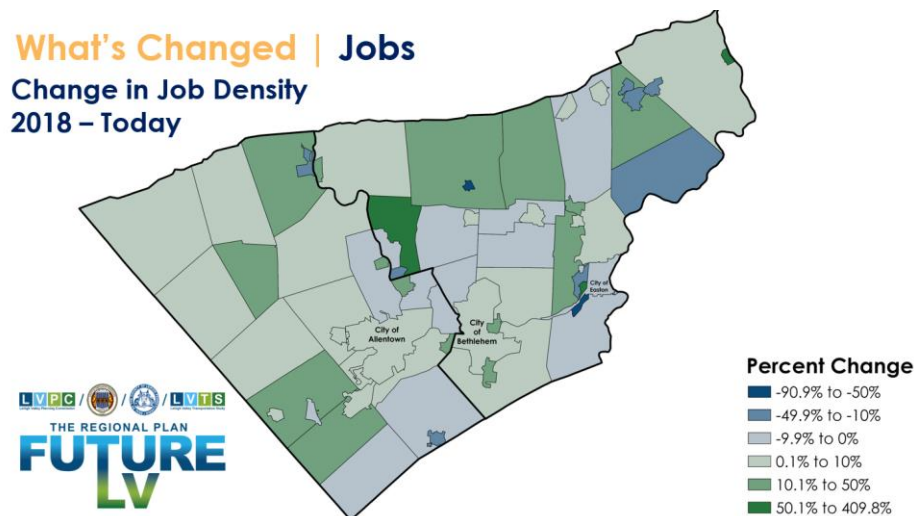
LVPC PowerPoint presentation main ideas summary of this subtopic:

- Cities such as Allentown, Bethlehem, and Easton remain major population and employment centers, but their growth has been more limited compared to surrounding suburban areas.
- City growth is influenced by limited available land, redevelopment opportunities, and the need to accommodate growth through infill and reinvestment.
- Cities have continued to experience significant change, even though population growth has been slower than in suburban areas.
- Cities provide a greater diversity of housing types, supporting a wider range of household needs and traditionally offering more affordable housing options.

- Denser residential development is more common in cities, boroughs, and some suburban centers due to existing infrastructure and development patterns.



- Job growth has been mixed in cities, with places such as Allentown and Easton experiencing job declines, while other urban areas continue to attract employment.



- Cities remain important regional activity centers, with transit improvements focused on connecting people to major job centers, services, and destinations.
- Future growth in cities will depend on redevelopment, infill, and maximizing existing infrastructure capacity.

SOAR main ideas summary of this subtopic:

- Across the Cities SOAR discussion, participants identified a core set of strengths centered on the existing urban fabric, including mixed-use neighborhoods, historic character, parks and recreation assets, transit access, and established economic and institutional anchors such as higher education, health networks, and key employment centers.

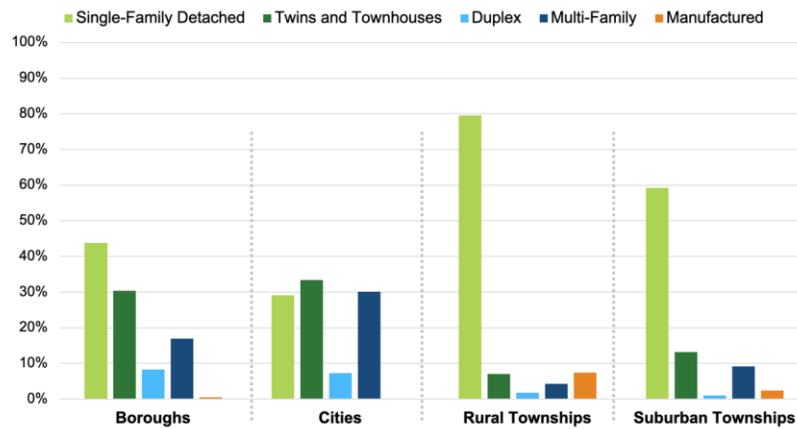
- Cities like Allentown were highlighted as already demonstrating strong performance in economic activity, industrial presence, redevelopment capacity and an engaged community with a progressive civic culture that supports ongoing revitalization.
- Key opportunities and aspirations focused on strengthening connectivity and livability through infill development, expanded housing diversity and affordability, improved transit and active transportation networks, and the completion of sidewalk and trail gaps to better link housing, jobs and services.
- Additional priorities included aligning housing with employment, particularly blue-collar and trade-based jobs, reducing commute burdens, and resolving competition for curb space through better multimodal design.
- Forward-looking ideas included preparing for future transportation technologies, expanding job access for non-degree pathways, enhancing sustainability through utilities such as sewer capacity and alternative energy infrastructure, and leveraging redevelopment to retain and attract talent.
- The resulting vision points toward more complete, connected, and equitable cities where infrastructure, land use, and transportation systems are better integrated to support daily life, economic opportunity, and long-term regional resilience.

SOAR 2: Suburbs

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Suburban communities have been the primary locations of recent growth in the Lehigh Valley, driven by available land, housing development, and highway access.
- Communities such as the Townships of Upper Macungie Township, Lower Macungie, Bethlehem, Forks, Bushkill, Weisenberg, and Allen have experienced significant expansion.
- Suburban areas are expected to capture the largest share of future population growth through 2050, creating a greater need for additional housing.
- Growth in suburban areas has increased demand for roads, water, sewer and other infrastructure expansion.
- Many suburban areas have seen strong job growth, particularly in industrial, warehouse, and other employment sectors along major transportation corridors.
- Suburban development has traditionally focused on single-family housing, creating a need to consider more diverse housing options for changing household needs.

Housing Diversity by Community Type



- Future suburban growth will require balancing development, infrastructure capacity, transportation needs, and preservation of farmland and natural resources.

SOAR main ideas summary of this subtopic:

- The Suburbs SOAR discussion highlighted a region with strong foundational assets, including quality schools, diverse housing options, recreational spaces, historic resources, and a mix of land uses that include residential, commercial, industrial, and agricultural areas.
- Participants noted that suburbs are generally well positioned for continued growth due to available land, engaged communities, and expanding multimodal connections, with many areas already supporting a strong balance of housing, open space and employment-related uses.
- At the same time, key issues centered on aging infrastructure, funding constraints, gaps in sidewalks and trails, a mismatch between housing growth and local job availability, ongoing affordability challenges and coordination issues with agencies such as PennDOT.
- The primary opportunities and aspirations focused on redeveloping existing sites, improving infrastructure capacity, expanding transit access, and better connecting recreation assets and regional trail systems.
- There was also a strong emphasis on achieving more equitable housing options, improving safety and connectivity through complete streets and multimodal corridors, preserving farmland and ensuring that future growth is supported by coordinated infrastructure investment.
- Overall, the vision points toward more connected, walkable and balanced suburban communities where housing, jobs, and services are better aligned with transportation and infrastructure systems.

4

STRATEGY LAB

Transportation

Strategy Lab 4: Transportation

How roads, bridges, transit, and multimodal systems must evolve to support the mobility needs of a growing Lehigh Valley. It was held May 13 at 9 am, with 28 participants.

Roundtable Discussions: 1) Transit, 2) Highway/Bridge, 3) Multimodal

Summary of Overall Themes

Across all discussion areas, several common themes emerged:

- A need to modernize and maintain aging transportation infrastructure was consistently highlighted, including roads, bridges, transit systems and pedestrian/bike facilities.
- Improving safety was a central priority, with emphasis on reducing crashes, redesigning high-risk corridors, and applying more proactive, data-driven approaches such as Vision Zero principles.
- Participants stressed the importance of a more balanced, multimodal transportation system that better integrates transit, walking, biking, freight and driving options.
- Expanding and improving transit service was a key focus, including increased frequency, broader coverage, better reliability, and stronger connections to jobs, education and regional destinations.
- Freight and logistics management emerged as a major regional issue, particularly balancing economic advantages of warehouse growth with local traffic impacts and community safety.
- Strong interest was expressed in better connectivity across the region, closing gaps between urban, suburban, and rural areas through continuous networks and coordinated planning.
- Transportation and land use were viewed as closely linked, with a shared need for more coordinated planning to support walkable development, transit access and efficient infrastructure investment.
- Equity and accessibility were recurring themes, emphasizing the need for transportation options that serve all residents, including non-drivers, people with disabilities and underserved communities.
- Overall, participants envisioned a safer, more connected, and more efficient regional transportation system that reduces congestion, expands mobility choices, and supports long-term economic and community growth.

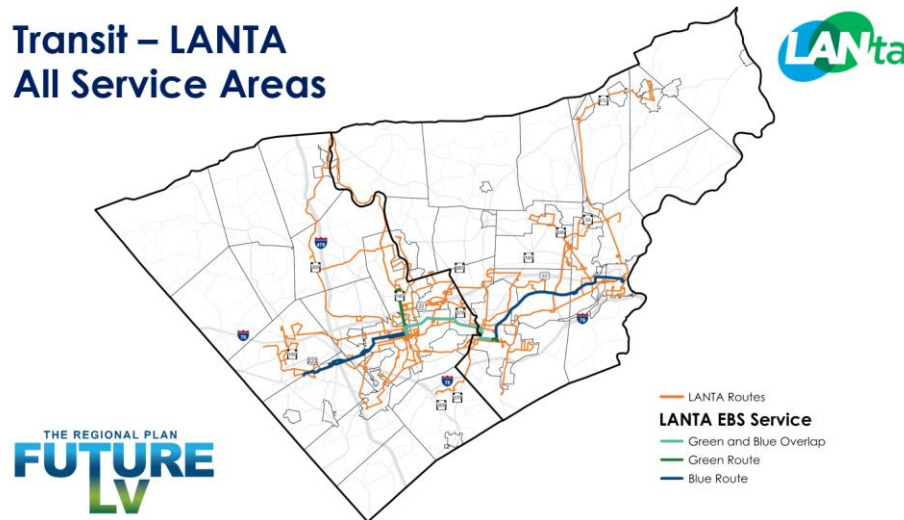
SOAR 1: Transit

LVPC PowerPoint presentation main ideas summary of this subtopic:

- The Lehigh Valley transit system is operated by LANTA with fixed routes, buses, and vans serving the region.

- Daily ridership is about 11,800, with low fares and free rides for seniors 65 and older.
- LANTA also offers flexible curb-to-curb service (LANtaFlex) and paratransit service (LANtaVan) for eligible riders.

Transit – LANTA All Service Areas



- Bus service is concentrated in the main urban/suburban corridor between Allentown and Easton.
- The Enhanced Bus Service (EBS) program improves speed, frequency, and comfort using upgraded bus corridors instead of rail.
- Transit routes have been updated over time to match shifting population and job growth patterns.
- The network has expanded from one main corridor to a more connected regional system.
- Long-term planning is also exploring the return of passenger rail service, but it is still in early study phases and far from implementation.

SOAR main ideas summary of this subtopic:

- The region's existing transit assets (EBS, LANTA, downtown transit centers, school transportation networks) were seen as strong foundations for mobility, supporting access across multiple user groups.
- Participants emphasized opportunities to improve service quality and usability, including real-time tracking, better bus stop infrastructure, accessibility upgrades, and improved rider information through apps and digital tools.
- A major theme was the need for expanded service coverage and frequency, particularly through increased routes, stronger connections between communities, and improved access to employment, education, healthcare and regional destinations.

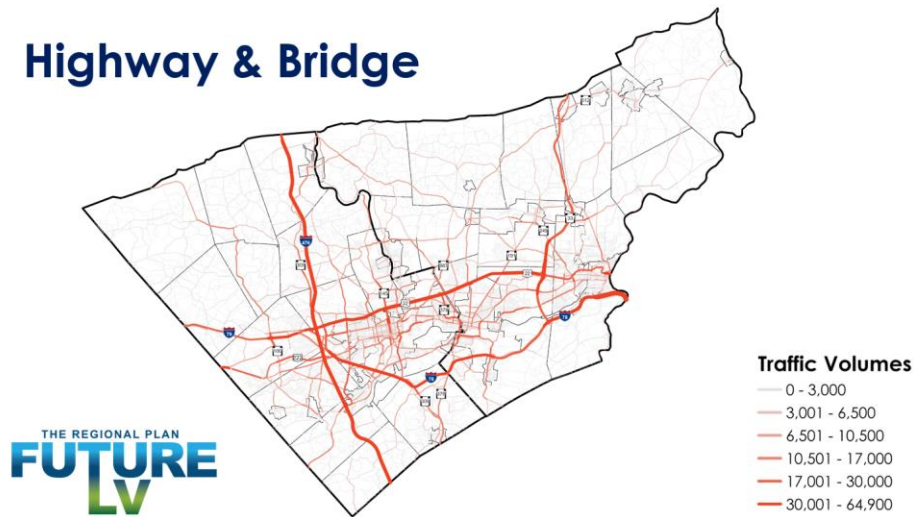
- First-mile/last-mile solutions and flexible transit options (such as microtransit, on-demand services and expanded van programs) were identified as key strategies to serve underserved and low-density areas.
- Participants highlighted opportunities to strengthen transit partnerships with employers, institutions, and event destinations, improving commuting options and increasing ridership through coordinated demand.
- Safety, accessibility and infrastructure at transit stops were recurring concerns, with emphasis on ADA compliance, pedestrian safety, and making stops more comfortable and secure for all riders.
- There was strong interest in developing multimodal transportation systems, including better integration of biking, walking, e-bikes, and improved curb/road space management in congested corridors.
- Participants discussed the potential for regional rail or enhanced intercity connections, alongside stronger transit links between boroughs, employment centers, and nearby metro areas.
- Congestion management and targeted service (e.g., event transit, shuttle services and corridor improvements) were identified as opportunities to reduce traffic while increasing transit use.
- Looking forward, participants envisioned a more connected, frequent, reliable and accessible transit system, supported by sustainable funding, transit-oriented development, and stronger regional integration.
- Success was described in terms of higher ridership, improved reliability and frequency, expanded service areas, safer and more accessible stops, reduced congestion, and stronger connections between people and key destinations.

SOAR 2: Highway/Bridge

LVPC PowerPoint presentation main ideas summary of this subtopic:

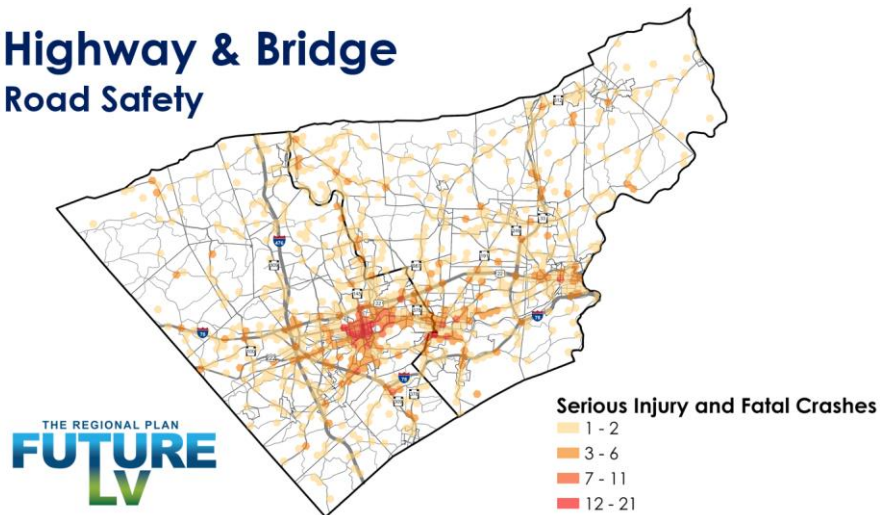
- Traffic in the Lehigh Valley is shaped by major employment centers, freight hubs, institutions, and retail areas.
- Higher traffic volumes are concentrated in cities, suburbs, expressways and key regional highways.

Highway & Bridge



- Commuting patterns were stable until 2020, when telecommuting surged due to COVID-19.
- Since then, commuting has partially stabilized, with hybrid work still common and transit/carpooling rebounding.
- Most crashes and serious injuries are concentrated in the Allentown area, especially near Route 22 and MacArthur Road.

Highway & Bridge Road Safety



- From 2018–2024, there were over 55,000 crashes, including 1,608 serious injuries and 334 fatalities.
- Road conditions vary: most pavement is fair or good, with a smaller share rated excellent or poor.
- Bridge conditions are mostly fair or good, with a smaller portion rated poor.

SOAR main ideas summary of this subtopic:

- The region's major highway network (I-78, I-476, Route 22 and 33) and freight corridors were identified as a key strength, supporting regional and interstate connectivity, commerce, and freight movement.

- Participants noted that while bridge conditions have improved in recent years, ongoing maintenance and preservation of both highways and local bridges remain critical priorities.
- A major theme was the need for safer and more efficient roadway design, including interchange redesigns, ramp improvements, road diets, complete streets and better management of high-traffic intersections.
- Freight and truck traffic management was a recurring issue, with opportunities to create designated truck routes, rest areas and better integration of warehouse and logistics development into transportation planning.
- Participants emphasized opportunities to improve multimodal infrastructure, including sidewalks, bike facilities, pedestrian crossings, and designing bridges and corridors that support all users rather than serving only vehicles.
- There was strong interest in congestion reduction strategies, including improved interchange design, traffic signal modernization, bus priority lanes, and better coordination between land use and transportation systems.
- Safety improvements and Vision Zero principles were highlighted, with focus on reducing crashes and protecting vulnerable road users through better design, data-driven safety analysis and infrastructure upgrades.
- Participants discussed the importance of coordinated planning between PennDOT, municipalities, and developers, especially for funding, maintenance, and integrating new development with mobility needs.
- Emerging opportunities included using new technologies, pavement innovations, and data-driven planning tools to improve maintenance efficiency and roadway performance.
- Looking ahead, participants envisioned a modernized, multimodal, and well-maintained transportation network that balances freight, commuter, and local needs while improving safety and reducing congestion.
- Success was described in terms of improved bridge and pavement conditions, reduced congestion, safer intersections, better freight management, increased multimodal access, and a more efficient regional roadway system.

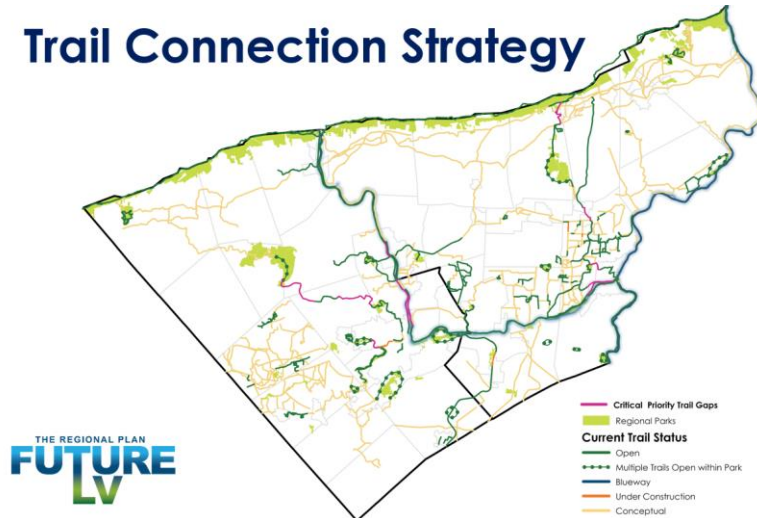
SOAR 3: Multimodal

LVPC PowerPoint presentation main ideas summary of this subtopic:

- The Lehigh Valley has multiple transportation modes beyond driving, including walking, biking, transit, and freight systems.
- Active transportation planning includes sidewalks, trails, and bike networks that support short local trips.
- Walking and rolling are common for recreation, errands, and some commuting, supported by over 2,000 miles of sidewalks.

- Bicycling is mostly for recreation and errands, with most trips under 2.5 miles, but limited on-road infrastructure reduces comfort for many riders.
- The region is working to close major gaps in its 300+ mile trail network to improve connectivity.

Trail Connection Strategy



- Industrial and warehouse growth has made the region a major logistics hub, increasing freight movement.
- Freight planning is coordinated regionally due to cross-county transportation flows.
- Air freight through Lehigh Valley International Airport has grown significantly, especially since Amazon Air began operations.

SOAR main ideas summary of this subtopic:

- The region's existing trail systems (such as the D&L Trail), sidewalk networks, and growing suburban acceptance of pedestrian infrastructure were identified as key strengths supporting multimodal travel.
- Participants emphasized opportunities to expand safe walking and biking networks, including complete streets, safe routes to school, ADA improvements, micromobility infrastructure, and closing gaps in sidewalks and trails.
- A major theme was the need to create a fully connected regional multimodal network, linking urban cores, suburbs and rural areas through continuous pedestrian and bicycle infrastructure.
- There was strong interest in better integrating land use and transportation planning, ensuring that mixed-use development, transit access and pedestrian connectivity are designed together from the beginning.
- Participants highlighted opportunities to strengthen freight and logistics integration, including managing truck impacts on local communities while leveraging regional assets like air cargo and freight hubs.

- Safety and design standards were frequently discussed, with emphasis on shifting away from car-centric design toward people-centered corridors that prioritize pedestrians, cyclists and transit users.
- Participants noted growing interest in changing travel culture, including increased acceptance of biking, walking, and transit, supported by employer practices, education and public awareness.
- There was interest in expanding micromobility options (e-bikes, scooters, bikeshare) and improving access through parking strategies such as “park once and ride” models.
- Connectivity gaps outside of downtowns were identified as a key issue, with opportunities to extend multimodal infrastructure into suburban and rural areas.
- Participants emphasized the importance of inclusive design and equity, ensuring transportation systems reflect the needs of all users, including women, people with disabilities and non-drivers.
- Looking ahead, participants envisioned a fully integrated multimodal system, where walking, biking, transit, and shared mobility are safe, accessible and viable for everyday trips across the entire region.
- Success was described in terms of increased non-vehicle travel, safer streets, a continuous regional bike/ped network, stronger transit integration and a cultural shift toward multimodal transportation as a normal choice.

5

STRATEGY LAB

Arts and Culture

Strategy Lab 5: Arts and Culture

How arts, culture, historic sites, parks and recreation shape our quality of life and give the Lehigh Valley its unique identity. It was held May 13 at 1 pm, with 38 participants.

Roundtable Discussions: 1) Arts + Culture 2) Tourism, 3) Parks and Recreation, 4) Historic Sites + Preservation

Summary of Overall Themes

Across all discussion areas, several common themes emerged:

- Arts, culture, recreation, and historic preservation are fundamental to the Lehigh Valley's identity, sense of place, and quality of life.
- Stronger regional connectivity, accessibility, and coordination are needed to ensure residents and visitors can fully participate in cultural, recreational, and heritage experiences.
- Arts, culture, tourism, parks and historic assets should be leveraged as integrated economic development tools that support tourism, workforce attraction, talent retention and local business growth.
- Public awareness, storytelling, marketing and wayfinding must be strengthened to improve visibility of regional assets and create a more unified regional identity.
- Investment in facilities, public spaces, preservation efforts, and supporting infrastructure will be critical to sustaining cultural and recreational resources for future generations.
- Education, youth engagement, and lifelong learning opportunities should be expanded to strengthen connections to the arts, local history, environmental stewardship and creative careers.
- Diversity, inclusion, and representation should remain central priorities to ensure cultural programming, preservation efforts, and public spaces reflect the region's evolving population.
- Regional collaboration among organizations, institutions, municipalities and community partners will be essential for maximizing resources, improving coordination and achieving shared goals.
- Historic preservation, environmental stewardship and community development should be balanced with growth and investment to maintain the character and authenticity that define the region.
- The region aspires to create a more connected, accessible and vibrant network of cultural, recreational, and historic assets that strengthens community well-being, supports economic prosperity and enhances the Lehigh Valley's distinct identity.

SOAR 1: Arts + Culture

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Arts and culture help define identity, pride, and sense of place in the Lehigh Valley.
- The region has 249 nonprofit arts and culture organizations generating major economic impact, jobs, tourism and tax revenue.



- Cultural activity is rooted in local history and industrial heritage, with strong connections to landmarks and festivals.
- Arts are part of everyday life through events, museums, public art, trails and community spaces.
- Population growth and increasing diversity are shaping how arts and cultural programming evolve.
- Cultural access depends on regional connectivity across cities, suburbs and rural areas.
- The Lehigh Valley offers a wide range of arts experiences including theater, visual arts, festivals, galleries, and hands-on creative spaces.

SOAR main ideas summary of this subtopic:

- The region's strong and diverse arts ecosystem (organizations, colleges, festivals, public art, and collaborative networks) was identified as a key strength supporting cultural vitality and community identity.
- Participants emphasized opportunities to strengthen arts as an economic driver, including workforce development, tourism promotion, and positioning arts and culture as part of regional economic strategy.
- A major theme was improving access to arts and culture, including better transportation connections, walkability, affordability, and ensuring residents across urban, suburban and rural areas can participate.

- There was strong interest in expanding youth and emerging artist development, including after-school programs, mentorship opportunities, internships and pathways for young creatives to grow professionally in the region.
- Participants highlighted opportunities to enhance arts infrastructure and spaces, including upgrades to facilities, creation of shared cultural hubs, maker spaces, rehearsal spaces and multi-use community centers.
- Public art, placemaking, and historic preservation were consistently viewed as important tools for strengthening community identity, activating public spaces, and improving wayfinding and sense of place.
- A recurring theme was the need to improve coordination, visibility and communication of arts programming, including centralized calendars, better marketing, and easier ways for the public to discover events.
- Participants emphasized the importance of diversity, inclusion and representation in the arts, including expanding opportunities for underrepresented artists and reflecting the region's evolving demographics.
- There was interest in strengthening the connection between arts, health and community well-being, including programming for all ages and integrating arts into public life, parks and healthcare-related initiatives.
- Funding and sustainability were identified as ongoing challenges, with opportunities for increased corporate support, regional collaboration, philanthropic investment, and stronger public-private partnerships.
- Looking ahead, participants envisioned a more connected, visible, and accessible arts and culture system, with stronger facilities, broader participation, and deeper integration into education, tourism, and economic development.
- Success was described in terms of increased participation, stronger arts education pipelines, expanded public art, improved facilities, greater funding stability, and recognition of arts and culture as a core regional economic and community asset.

SOAR 2: Tourism

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Tourism is a major economic driver in the Lehigh Valley, with 16.6 million visitors and \$1.4 billion in spending (2024).
- The region attracts visitors through a mix of attractions, including theme parks, museums, trails, rivers, and wineries.
- Arts, culture, and festivals (like Musikfest) are key tourism draws.

THE REGIONAL PLAN **FUTURE LV**

Tourism

16.6 Million Visitors Per Year

(Another very small list of examples)

**Dorney Park
& Wildwater Kingdom**

**MUSIC
FEST**



- Historic and industrial heritage sites play an important role in visitor experiences.
- Tourism showcases the region's history, culture, outdoor recreation, and entertainment in one destination.

SOAR main ideas summary of this subtopic:

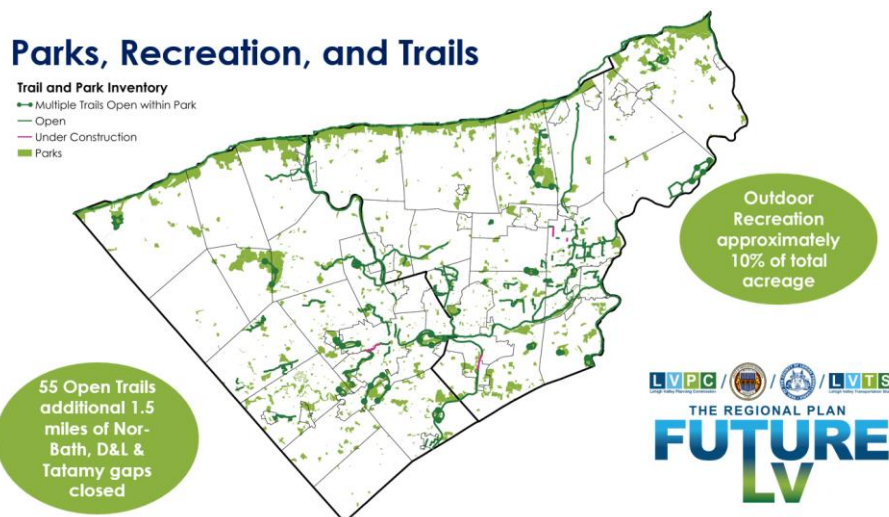
- The region's diverse attractions, major events, festivals, cultural assets, and proximity to major metros (New York City/Philadelphia) were identified as key strengths supporting a strong tourism base.
- Participants emphasized opportunities to better leverage transportation assets (including airports and transit connections) to improve access, increase visitation, and support both daytrip and overnight tourism.
- A major theme was improving marketing, coordination, and storytelling, including stronger promotion of regional destinations, better wayfinding, and more unified tourism messaging across organizations.
- There was strong interest in developing targeted tourism strategies for younger audiences, families and young professionals, including experiential tourism, events, and amenities that encourage repeat visitation and longer stays.
- Participants highlighted opportunities to expand event-based and experiential tourism, such as conferences, expos, unique attractions, and immersive recreational or cultural experiences.
- Improving visitor navigation and information systems (e.g., kiosks, digital tools, centralized event calendars) was seen as key to helping visitors better access destinations and reduce fragmentation.
- A recurring theme was the need to better balance tourism growth with local quality of life, including managing congestion, ensuring community benefit, and avoiding over-commercialization.

- Participants emphasized the importance of strengthening regional collaboration among tourism organizations, reducing competition for funding, and improving shared planning and resource alignment.
- There was interest in using tourism as a tool for economic development and talent attraction, including retaining graduates, supporting workforce pipelines, and connecting visitors to local industries and culture.
- Agritourism, heritage tourism, and trail-based tourism were highlighted as opportunities to connect natural, agricultural, and historical assets into a cohesive regional experience.
- Looking ahead, participants envisioned a more integrated and accessible regional tourism system, supported by stronger branding, improved transportation access, and coordinated destination development.
- Success was described in terms of increased visitation, stronger local economic impact, better visitor distribution across the region, higher overnight stays, and more coordinated and sustainable tourism growth.

SOAR 3: Parks and Recreation

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Parks, trails and open space cover about 40,000 acres (10% of the Lehigh Valley).
- The region has 450+ miles of trails, including major interconnected networks like the LINK trail network.
- Counties and municipalities manage thousands of acres of parks, trails, and recreational facilities.
- Since 2018, some progress has been made in closing key trail gaps, with more work still ongoing.
- Parks and trails are viewed as a connected regional network, not just individual sites.



- Outdoor recreation supports quality of life, health, tourism and economic development.
- The outdoor recreation economy is a major sector, generating hundreds of millions in spending and supporting thousands of jobs.

SOAR main ideas summary of this subtopic:

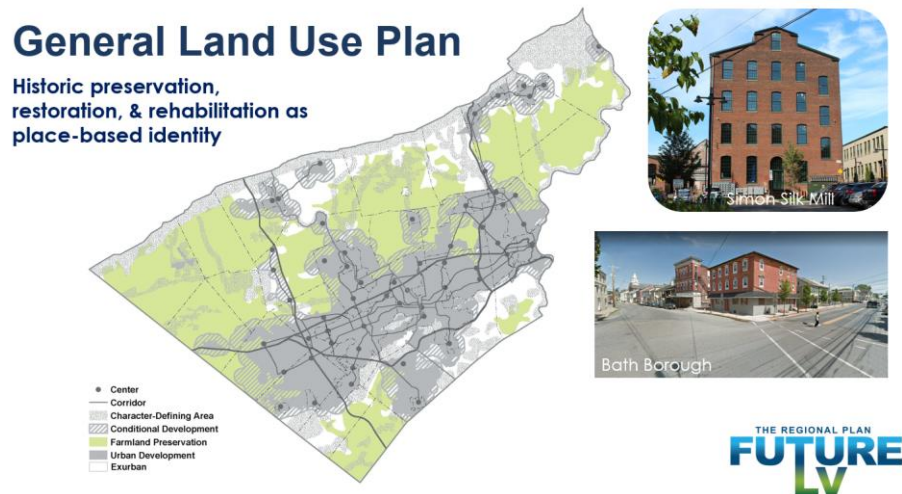
- The region's extensive park systems, trails, greenways and natural assets (including the Lehigh River and connected open spaces) were identified as key strengths supporting recreation, health, and quality of life.
- Participants emphasized the need for improved maintenance, signage, safety, and accessibility upgrades across parks and trails to ensure these assets are usable and welcoming for all residents.
- A major theme was expanding and connecting regional trail networks, including closing gaps, improving walkability, and creating continuous green corridors that link communities, parks and natural areas.
- There was strong interest in enhancing recreation along the Lehigh River and other natural assets, including expanded access points, environmental education, and integration of arts and cultural programming in outdoor spaces.
- Participants highlighted opportunities to strengthen nature-based recreation and environmental stewardship, including wildlife corridors, habitat protection, citizen science and ecosystem education initiatives.
- Equity and accessibility were recurring themes, with emphasis on ADA improvements, better transportation to parks, and ensuring that all residents can access green space, especially children and urban populations.
- Participants emphasized the importance of integrating arts, culture, health and recreation, using parks as venues for public art, performances, community gatherings and wellness-focused programming.
- There was strong interest in expanding active recreation opportunities, including biking, walking, fishing, hunting, fitness activities, and outdoor education programs.
- A recurring theme was the need to improve public awareness and engagement, including better programming, coordinated promotion, and encouraging more consistent use of parks and trails.
- Participants noted opportunities for environmental innovation and design, such as animal crossings, habitat-sensitive development, emergency trail features and more sustainable landscaping practices.
- Looking ahead, participants envisioned a fully connected regional park and trail system that supports recreation, transportation, environmental protection and community well-being.

- Success was described in terms of increased access and usage of parks and trails, improved safety and maintenance, stronger ecological connectivity, greater public engagement, and parks functioning as integrated hubs for health, recreation, and community life.

SOAR 4: Historic Sites + Preservation

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Historic preservation strengthens existing communities and regional centers.



- Historic development patterns support walkability, mixed-use design, and connectivity.
- Preservation includes both buildings and culturally significant landscapes.
- Historic sites contribute to tourism and local economic activity.
- Maintaining historic identity helps shape regional character and quality of life.
- Notable sites include Moravian Church Settlements, the Locktender's House, and the George Taylor House.

SOAR main ideas summary of this subtopic:

- The region's rich industrial heritage, historic corridors, World Heritage Sites, and architectural craftsmanship were identified as key strengths that shape regional identity and sense of place.
- Participants emphasized opportunities to use historic preservation as an educational tool, especially through K–12 learning, public awareness, and connecting history to science, art and local craftsmanship.
- A major theme was strengthening community understanding and appreciation of historic assets, including better storytelling, interpretation, and communication of the value of preservation.

- There was strong interest in expanding and refining historic designation efforts, including surveys, documentation of sites, and clearer criteria for what should be preserved or restored.
- Participants highlighted opportunities to use historic preservation as an economic and tourism driver, including leveraging World Heritage designation, museum and historic corridors as regional attractions.
- A recurring theme was the importance of balancing preservation with development, encouraging rehabilitation and adaptive reuse rather than demolition or incompatible new construction.
- Participants emphasized the need for stronger protections, policies and financial tools to support preservation, including regulations, incentives, and developer guidelines.
- There was interest in integrating indigenous history and underrepresented narratives into preservation efforts to ensure a more complete and inclusive historical record.
- Adaptive reuse and restoration of historic structures were seen as key strategies, including converting historic buildings for housing, community use, or cultural purposes while maintaining character.
- Participants noted opportunities to strengthen craftsmanship and construction quality awareness, connecting historic building techniques to modern design and education.
- Looking ahead, participants envisioned a well-documented, protected and widely understood historic landscape, where preservation is integrated into planning, development and education.
- Success was described in terms of more preserved sites, stronger public awareness, increased tourism, better integration of history into education, and development that respects and enhances historic character.

6

STRATEGY LAB

Environment

Strategy Lab 6: Environment

How the region's strength and vitality depend on protecting and managing its environment for long-term sustainability and quality of life, and how this becomes more complex as the region grows. It was held May 18 at 3 pm, with 15 participants.

Roundtable Discussions: 1) Climate Action & Resiliency, 2) Natural Resources, 3) Parks and Trails, 4) Agricultural Lands/ Preserved Farmland

Summary of Overall Themes

Across all discussion areas, several common themes emerged:

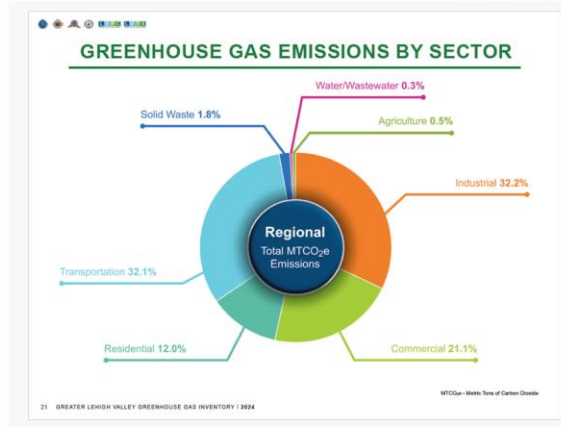
- Environmental, recreational and agricultural assets were viewed as interconnected systems, emphasizing the need for coordinated, cross-municipal planning.
- Whether discussing forests, waterways, farmland or open space, there was strong agreement on the importance of preserving finite land resources while managing ongoing development pressure.
- Physical and ecological connectivity, whether through wildlife corridors, trail networks, habitat linkages or regional collaboration, was a shared priority.
- A central concern was how to accommodate regional growth while maintaining environmental quality, agricultural viability, and recreational access.
- Moving from reactive approaches to proactive planning was emphasized, supported by stronger regional coordination, shared standards, and consistent implementation across municipalities.
- Environmental and open space resources were recognized for their role in public health, tourism, recreation, and long-term economic competitiveness.

SOAR 1: Climate Action and Resiliency

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Climate change is already affecting the Lehigh Valley through stronger storms, flooding, droughts, wildfires, smoke events and rising temperatures.
- Average temperatures have increased over the past 75 years, especially during winter months.
- The region has developed climate and resiliency plans to understand emissions and prepare for future impacts.
- Greenhouse gas emissions are tracked across sectors such as transportation, industry, energy, agriculture, waste and water systems.

Climate Action & Resiliency



ESTIMATED TOTAL GREENHOUSE GAS EMISSIONS
Lehigh & Northampton Counties, PA
9,803,367
MTCO₂e

Carbon County, PA
1,318,252
MTCO₂e

Warren County, NJ
1,599,755
MTCO₂e

Greater Lehigh Valley MSA
12,721,374
MTCO₂e



- Transportation and industry are the region's largest sources of emissions.
- The regional climate plan outlines strategies to significantly reduce emissions while improving resilience.
- Key actions include expanding clean transportation, increasing renewable energy use and improving energy efficiency.
- Achieving climate and resiliency goals will require long-term regional collaboration and coordinated implementation.

Pathway To a Resilient Greater Lehigh Valley Carbon, Lehigh and Northampton Counties, PA with Warren County, NJ

This plan is a blueprint to offset the impacts of our growth and reduce emissions by:

2030
1.4 Million
MTCO₂e

2050
5 Million
MTCO₂e

*metric tons of carbon dioxide equivalent



SOAR main ideas summary of this subtopic:

- Participants identified climate risks including heat, flooding, biodiversity loss and emissions from transportation, and development as key regional challenges requiring coordinated action.
- The region's strong growth, investment activity, natural landscapes and existing planning capacity were seen as strengths that can support climate resilience and long-term sustainability.

- A major theme was the need to shift from reactive to proactive planning, integrating climate considerations into land use, transportation, infrastructure and economic development decisions.
- Participants emphasized opportunities to advance net-zero and low-carbon development strategies, including stronger building standards, renewable energy adoption, and sustainable construction practices.
- There was strong interest in improving transportation-related emissions, including reducing car dependency, expanding transit, and encouraging multimodal travel to lower overall carbon output.
- Participants highlighted opportunities to protect and restore natural systems and biodiversity, including wildlife corridors, invasive species management, habitat restoration, and expanded green infrastructure.
- A recurring theme was strengthening regional coordination and governance, including potential Council of Governments (COG) style collaboration and shared climate planning across municipalities.
- Participants emphasized the importance of climate-resilient infrastructure, including heat mitigation strategies (tree canopy, reflective materials), stormwater management and utility modernization (including placing utility lines underground where feasible).
- There was interest in using policy and regulation to drive climate action, including development ordinances, emissions standards, and integrating climate metrics into transportation and capital planning.
- Participants highlighted the role of education, workforce training, and public engagement in supporting behavior change and ensuring climate strategies are widely understood and adopted.
- Looking ahead, participants envisioned a net-zero, climate-resilient region with reduced emissions, improved air quality, stronger ecosystems, and more coordinated regional climate governance.
- Success was described in terms of lower greenhouse gas emissions, expanded green space and tree canopy, improved biodiversity, reduced urban heat effects, stronger climate policy adoption and more sustainable development patterns.

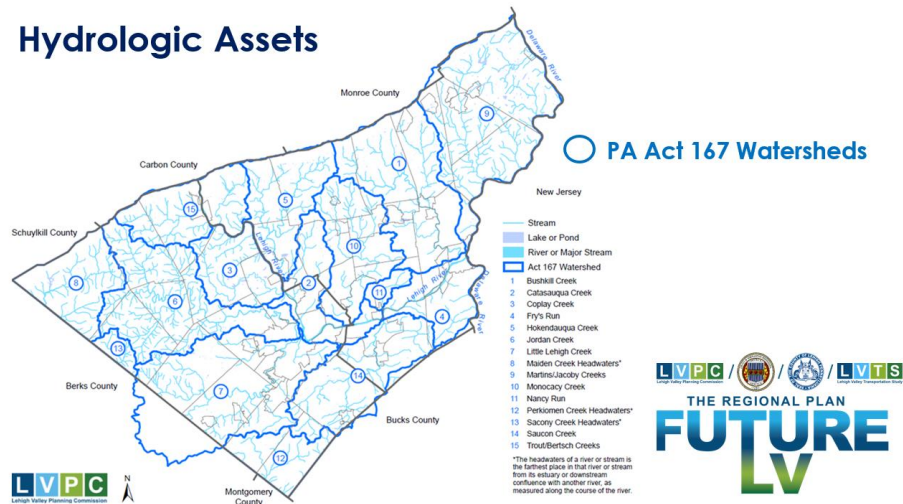
SOAR 2: Natural Resources

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Natural resources are a key part of the Lehigh Valley's identity, economy, recreation and quality of life.
- Planning focuses on protecting valuable natural assets while guiding future growth.
- Woodlands cover about 28% of the region and provide environmental, recreational, and economic benefits.

- Rivers, streams, wetlands, floodplains, and riparian buffers help manage flooding, protect water quality, and support ecosystems.
- Water resources are important for both environmental health and major industries in the region.
- Watershed planning and stormwater management help reduce flooding and support resilient development.

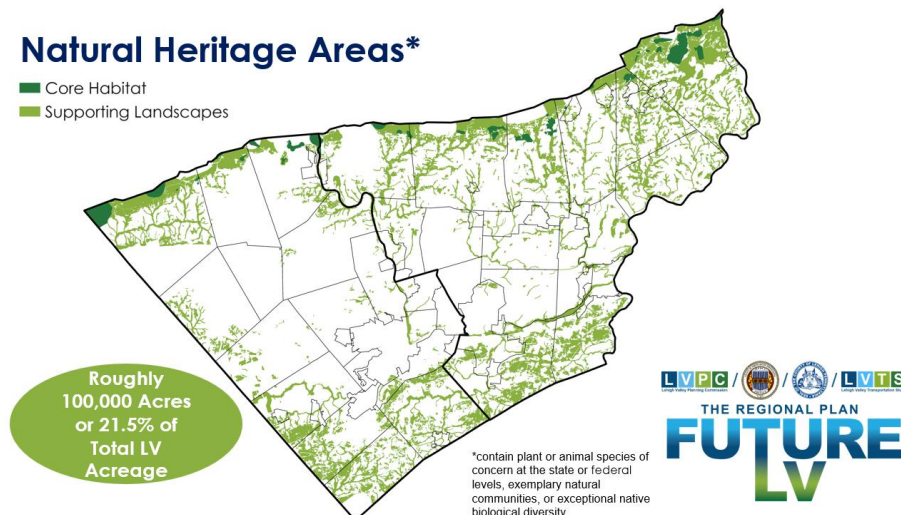
Hydrologic Assets



- Natural Heritage Areas protect rare species, important habitats, and high-quality ecosystems.

Natural Heritage Areas*

Core Habitat
Supporting Landscapes



- In *FutureLV*, conservation of these sensitive areas is a key factor in guiding land use and development decisions.

SOAR main ideas summary of this subtopic:

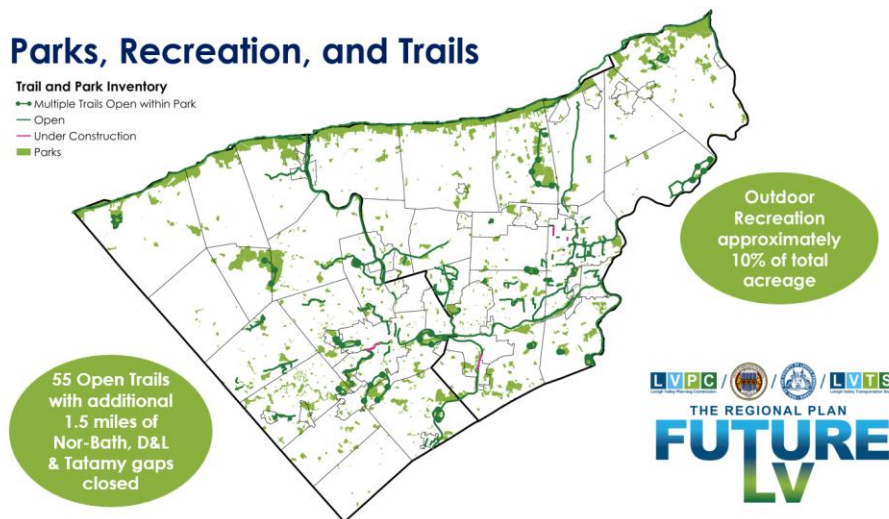
- Participants identified the region's high-quality forests, waterways, wetlands and diverse ecosystems as key natural assets supporting environmental health and regional identity.

- A major theme was the need to strengthen protection and management of natural resources, including improved ordinances, enforcement, and model regulations to safeguard forests, water quality, and habitats.
- Participants emphasized opportunities to address fragmented ecosystems, including multi-municipal coordination to reconnect habitats and improve ecological continuity across jurisdictions.
- There was strong interest in expanding wetland restoration and creation, recognizing their role in carbon absorption, stormwater management and urban ecological benefits.
- Participants highlighted concerns around water quality degradation, including increasing salinity from road salt use, stormwater runoff and groundwater impacts, with opportunities for improved best practices and regional coordination.
- A recurring theme was the need to manage and reduce invasive species, supported by volunteer networks, long-term regional strategies and coordinated removal efforts.
- Participants emphasized opportunities to protect and expand tree canopy and forested areas, including reforestation, riparian buffer expansion and limits on deforestation from development.
- There was interest in improving stormwater and land development practices, including requiring mitigation measures, increasing permeability, and integrating natural systems into infrastructure design.
- Participants noted the importance of education and stewardship programs, leveraging conservation districts, watershed groups, Penn State Extension and Environmental Action Committees (EACs) to support community engagement.
- A recurring theme was strengthening regional cooperation and long-term ecological planning, particularly for cross-municipal habitat protection and watershed management.
- Looking ahead, participants envisioned a more connected, resilient and well-managed natural environment, with expanded wetlands, healthier waterways and restored ecosystems.
- Success was described in terms of increased tree canopy, improved water quality, reduced invasive species spread, restored habitats, stronger ecological connectivity, and more sustainable land and water management practices.

SOAR 3: Parks and Trails

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Parks and trails cover about 40,000 acres, or roughly 10% of the Lehigh Valley.



- The region has 450+ miles of trails, including a growing interconnected network.
- County and public park systems manage thousands of acres of open space and recreational facilities.
- Some progress has been made in closing key trail gaps since 2018.
- Parks and trails function as a connected regional system, not just individual sites.
- Outdoor recreation supports health, quality of life, tourism, and economic activity.
- The outdoor recreation economy generates hundreds of millions of dollars, supports thousands of jobs, and is a major part of regional tourism.

SOAR main ideas summary of this subtopic:

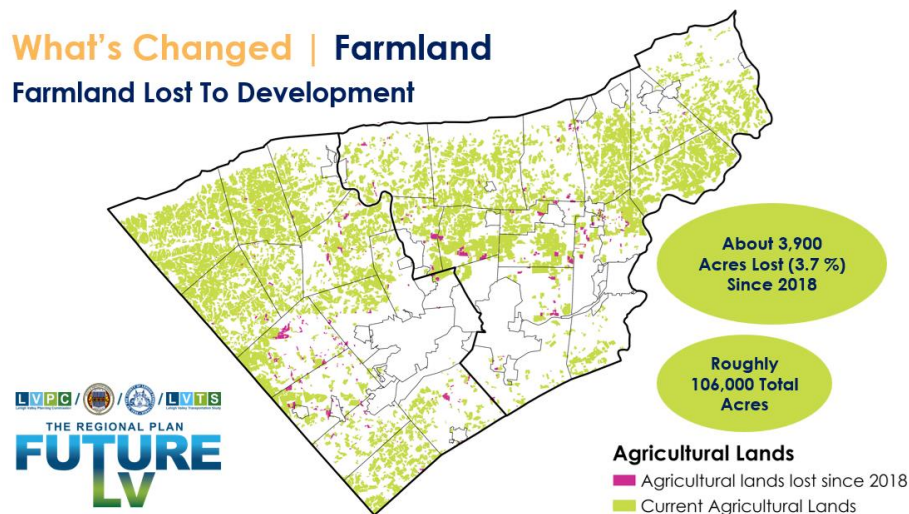
- Participants highlighted the region's strong parks, trails, and conservation networks as key assets for recreation, environmental education, and quality of life.
- A central theme was expanding and connecting parks and trails into a continuous regional greenway system, improving access, usability, and ecological connectivity.
- There was strong interest in using trails and parks for both recreation and transportation, including commuting and improved links between destinations.
- Participants emphasized integrating environmental education, signage, and points of interest to strengthen user experience and awareness of natural and cultural assets.
- A recurring theme was enhancing green infrastructure and ecological function, with parks and trails supporting stormwater management, habitat connectivity and environmental resilience.
- Participants noted opportunities to improve safety, maintenance and accessibility, ensuring parks and trails are usable year-round and for all users.
- Community engagement and volunteer support were seen as essential, including schools, friend groups and broader public involvement to sustain park systems.

- Participants highlighted opportunities to reuse rail corridors, and underutilized land to close trail gaps and expand the network.
- Looking ahead, participants envisioned a fully connected, safe, and accessible regional parks and trails system that supports recreation, transportation, health and environmental goals.

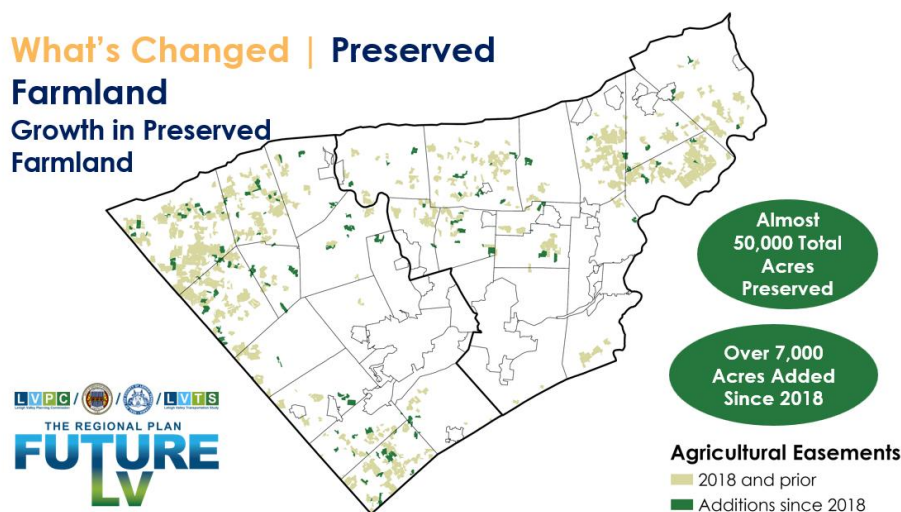
SOAR 4: Agricultural Lands/ Preserved Farmland

LVPC PowerPoint presentation main ideas summary of this subtopic:

- The Lehigh Valley has a strong agricultural base supported by productive soils and a moderate climate.
- Agriculture provides environmental benefits, local food production, economic activity and cultural value.
- Farmland is under ongoing pressure from development, leading to steady but uneven land loss since 2018.



- Farmland loss is closely linked to areas of infrastructure expansion and development growth.
- At the same time, farmland preservation programs are actively protecting agricultural land across the region.
- Nearly half of farmland is now preserved and preservation has recently outpaced farmland loss.



- Agriculture remains a major industry with over 800 farms and significant annual market value.
- The key planning challenge is balancing growth with protection of long-term agricultural land resources.

SOAR main ideas summary of this subtopic:

- Participants identified preserved farmland and strong agricultural networks as key regional strengths supporting long-term farming viability.
- A major theme was improving the economic sustainability of agriculture, including diversified farm models, better market access and stronger farm profitability.
- There was strong interest in advancing sustainable and innovative farming practices, such as agrovoltatics, silvopasture and circular agriculture systems.
- Participants emphasized expanding local food systems and access to fresh produce, particularly through community gardens, school gardens and farm-to-table initiatives.
- Improving agricultural education and engagement was seen as important, including farmer training and increased public participation in food production.
- A recurring theme was strengthening local distribution systems and zoning policies to support farmland preservation and keep more food production within the region.
- Participants highlighted opportunities for urban agriculture and community-based growing initiatives, including tools and programs that connect residents to local food production.
- Looking ahead, participants envisioned a more resilient and economically viable agricultural system, with stronger local food access, sustainable practices, and better integration into regional planning.

7

STRATEGY LAB

Community Infrastructure

Strategy Lab 7: Community Infrastructure

How this growing region must expand and modernize the capacity and resilience of core infrastructure systems—including municipal assets, water, sewer, stormwater, solid waste, gas, electric and communications -- to support future development. It was held May 19 at 3 pm, with 12 participants.

Roundtable Discussions: 1) Sewer and Water and Stormwater, 2) Solid Waste, 3) Gas and Electricity and Broadband.

Summary of Overall Themes

Across all discussion areas, several common themes emerged:

- Aging infrastructure across water, sewer, stormwater, energy, broadband, and waste systems is a major challenge, requiring sustained investment and proactive maintenance.
- Aligning land use and infrastructure capacity is essential to support growth while maintaining reliable, efficient service delivery.
- Regional coordination and system integration were consistently identified as key opportunities to improve efficiency, reduce duplication, and manage costs.
- Data-driven planning and asset management (including GIS and system monitoring) are increasingly important for improving reliability and guiding investment decisions.
- Affordability and funding constraints remain central concerns, underscoring the need for sustainable financing strategies that balance upgrades with rate stability.
- Stormwater management and environmental resilience are priorities, with interest in watershed-based planning and nature-based solutions to reduce flooding and improve water quality.
- Waste reduction and circular economy approaches, including recycling, composting, and public education, are seen as important for long-term sustainability.
- Energy and broadband are increasingly viewed as essential infrastructure tied to equity, economic development, and quality of life, particularly in underserved areas.
- Improved coordination across utilities, transportation, and development projects is needed to reduce conflicts and improve efficiency.
- Overall, participants envision a more coordinated, resilient, and future-ready infrastructure system that supports growth, expands access, and strengthens long-term sustainability.

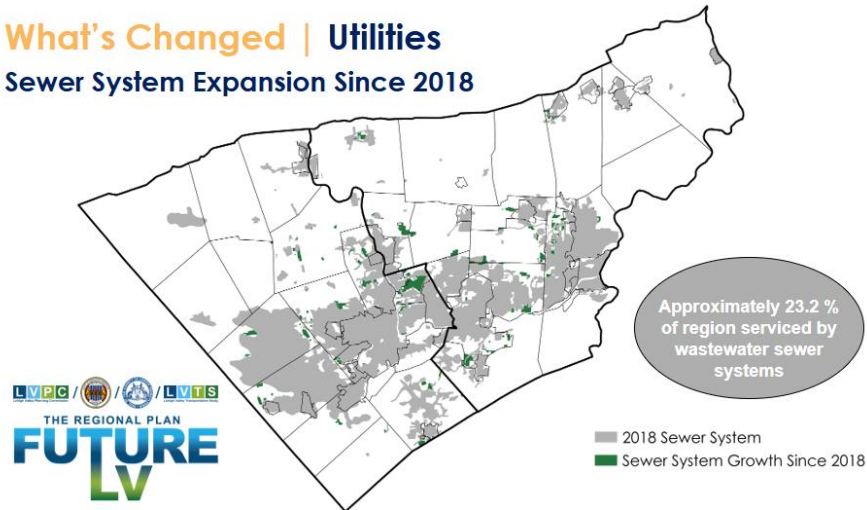
SOAR 1: Sewer and Water and Stormwater

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Municipal assets include public infrastructure like buildings, roads, parks and utilities that support daily community life.
- Many municipal assets are aging, making maintenance and replacement a major planning and financial challenge.
- Sewer and water systems strongly shape where development occurs and continue to expand alongside growth areas.

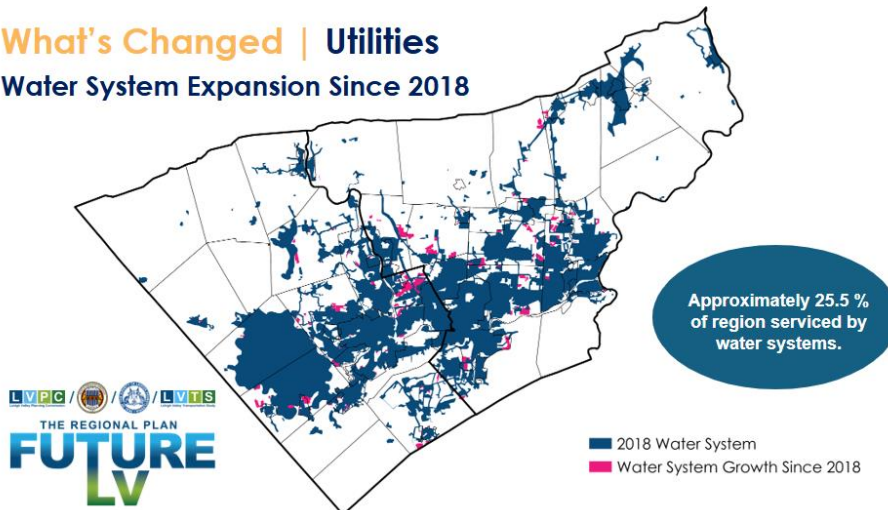
What's Changed | Utilities

Sewer System Expansion Since 2018



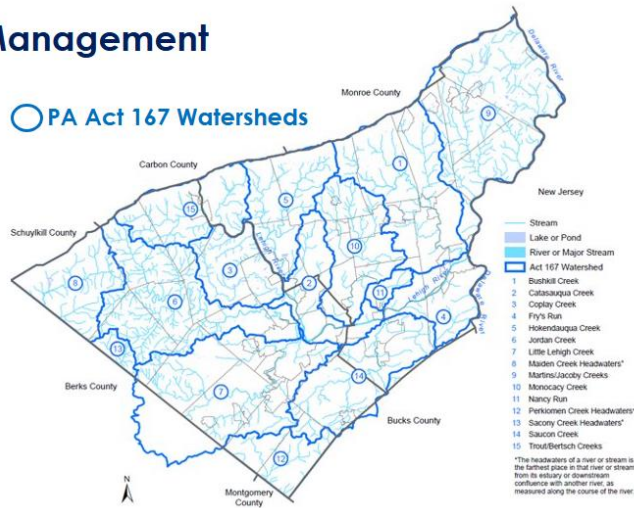
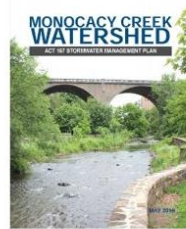
What's Changed | Utilities

Water System Expansion Since 2018



- Stormwater is managed separately and directly affects flooding, water quality, and environmental health.

Stormwater Management



- Green infrastructure and watershed planning are being used to better manage runoff and reduce impacts.
- Infrastructure expansion both enables and responds to development patterns across the region.
- Strong coordination between land use planning and utility systems is needed to guide sustainable growth.

SOAR main ideas summary of this subtopic:

- Participants identified aging infrastructure, maintenance needs, and system inefficiencies (including inflow and infiltration (I&I) losses) as key challenges across sewer, water, and stormwater systems.
- The region's established utility authorities, strong industrial/commercial rate base, and existing infrastructure systems were seen as key strengths supporting ongoing service delivery.
- A major theme was improving asset management and system planning, including better use of GIS mapping, data collection and proactive maintenance strategies.
- Participants emphasized opportunities for regional coordination and system consolidation, with regionalization seen as a way to improve efficiency, reduce costs and stabilize rates.
- There was strong interest in improving stormwater management through watershed-based planning and nature-based solutions, while integrating future development more strategically into system capacity.
- A recurring theme was the need to address affordability and funding pressures, particularly as infrastructure ages and demand grows with population and economic expansion.
- Participants highlighted opportunities to better align growth, development, and infrastructure investment, ensuring new development contributes to system upgrades and long-term resilience.

- Looking ahead, participants envisioned a more coordinated, data-driven and resilient utility system, supported by regional collaboration, improved planning and sustainable funding.
- Success was described in terms of reduced in-flow and infiltration losses, improved infrastructure condition, better coordination, more efficient operations, and stronger long-term system sustainability.

SOAR 2: Solid Waste

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Solid waste management in the Lehigh Valley is guided by Pennsylvania's Act 101, which requires county-level waste planning and recycling programs.



- Counties must ensure long-term landfill capacity and provide recycling services in mandated municipalities.
- Waste is managed through a system of municipal contracts, private haulers, transfer stations, and landfills.
- Recycling and yard waste programs vary by municipality, with scheduled hazardous waste collection events for special materials.
- Most waste is processed at three active landfills located in Northampton County.
- Effective waste management supports environmental protection, public health and long-term regional sustainability.

SOAR main ideas summary of this subtopic:

- Participants identified landfill capacity limits, illegal dumping and uneven composting access as key waste management challenges.
- The region's existing recycling systems, local haulers and yard waste facilities were seen as strengths that already support diversion and processing.

- A major theme was expanding waste reduction, recycling education and composting programs, including community-based and cooperative composting models.
- Participants emphasized opportunities to improve organics management and landfill diversion, including broader composting infrastructure and better separation of waste streams.
- There was interest in exploring innovative waste-to-energy and cost-reduction approaches, alongside improving affordability and efficiency of waste services.
- A recurring theme was the need for stronger public engagement and education, as many residents support composting and recycling but lack clear guidance or access.
- Participants highlighted opportunities to expand electronic waste recycling and year-round recycling access, improving convenience and participation rates.
- Looking ahead, participants envisioned a more sustainable, circular waste system with higher diversion rates, reduced landfill dependency, and stronger community participation.
- Success was described in terms of reduced landfill use, increased composting and recycling, better waste education, and overall more sustainable waste management practices.

SOAR 3: Gas and Electricity and Broadband

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Natural gas (mainly provided by UGI Utilities) supports heating, hot water, and industrial energy use across the region.
- Gas infrastructure is uneven, and expanding service can influence where development is feasible.
- Electricity is essential infrastructure that must keep pace with population and job growth.
- Grid reliability, capacity, and modernization are key concerns for future development and resilience.
- Energy systems are shifting toward renewables, electrification, and improved efficiency.

Community Infrastructure

Electricity

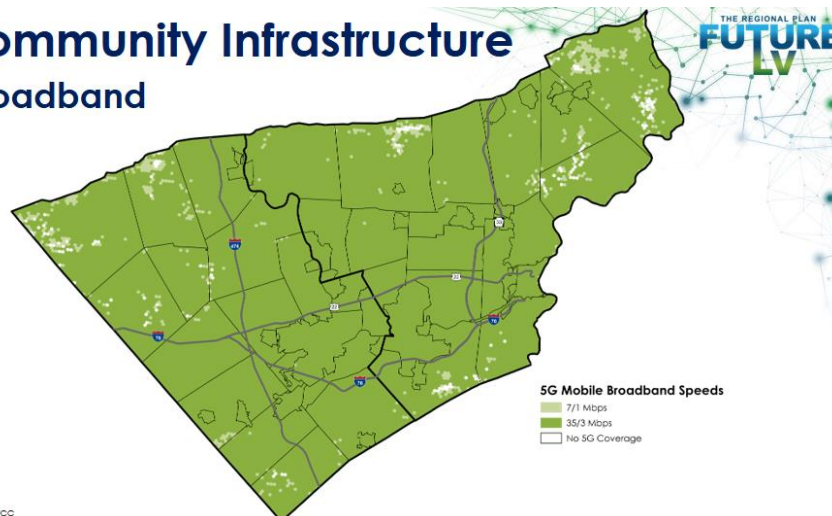
- Planning for Future Energy Needs
 - Transition toward renewable energy sources
 - Increased electrification (EVs, electric heating/appliances, internet of things)
 - Need for grid modernization and smart technologies
 - Importance of energy efficiency and conservation



- Broadband is now critical infrastructure for homes, businesses, and industry.
- Internet access varies across the region, with a mix of fiber, wireless, and satellite technologies.

Community Infrastructure

Broadband



- Ensuring broadband access is important for equity, education, healthcare, and economic opportunity.

SOAR main ideas summary of this subtopic:

- Participants identified fragmented planning and limited municipal control (due to PUC regulation) as key challenges in utility and broadband infrastructure.
- The region's existing utility networks, regulated systems, and strong stakeholder interest were seen as foundational strengths.
- A major theme was improving coordination across providers and jurisdictions, creating more unified and user-friendly planning and decision-making processes.
- Participants emphasized opportunities for utility expansion and equitable access, including extending gas, electric, and broadband service to underserved rural and suburban areas.

- There was strong interest in improving coordination of underground utilities with transportation and road projects, reducing duplication and improving efficiency.
- A recurring theme was the need to address reliability, access, and infrastructure awareness, including better data on service availability and internet speeds.
- Participants highlighted opportunities to promote sustainable infrastructure practices, such as underground utility placement, tree coordination policies, and better long-term system planning.
- Looking ahead, participants envisioned a more coordinated, transparent, and universally accessible utility system, with improved broadband access and more efficient infrastructure upgrades.
- Success was described in terms of better coordination among providers, expanded service coverage, improved reliability, and reduced disruption from utility conflicts and construction.

8

STRATEGY LAB

Care and Crisis

Strategy Lab 8: Care and Crisis

How strengthening our hazard mitigation, emergency services and health care systems is integral to regional preparedness and community well-being. It was held May 20 at 2 pm, with 8 participants in this Strategy Lab.

Roundtable Discussions: 1) Hazard Mitigation, 2) Emergency Services, 3) Health Care

Summary of Overall Themes

Across all discussion areas, several common themes emerged:

- Strengthening regional preparedness and resilience was a core priority, with emphasis on reducing risks from natural and human-caused hazards through proactive planning, coordination, and mitigation strategies.
- Coordination and regionalization of services emerged as a consistent theme, particularly for emergency response, fire/EMS, dispatch, and healthcare systems to improve efficiency, coverage, and service delivery.
- Staffing shortages and workforce challenges were widely identified across emergency services and healthcare, with concerns about recruitment, retention, training pipelines, and long-term workforce stability.
- Participants emphasized the importance of improving response systems and operational efficiency, including faster emergency response times, better dispatch accuracy, and improved interagency communication.
- Public health, safety, and equity were recurring priorities, with attention to supporting vulnerable populations through expanded access to healthcare, emergency sheltering, and community-based services.
- Increasing focus was placed on education and prevention, including public awareness around hazard mitigation, cyber safety, fraud prevention, and health-related preparedness.
- Strong interest was expressed in improving system capacity and infrastructure, including emergency facilities, healthcare networks, and coordinated resources to support population growth and aging needs.
- Climate and environmental risks -- particularly flooding, severe storms, and sinkholes -- were recognized as major long-term challenges requiring integrated land use and infrastructure planning.
- Overall, participants envisioned a more coordinated, well-staffed, and resilient care and crisis system that improves preparedness, enhances service delivery, and ensures equitable access to essential health and safety services.

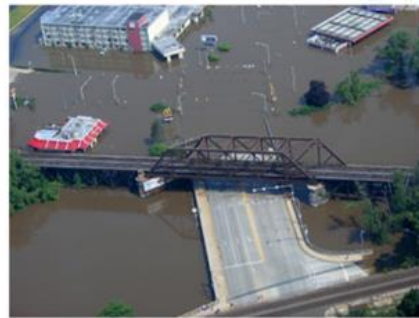
SOAR 1: Hazard Mitigation

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Hazard mitigation focuses on reducing long-term risks to people and property before disasters happen.
- The 2024 Lehigh Valley Hazard Mitigation Plan identifies and assesses 27 hazards, including natural and human-caused risks.
- Flooding is the region's most significant and costly hazard, driven by heavier storms and climate trends.
- The Lehigh Valley has experienced frequent flood events and millions in related damages over time.

Flooding

There have been 235 flood and flash flood events in the Lehigh Valley from January 1, 1996 to March 31, 2023, causing 145.75 million dollars in property damage and 2 million dollars in crop damage



- Other major risks include winter storms, hurricanes, sinkholes, pandemics, and cyber threats.

Cyber-Terrorism

Attacks	Description
Card Skimming	Illegal copying of data from a card's magnetic stripe to create a duplicate card for fraudulent purchases or withdrawals.
Phishing/Smishing/Vishing (Email/Text/Voice)	Using fake e-mails, texts, and phone calls to trick individuals into revealing personal information for nefarious uses.
Weaponized Hacking	The deployment of cyberattacks or malicious code specifically designed to cause physical destruction, severe operational disruption, or real-world harm.
Deep Fakes	Highly realistic, AI-generated synthetic media (audio or video), designed to flawlessly impersonate trusted figures.

- Karst geology makes parts of the region vulnerable to sinkholes, affecting buildings and infrastructure.
- Past disasters (like floods and COVID-19) show the importance of preparedness and resilience.

- Planning and land use decisions help reduce risk and improve long-term community safety.

SOAR main ideas summary of this subtopic:

- Participants identified emergency response and fire protection capacity, including volunteer staffing and apparatus availability, as an area where stronger regional coordination could improve service delivery and NFPA compliance.
- The region's existing emergency services infrastructure and resource base were seen as strengths supporting hazard response and community safety.
- A major theme was the need for greater regionalization and coordination of fire and emergency services, particularly to improve staffing efficiency, training, and response effectiveness.
- Participants highlighted growing concerns around cybersecurity threats, fraud targeting older adults, and home-related scams, emphasizing the need for increased education and prevention efforts.
- There was strong interest in expanding public education and training programs, including cyber safety awareness, fraud prevention, and household risk reduction strategies.
- Participants emphasized opportunities for healthcare access improvements as part of hazard mitigation, including expanded community-based care, federally qualified health centers, and lower-cost local services.
- A recurring theme was improving coordination of needs assessments and regional planning for health and safety services, ensuring vulnerable populations are better supported.
- Participants highlighted the importance of accessible, community-based care models, including school-based health services, outreach programs, and street medicine for unhoused populations.
- Looking ahead, participants envisioned a more coordinated and equitable safety and health system, with stronger regional emergency response, improved public education, and expanded access to essential services.
- Success was described in terms of better coordination of emergency services, reduced cyber-related incidents, improved healthcare access, and more equitable support for vulnerable populations.

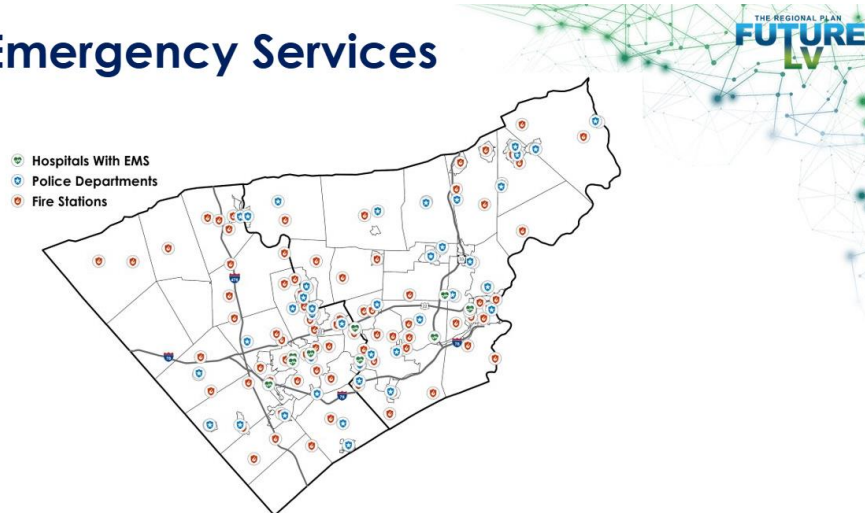
SOAR 2: Emergency Services

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Emergency services include fire, police, EMS, HAZMAT, snow removal, service patrols, and public hotlines.

- These services are essential for public safety and regional resilience during both everyday incidents and major disasters.
- Fire, police, and EMS provide core response functions for fires, crime, and medical emergencies.
- Specialized teams and partners like FEMA and the Red Cross support large-scale disaster response and recovery.
- The region has a large network of emergency agencies across both Lehigh and Northampton counties.

Emergency Services



- Coordination between many agencies is critical to effective response and community safety planning.

SOAR main ideas summary of this subtopic:

- Participants identified fire and EMS resource availability and staffing shortages (including 911 dispatchers and first responders) as key operational challenges impacting response capacity.
- The region's existing emergency services infrastructure and experienced personnel were seen as strengths supporting public safety response.
- A major theme was the need for better regional coordination and potential regionalization of emergency services, including staffing alignment, training, and shared resource management.
- Participants emphasized opportunities to address dispatch staffing shortages and training gaps, with a focus on improving qualification pipelines and retention of 911 personnel.
- There was strong interest in improving emergency response coordination and system efficiency, including reducing misdirected responses and improving dispatch accuracy.

- Participants highlighted the importance of better planning for large-scale events and facility evacuations, particularly in nursing homes, assisted living facilities, and recovery/shelter coordination with partners like the Red Cross.
- A recurring theme was strengthening healthcare and emergency preparedness coalitions, with faster coordination timelines and clearer interagency agreements for emergency sheltering and response.
- Participants noted opportunities to improve use of regional staffing models and shared services, potentially including county-level coordination to reduce duplication and improve coverage.
- Looking ahead, participants envisioned a more coordinated, well-staffed, and efficiently managed emergency services system, with improved dispatch accuracy, faster response times, and stronger interagency collaboration.
- Success was described in terms of reduced response errors, improved staffing levels, faster emergency response times, fewer fatalities, and more efficient use of emergency resources.

SOAR 3: Health Care

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Healthcare is a major industry in the Lehigh Valley, supporting over 21% of jobs.

Health Care

Top 10 Employers in the Lehigh Valley



1- Lehigh Valley Hospital Center	6- Wal-Mart Associates Inc.
2- Saint Luke's Hospital	7- Mack Trucks Inc.
3- Lehigh Valley Physician Group	8- Giant Food Stores LLC
4- Saint Luke's Physician Group Inc	9- Allentown School District
5- Amazon Services LLC	10- Federal Express Corp (FedEx)

Major Lehigh Valley Health Care Employers

Lehigh Valley Hospital Center	Good Sheperd Rehabilitation Network
Saint Luke's Hospital	KidsPeace
Lehigh Valley Physician Group	AAHC Allentown LLC
Saint Luke's Physician Group Inc	County of Northampton
HNL Lab Medicine	Lifepath, Inc.

- Key roles include home health workers, nurses, and nursing assistants.
- Four of the region's top employers are in healthcare.
- Major healthcare providers include hospitals, physician groups, rehab networks, labs, and care organizations.
- Hospitals are key employers, emergency resources, and anchors of regional infrastructure.
- Healthcare access and capacity are important for supporting population growth and an aging population.

- The system plays a major role in regional resilience, equity, and long-term planning.

SOAR main ideas summary of this subtopic:

- Participants identified healthcare workforce shortages, particularly health aides and temporary staffing in nursing homes, as a key challenge affecting care capacity and stability.
- The region's strong healthcare systems, networks, and workforce pipelines (including career-linked training pathways) were seen as foundational strengths.
- A major theme was the need to improve recruitment, retention, and compensation, with emphasis on livable wages and transitioning temporary roles into full-time positions.
- Participants highlighted opportunities to expand the healthcare workforce through training programs and education pipelines, strengthening staffing across hospitals, long-term care, and community health settings.
- Mental health access and behavioral health services were identified as critical gaps, with opportunities to increase caseworkers, expand group homes, and improve service availability.
- Participants noted concerns about organizational structure and resource allocation ("top-heavy" systems), suggesting opportunities to better distribute funding toward frontline care and staffing.
- A recurring theme was the importance of regional coordination between major health networks, including bi-county collaboration, shared planning, and coordinated service delivery.
- Participants emphasized the need for stronger public health preparedness systems, including early warning systems, pandemic response coordination, and clearer financial thresholds for intervention.
- There was interest in improving cost management and evaluation of healthcare delivery, particularly for vulnerable populations and low-income communities.
- Looking ahead, participants envisioned a more coordinated, equitable, and workforce-stable healthcare system, with improved access, stronger staffing levels, and better integration across providers.
- Success was described in terms of increased workforce stability, expanded mental health access, improved regional coordination, and more efficient and equitable delivery of healthcare services.

9

STRATEGY LAB

Trends and Future Forces

Strategy Lab 9: Trends and Future Forces

How rapidly changing technology and societal preferences require us to anticipate change and adapt to support regional development and mobility. It was held May 21 at 9 am, with 10 participants.

Roundtable Discussions: 1) Artificial Intelligence, 2) Technological Mobility, 3) Infrastructure, 4) Tech-Shaped Future

Summary of Overall Themes

Across all discussion areas, several common themes emerged:

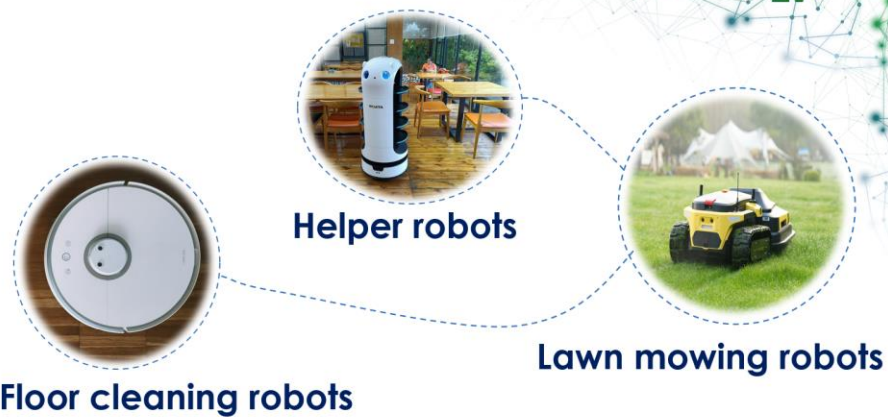
- Proactive planning is essential to prepare for rapid technological change.
- Universities, workforce assets, and regional institutions are among the Lehigh Valley's greatest strengths.
- AI should be leveraged to improve environmental stewardship, infrastructure management, and economic competitiveness.
- Public policy and governance frameworks must evolve alongside technology.
- Workforce development and retraining will be critical to ensuring broad participation in future economic opportunities.
- Infrastructure investments must balance technological growth with sustainability, affordability, and quality of life.
- The region aspires to become a leader in responsible innovation, technology adoption, and future-focused planning.

SOAR 1: Artificial Intelligence

LVPC PowerPoint presentation main ideas summary of this subtopic:

- AI is already shaping daily life and is a key driver of future trends and technologies.
- It works by analyzing large amounts of data to identify patterns and make predictions.
- AI is powerful but not perfect, so human oversight (“human in the loop”) is still necessary to ensure accuracy.
- AI systems can reflect the quality of the data they learn from, meaning they may not always prioritize the most reliable sources.
- AI-powered tools and robots are already being used in retail, restaurants, and household tasks.

Day-to-day AI Robots



- Automation is becoming more common and is expected to expand into transportation, delivery, and public spaces.
- Communities will need to adapt to increasing use of autonomous and AI-driven systems.

SOAR main ideas summary of this subtopic:

- Participants identified AI-driven growth (data centers, automation, self-driving vehicles) as an emerging opportunity with both economic and infrastructure implications.
- The region's energy capacity, workforce base, agricultural strength, and strategic location were seen as key assets for supporting AI development.
- A major theme was using AI to support economic diversification and workforce development, particularly in healthcare, agriculture, and tech-enabled industries.
- Participants highlighted strong opportunities for AI in agriculture and environmental management, including precision farming, GIS tools, drone use, and ecosystem monitoring.
- AI was seen as a tool to improve planning and decision-making, especially for land use, infrastructure siting, and environmental impact assessment.
- A recurring theme was the need for clear governance and policy frameworks, with most regulation viewed as coming from state and federal levels.
- Participants emphasized both opportunities and concerns around automation and transportation innovation, including self-driving vehicles and mobility access.
- Environmental and community impacts were a key focus, with emphasis on responsible AI deployment that supports sustainability and public safety.
- Looking ahead, participants envisioned a balanced approach to AI adoption, supporting innovation while protecting farmland, ecosystems, and community stability.

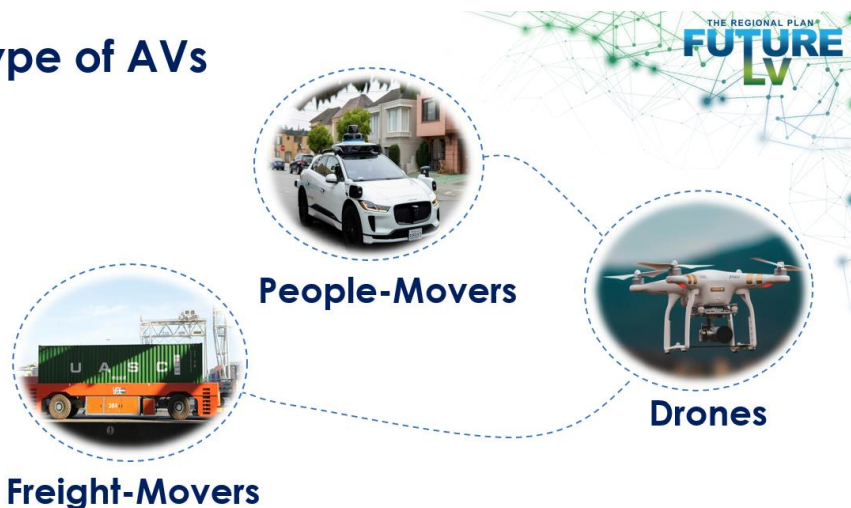
- Success was described in terms of responsible AI growth, improved environmental monitoring, stronger agricultural productivity, and positive economic and workforce impacts.

SOAR 2: Technological Mobility

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Autonomous vehicles use sensors, software, and AI to operate with limited or no human input.
- They rely on technologies like GPS, LIDAR, cameras, radar, ultrasonic sensors, and AI for navigation and safety.
- AVs are expected to evolve across different levels of automation, from driver assistance to full autonomy.
- Future autonomous mobility includes passenger transport, automated freight movement, and drone-based services for delivery, inspection, and emergency response.

Type of AVs



- These technologies could improve transportation efficiency, delivery systems, and access to services.

SOAR main ideas summary of this subtopic:

- Participants identified drones, AI, and emerging mobility technologies as key opportunities to improve safety, emergency response, and public services.
- The region's universities, colleges, and research capacity were seen as core strengths supporting innovation and workforce development.
- A major theme was expanding drones and automation in public safety, especially for fire, rescue, and emergency response applications.
- Participants emphasized the need for clear liability frameworks and governance systems to guide responsible technology deployment.

- There was strong interest in developing AI monitoring, tracking, and oversight systems to ensure safe and accountable use.
- A recurring theme was the region's potential to become a leader in testing and shaping technology policy, particularly around AI and liability standards.
- Participants highlighted the importance of regional collaboration among universities, planning agencies, and public sector partners.
- Looking ahead, participants envisioned a region that leads in responsible tech innovation, balancing advancement with safety, regulation, and public trust.
- Success was described in terms of stronger emergency response capabilities, increased research investment, and leadership in AI and drone governance.

SOAR 3: Infrastructure

LVPC PowerPoint presentation main ideas summary of this subtopic:

- Infrastructure focused on the systems needed to support emerging technologies and future growth, from digital twins.
- Digital twins combine real-time data from sensors, transportation networks, weather systems, and other sources to create dynamic models of communities and infrastructure to emerging infrastructure technologies.
- Modern infrastructure is also incorporating new technologies such as energy-generating infrastructure and advanced energy systems such as Small Modular Reactors.

Energy Generation

Infrastructure becomes a generator, with roads, sidewalks, buildings, and vehicles harvesting solar, kinetic, and embedded energy as part of their design



Paving tiles converting kinetic energy from foot traffic into electricity.



Advanced Small Modular Reactors for on-site energy generation

SOAR main ideas summary of this subtopic:

- Participants identified infrastructure capacity challenges related to emerging technologies (especially AI and data centers) as a key planning concern.
- The region's universities, civic institutions, workforce capacity, and existing infrastructure systems were seen as strong foundations for future development.

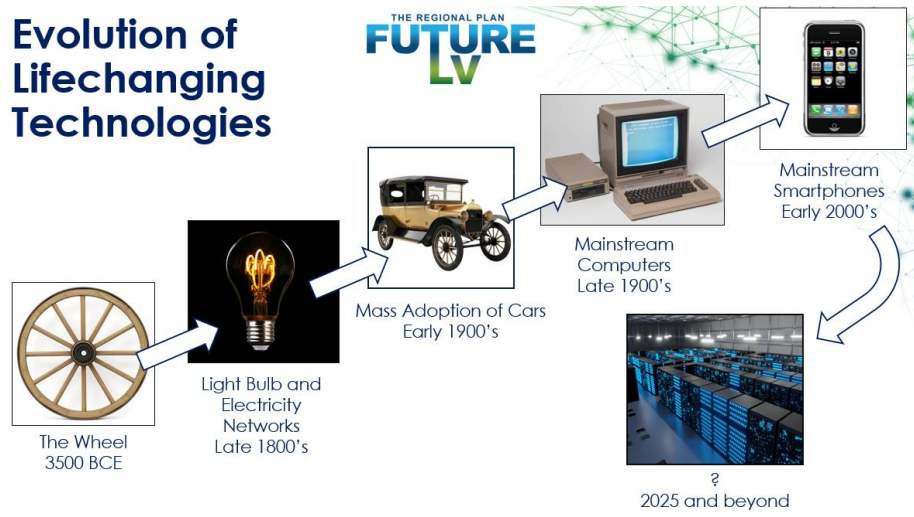
- A major theme was leveraging regional collaboration and partnerships to translate ideas into actionable infrastructure planning and implementation.
- Participants emphasized opportunities to improve energy efficiency and innovation, including using data center waste heat and other system integrations to reduce costs.
- There was strong interest in addressing energy demand and infrastructure strain, particularly related to water, energy, and transportation impacts from AI and development growth.
- A recurring theme was the need for short-term, realistic implementation planning combined with long-term visioning, especially for integrating new technologies into infrastructure systems.
- Participants highlighted opportunities to strengthen coordination between public institutions, utilities, and private sector partners to manage growth effectively.
- Looking ahead, participants envisioned a more integrated and efficient infrastructure system, supported by innovation, regional coordination, and smarter resource use.
- Success was described in terms of lower energy costs, improved infrastructure resilience, expanded partnerships, and ensuring infrastructure capacity keeps pace with technological growth.

SOAR 4: Tech-Shaped Future

LVPC PowerPoint presentation main ideas summary of this subtopic:

- AI is driving major advances in fields like biotechnology and materials engineering.
- In biotechnology, it helps predict protein structures and improves drug discovery and personalized medicine.
- In materials engineering, AI supports the design of stronger, smarter, and more efficient building materials and infrastructure.
- Past technological breakthroughs (like electricity, automobiles, and computing) have reshaped society and development patterns.
- Today's emerging technologies are expected to create another major transformation in how communities live, work, and grow.

Evolution of Lifechanging Technologies



- Regional planning must guide these changes to align with sustainability, economic opportunity, and quality of life.

SOAR main ideas summary of this subtopic:

- Participants identified rapid technological change (especially AI) and planning uncertainty as key regional challenges.
- The region's strong growth, diverse economy, construction activity, and workforce base were seen as core strengths supporting adaptation.
- A major theme was using data and predictive tools to improve long-range planning and anticipate future change.
- Participants emphasized opportunities for workforce retraining and adaptation, particularly for workers affected by AI-driven job shifts.
- There was strong interest in integrating new technologies into construction and infrastructure development to align with future labor needs.
- A recurring theme was positioning the region as a leader in proactive, data-driven policy and planning.
- Participants highlighted the importance of building a flexible, adaptable workforce capable of shifting across industries.
- Looking ahead, participants envisioned a forward-looking, data-informed region that manages change proactively while sustaining growth and investment.
- Success was described in terms of continued population growth, increased investment, and a resilient, adaptable workforce.