



ECONOMY

April 20, 2017

Local Strengths

- Diversification
- Medical and healthcare
- Higher education
 - Quality and variety
- Arts and culture
- Talent
- Growth in manufacturing
- Wide variety of entrepreneurial training and opportunities
- Location
 - Live here and work here
 - Live here work elsewhere
 - Live elsewhere and work here
- Food culture – restaurant quality of major metros; breweries; active food culture; strong following
- Tourism – outpacing other areas of state
 - Hotel bldg.
 - Good promotion and marketing of opportunities
 - Diverse activities
 - Amusement parks
 - Shopping
 - Historic places and events
 - Festivals
 - Art
 - Symphony
 - Trails
 - Proximity to larger markets
 - Access to high income individuals to invest
- Access to markets
 - Cost of doing business lower than large metros
 - Transportation logistics
- Tipping points? Housing? Ag?
 - Yes it is an issue
 - Lowest unemployment in a long time
 - Attracting talent
 - Affordable housing issue – not enough in urban and suburban
 - Look at job creation relative to acres of land use
- Old small towns and boroughs – could be opportunity too



- Past 10 years growth is good – as infrastructure strengthens more manufacturing will come back even stronger – (to address threat below on LV prof group)
- Regionalism – 62 municipalities working together
- Airport
- Capital access system
 - Maturing equity investment
- Development community
 - Great developers that are community minded

Local Weaknesses

- Regulations – ease of process
- Wage rates
- Can people afford to live here?
- Can't produce skilled workers fast enough – labor inventory
 - Curriculum issues – gap between what the business needs and what is being taught
- Space for entrepreneurial business – incubation
 - 5 – 40k sq ft
 - KIZ zone – incentive
- All forms of industrial inventory – demand for under 200,000 sq ft
 - No space - hard to find
 - EDC looking to subsidize this
 - Cost of industrial land
 - Transportation and logistics pushing up industrial land prices
- Unwilling property owners – biggest challenge to redevelopment

Local Threats

- Unemployment with skilled workers – Lehigh valley professionals group
 - IT; HR; etc. back office type jobs/corporate service type jobs
 - Jobs heading overseas; contract work;
 - Taking lower skilled 'survival' jobs
- 'Brain drain' – want to make sure talent stays here in LV
- Size of labor shed – running out of people of all skill levels
 -
- Manufacturing and warehousing competing for labor
- Commonwealth and county incentives for economic development
 - No longer what they used to be

Local Opportunities

- Agriculture and outdoor recreation – untapped resource
- Talent retention
 - Draw them back when want to start families
- Suburban redevelopment



- Office
- Industrial parks
- Creative ways to support development in absence of government incentives
- Bring large corporations into the LV
 - Auto; Heinz
- Healthcare Research
- Hazard mitigation plans
- High value uses - Density
- Warehouse logistics type buildings – something better – manufacturing
- Technology companies
- Federal corporate tax changes
 - Need to prepare to be attractive to investment that will come
- Federal infrastructure funding – need to be recipient
- Airport – accommodate the freight; want more passenger opportunity
- Stay informed to what is coming – transformative changes/shifts that impact our region
- Infill?
 - Lots of opportunities for small scale
 - Boroughs are having infill
 - Beers property example
 - Industrial
 - Lehigh Valley Dairy – Whitehall
 - Martin Tower – Bethlehem
 - Black Diamond – Easton
 - Bethlehem Steel – Bethlehem
 - Air Products - Trexlertown
 - Dixie Cup – Wilson
 - Route 191
 - Route 512
 - Boyd Theatre - Bethlehem
 - Goodman Bldg - Bethlehem
 - 315 Columbia - Bethlehem
 - West Bethlehem Armory - Bethlehem
 - Old Brewery Tavern – Brewery - Bethlehem
 - Route 309 properties in Upper Saucon
 - Southern 309
 - South 10th in Allentown
 - Stefko Blvd - Bethlehem
 - Rock Church – Easton
 - MacArthur road – Whitehall
 - Old Retail and Older Office bldgs.
 - Jacob's Grocery – Easton
 - Armory – Easton



Other Comments

- School property tax? How does that impact economic development?
 - Need to think through where schools are funded – need to make sure they aren't negatively impacted

LAND USE

April 20, 2017

- Predictions for when LV is built out (max build out, current trends, various build out scenarios)
- SWL example of modeling land uses
- Progress/regional zoning—multi-municipal planning

Local Strengths

- Farmland/Rural/Natural Features—maximize preservation
- Variety of features
- Urban/suburban redevelopment/densification
- Local manufacturing
- Industrial park system
- Prioritization of parks/recreation/entertainment; rails to trails
- Diversity of land use/variety of land use
- Historic resources/structures
- Cultural/higher education facilities
- Hospital systems
- Main Streets improvements; socialization opportunities
- Ethnic/cultural festivals, Bacon Fest, increased events
- Location!
- Multi-modal system is ok
- LVPC/2 county regional planning

Local Opportunities

- Self-driving/autonomous vehicles
- More multi-municipal plans
- Innovative; Strong Towns
- Infill for vacant strip-malls



Local Weaknesses

- Ag lands vs. warehouses
- Truck traffic/freight; thru traffic
- Location
- Aging infrastructure; mobility
- Federal infrastructure funding is stagnant; 80/20 split federal/state
- Tax benefits vs travel through costs; shared burdens
- Lack of general public education of the value of ag lands, densification of housing
- Cost-Benefit analysis of development; short-term & long-term
- Creating space for the next generation; dated zoning codes
- Small group of planners for 1000s of people
- Number of municipalities
- Regulatory requirements: ordinances, regulations, zoning, time requirements
- Local politics, regional politics
- Legislative boundaries/districts
- Stronger commercial/housing architectural codes
- Affordable housing: regulatory costs, aging housing stock
- Density; need to improve density; lack of infrastructure to support more dense housing
- Fair housing requirements
- Large-lot residential zoning vs cluster developments—lack of sewer/water, DEP, MS4 requirements
- Demographics in leadership/planning boards/commissions
- Deficit of knowledge about planning processes/land development processes
- Situational awareness of your surroundings
- Lack of requirements for officials
- Too much parking in some areas at retail/commercial; some boroughs don't have enough parking
- Accessibility and development

Local Threats

- Large-scale retail changes/retail vacancies; decreasing demand for retail space

TECHNOLOGY

April 13, 2017



Local Strengths

- Ben Franklin Technology Partners of NE Pennsylvania – innovation
- Business incubators
- University and colleges – higher ed – programs to support innovation
- Entrepreneurship education
 - o Method – build something fast and sell and make money – concern around wanting to build a long term sustainable company
 - Potential threat to economy
 - Opportunity for funding for long term businesses
- Strong Internet infrastructure in the Lehigh Valley. This is evidenced in that firms are re-locating data centers from NYC to here to avoid losses caused by Hurricane Sandy, for example.
 - o High speed internet (fiber optics) available in rural areas
 - o Location of IT infrastructure for NY Metro businesses etc.
 - o Wired and wireless connectivity
- Health network
 - o Emergence of tele-medicine
 - o LVH partnership for better health information exchange (HIE)– accessible data particularly useful for Veterans
 - We are 1 of only 2 health networks in country doing HIE
 - Personal health records – exchangeable between health providers
- Mobile network
 - o 250,000% increase in mobile data usage/traffic
 - Almost half is video data
 - o Physical infrastructure limits – ‘pipes’
 - Needs to be expanded and upgraded and densified
 - Incentives for densifying networks
 - Politics can complicate it
 - Young people look at signal strength before purchasing a home
 - Attachments on streetlights
 - LVPC to provide common sense guidance to municipalities on how to address the densification of networks
 - Public safety project – first net
 - IOT – internet of things – machines talking to machines; devices talking to devices
 - Network management of companies of devices; local businesses; local governments to work together so that devices aren’t pinging at the same time
 - Same network for video and data
 - Traffic speeds and sizes
 - Backhaul to cell sites robust
 - Airwaves is the constraint
 - o Data usage/traffic will grow 5x per month by 2022
 - o Public wi-fi



- Mobile carrier \$22 billion / year to maintain and upgrade system
- Municipalities don't have the capacity – fell apart
- Wi-fi has role in wireless ecosystem – depends on who mans it and maintains infrastructure
- Public/private/nonprofit partnership – coordination with infrastructure upgrades; example: rt 22 – lay new data infrastructure when building road
- Smart appliances

Local Opportunities

- Corporate retraining at mobile companies
 - o Internal training because need specific skills
- Policy suggestion
 - o Improve access to government owned infrastructure; education to municipalities on what small cells are
 - Example: streetlamp
 - Reasonable fees
 - Simplify zoning
- Public private partnership
- Look to energy efficient options – technology provides a responsibility to do so
- Educational component. Currently there is lack of genuine interest in sustainable business but moreso in selfish earning-based agendas. Cybersecurity has a negative employment rate. Not high enough salaries to ensure retention and expertise.
 - o We need to replace theory-based cybersecurity courses with hands-on technical engineering
 - o De-stigmatize the pursuit of trade careers instead of traditional 4-year degrees
 - o Private sector especially needs to support continuing education and vocational rehabilitation
 - o Training should take place in the workplace

Local Weaknesses

- Data infrastructure and security
 - o Needs to be better safeguarded. We are inherently trusting of computer/data infrastructure which was only built to work, not built to withstand hacking. Some say we're a decade behind in preparedness for this.
 - o With 1.5 billion devices worldwide, diversification of supporting their unique needs is needed
 - o Manufacturing hardware and providers – all aspects of infrastructure
 - o Power companies in region could take lead
 - o Manufactures of components – build security into components as replacement comes about, the security will be upgraded
 - Medical example – hack component and get into network to changes someone's medication on wireless pump
 - o Wireless providers are working on providing layers of security for customers
- 4 year programs failing on cyber security education



- Hands on education missing
- Not ready for jobs in cyber security engineer
- It still includes a trade-job type component - missing from this program
- Critical shortage of skilled trades
- Negative unemployment rate in cyber security
- More businesses need to commit to training people internally – invest in own employees – can't always expect programs to give people all the skills what you need
- Vocational rehabilitation – veterans
- Government
 - Same security issues as private sector
 - CISP – specific security personnel
- Detroit car show is no longer a car show but now a technology show
- Uber – transportation as a service
- American love affair with car will be over soon and transition to transportation as a service
- People will move more into the cities
- Improve government infrastructure right-of-way (eg. Rent paid on small cell pole installations). Simplify the zoning process for these improvements.
- Local transit to reduce car usage – rail
 - Worst quality air
 - Technology solutions to address air quality – retrofit trucks for exhaust
 - Incentive ridesharing

Local Threats

- All utilities, electrical grid vulnerable to hacking. Netizen is currently conducting research through the Department of Energy on how to safeguard.
 - Automated vehicles
- Equity issue between security and protection of personal information
 - Public wifi etc. access to privacy as much as access to information
 - Access to internet is a 'human right' – facebook and google
 - People without access to internet are marginalized.
 - People consider purchasing homes based on signal strength/connectivity

HOUSING

March 29, 2017

Generalization about housing and cities is skewed; does not reflect demographics of area (SW); Can't have redevelopment authority under state law; townships do have redevelopment needs, and not just commercial



- Age of housing is the issue; county has a waiting list of 300; development of new is difficult (lack of land, NIMBY, no to THs)
- Expertise not available at local level; school districts – new apartments generate demand for new schools, fiscal impacts
- Perceptions from surrounding area re: housing affordability in comparison to surrounding areas, inflation in housing valuation
 - o Also a transportation and economic development issue
 - o NY wages will drive up cost of housing/living
 - o HB Housing taxes will go into funding other areas
 - o FL has sales taxes
- PA does not tax retirement income, resulting in growth of housing pop., driving up housing prices
 - o People 80 and over largest growing pop
- Affordable housing for low income
 - o Wages don't cover housing costs
 - o Lack of diversity (micro-apts, apts)
 - o Housing first model
 - Housing list has been consolidated but still a backlog
 - HUD cuts
 - o Transportation limits access to employment
 - Costs of maintaining car cuts and other expenses into housing budget
 - o New affordable housing
 - Availability not as much an issue as quality in Allentown
 - Setting aside money for new affordable housing
 - Density bonuses (requires political will)
 - Policies directed to lower income residents
 - o Other expenses (e.g. student loans, groceries) inhibit homeownership
 - Multi-generational student debt
 - Improving economy has generated new issues (increase rental competition)
 - Student loan rates
 - Spending habits have changed, credit cards
 - Tax increases
 - o Homes for older adults (downsizing, single-story)
 - o In Easton, developers from out of area buying from blighted list with no intent to keep as house for low, middle income HHs (can't reach ROI without going for high end); maintain balance will be difficult in coming years
 - Houses are being significantly upgraded
 - Appraisal processes for homeowners
 - Without significant incentives to keep rental prices low, we'll be behind the 8 ball; Incentives = government programs (gutting, rehabs)



- Coordinated entry – people who need AH can call one number; data can help identify, target needs
- Homelessness/Poverty
 - Families doubling and tripling up is through the roof
 - \$733 average income for the month (SSI); housing costs out of reach
 - Elderly residents on fixed incomes; aging in place; deferred maintenance
 - 10-20 years, homes may come on market that need considerable rehab
 - Spikes in rental rates
 - Retired residents divesting of housing in favor of renting, then facing steep increases in rents
 - Policies for managing rent increase (caps, freezes)
 - Use of hotels for housing, poor housing conditions
 - Plan should focus on providing affordable, accessible units; provide for different levels of affordable housing
 - 72% single/2-4 families dealing with MH issues, relying on food banks
 - Residents living in automobiles
 - Tax increases cutting into household budgets
- Unrelated households – how does student population factor into the numbers; Lehigh adding 1,500 students, driving up rental prices in Southside Bethlehem
- Blight another issue in Bethlehem – difficulty keeping up with inspections, tracking down owners, attracting contractors
- Neighborhood stabilization program
- Affordable housing not even affordable for developers anymore
- Layers of regulation (SW, energy) driving up costs of building AH
- Move to attract international investors – businesses unwilling to pay fair wages; new jobs should not drive down wages/quality of life
- Shortage of housing of all types in LV
 - Driving up rental prices
 - Housing ownership costs are not rising
 - Tax increases
- What can be done
 - Education is key to generating support - General population does not understand what's coming down the road
 - Impact of Housing funding cuts
 - Representatives need to understand that AH population is growing
 - Housing diversity
 - Accessory/In-law units
 - Addition of septic, other reqs. Drive up costs, and therefore rental affordability
 - tiny houses
 - Impacts of Program cuts



- Voucher program – waiting lists in NC and LC Has; unmet need
- It all comes down to cash; market can't close income/housing cost gap; government involvement needed
- Looking at regulations driving up development costs, density reqs., lot lines
 - Prioritize facilitating housing development, then look at other issues
- Effects of other policies (NIZ)
- Money from HUD for rehabbing rentals; AH set asides discourage involvement in such programs (e.g. undersubscription in Allentown)
- Density of housing for families, impacts on school, childcare (for pre-school kids) presents challenges for families

PUBLIC HEALTH

March 29, 2017

- Reach out to local hospitals
- County Health Needs Assessments, strategic plans, looking for overlaps instead of re-creating
- Sidewalk inventory, bike/ped plan, transportation multi-modal collaborations (staff)
- Lanta funding, van svc has been primary in providing transportation for those with disabilities—maintaining and securing funding and increasing would be crucial
- Most people do not understand what public health is vs. primary care, what is taking people out before the expected maximum age, don't make it to the expected age, much bigger than having a doctor on every corner, PH has been meeting with planning and zoning, PH is regulatory—food inspections, daycare inspections, is not a medical delivery system, PA ranks 48th in public health infrastructure, fragmented system in the state, only 8 other health department in the state, in New Jersey every county has a health department, hospitals have very dynamic community health departments, hope the separations go away and we all end up being public health entities
- Primary care does not achieve all the healthcare of our communities, designed to exclude vulnerable communities, CNHAs showed that LGBT have had problems with health care, needs to take into consideration that the health systems created a long time ago was not made to meet the needs of today, look outside the traditional health care delivery systems, availability of health care in language that they can understand
- Worked on comp plan project that looked at public health, what improves your health and your happiness, housing rehabilitation, what makes your quality of life better, St. Luke's/community schools, how all the issues are related, what does health in all policies



means, socialization of walking to school is a health benefit for the children, trying to have Easton buy into

- Run a double snap program for local fruits and vegs, no one from the snap offices has talked to me, you have offices dealing with health but they are so busy and backlogged that they can't collaborate, farmers markets vouchers – only 41% have been redeemed – what are the transportation barriers, moms came in and did not know how to use them, fragmented system
- CNHA ranking article in paper this a.m. – quality of life and physical environment were ranked pretty low, why are we ranking so poorly
- What are the data points they use to do the rankings for the quality of life (staff)
- Large commuting population and don't have time for extra curricula activities and lower the quality of life
- Commuter times – Lehigh County – average 25 minutes; Northampton County – 26 minutes average; most major metros are over 30 minutes (staff)
- Community and resiliency – people are not happy, really strengths here that make people say we have a good q of life; vast # of churches, charitable groups, # of athletic programs available, in Allentown the athletic groups are struggling, there was a strong demand and just don't have as many organized activities that brings people together as we use to, people are reverting to staying in their homes and they don't know their neighbors, when they become unable to get around, don't have anyone to pick-up and use vouchers, etc., need some type of fabric to bring people together, looked to the schools and hospitals to fix everything, have to bring it back to the community to fix this
- Communication – so many avenues of communication, depends on demographics, elderly are having trouble getting info, don't know how to solve this (staff)
- The newspaper is becoming less and less for elderly because they cannot afford it and don't use the computers, part of the problem with senior community is the communication
- Seniors – trusted sources for information, relying on neighborhood associations to be connected in the community, churches and faith communities are seen as trusted source
- Reach out to those neighborhood organizations come in and have this conversation with them, they know what their people need, important that this conversation goes out to them
- Organizations that mix the two together – SHH has the parish nursing program, homeless veterans task force, good response from this program because they are trusted, when looking at PH there are populations – homeless population street medicine program, veterans – huge population In this area, VA clinic in Allentown, include these populations
- Air, drinking water, severe housing, driving alone to work, long commute/driving alone, countyhealthrankings.org
- School districts – are we going to reach out to them?
- Joint project with the city's planning department – went to Allen High School, asked students outside of the cafeteria – what development did they want to see in the city: want a dance hall, video games place, but had to add this to the list because it was mentioned often – gainful employment – tired of getting the heat and lights shut off because mom was not able



to get a job; housing – paycheck was going to a substandard landlord; transportation – can find a \$300 car but can't afford the insurance; cable and internet bill is so high so doing research papers on their phones

- Social determinants of health – poverty and lack of sustainable housing and employment, actual or perceived violence (don't feel safe in their community), can't go for a walk in their neighborhood, violence is sometimes done by people in power against vulnerable communities, strong correlation – LGBT fear of discrimination (housing, work); these are big issues to solve
- Proud of our police officers, upset about the comment, they are not the problem, they are part of the solution
- All comments are valid, vet these concerns, first time we are having these conversations, thank you for your comments (staff)
- There is a need for police, whether it is real or perceived, we need to address (staff)
- Walk program – in bath, heavy truck traffic, became such a detriment that we are now bussing them that short distance, couldn't assure their safety
- People don't feel safe biking on our roads, the roads were not built for the current situation
- The farmers market was in the park up there and was hard to get to, what could be developed to help
- Working on issues in a specific community (Catty, Bath), micro urban design studies (staff)
- Where are we going from here?
- 18-24 months to complete the plan, this is the initial information gathering phase, quantitative data, toward fall we will release the "this is what we heard" documents, scenarios, economic modeling, geospatial modeling, Jan – develop GPAs and finalize the document by the end of 2018, constantly evolve as you go thru the process
- In our prison, the director of corrections, 50% are on psychotropic Drugs, emergency rooms nexus of mental health and public health,
- Overwhelming demands of mental health, progress in Lehigh County, inmates being released with enough drugs for 3-5 days and they can't see medical provider for 10 days and they end up back in the prison, resolving this has taken months, whole pharmaceutical is a mess, opioid crisis, behind a massive ball, until there is a huge overhauling of the mental health system, devalued of mental health providers, real grass-roots efforts to cultivate, schools are required to have children that are on ventilators, etc.
- Several organizations are coming together with judge to resolve the prisoner issue, putting people in institutions to have access to those psychotropic drugs
- Part of the solution, Northampton County has been doing this and only 2 graduated, just part of the issue, case where they did give enough drugs for 10 days and they took all at once and committed suicide
- Opening facilities mentally or physically challenged people that own the home, if they are well run, you don't know they are there, if not run well, it is a community nightmare, don't have laws in place that apply to these types of facilities



- Fair housing, civil rights issue, municipalities – code enforcement issues, can't regulate the same way, no solution that is legally implementable (staff)
- Air quality – was a township solicitor, Sierra Club, request that the comp plan include a rec to municipalities include provision to deal with air pollution, ALA using EPA standards and state air pollution monitors ranks metro areas across country, ranking in NC air quality ozone and particulate – F, prime contributor in LV is transportation, diesel engines (ozone, and particulates), part. Affect young and elderly, air monitor is in Freemansburg, move the monitor and add others, good news – diesel engine particulate filter that has been installed on trucks, 90% effective, older trucks do not have them, have to be serviced every 6 months, rec that municipalities – require that trucks that come to their facilities have the filter, ban idling, any new warehouse include a lounge for the drivers so they do not have to idle their trucks to stay cool or warm
- Come to our freight committee meeting, where this being discussed by municipalities and the trucking companies (staff)
- Nationally where we can rolling back regulations, can a muni decide to watch this happen or can something be said in the plan to maintain our environment
- Have large water companies and support water quality recommendations (staff)
- If fed government backs off environmental regulations, who steps up, a lot of best practices (model regulations), but may have to revisit (staff)
- Even state has had cut-backs, so we have to do this locally
- DEP/EPA – vector control done by municipalities, Allentown has most zika cases, Public Health is gearing up for a huge # of birth defects
- Zika here later this year, women that are pregnant have it here, corporations are sending their staff into countries that have these issues, hoping lawmakers knows the ramifications of the federal cutbacks
- Worked with teacher in Allentown that has built an air quality monitor, found that particulates were on the bus routes, substantial variation from street to street; doing canvassing, in person interviews, videos, downtown populations; education is also really key, not just telling but actively engage, Da Vinci Science Center – health and medicine is planned for upcoming exhibits; for adults, 95% of what they know about science is from informal sources; HYPE program Healthy Youth Peer Education

PARKS + RECREATION

March 14, 2017

- Trails – start in Hanover township, UGI glitch, lawsuit, sinkholes, gas line underneath
- Pedestrian access to get to the parks, nice to have trailheads, but encourage people to walk to parks



- Sidewalk inventory (staff)
- Parking for trails
- Evolving what rec space means and how accessible it is to different ages, genders, etc.; multi-generational play (e.g. grandmother playing with grandchild); Europe has many of these; lower walls/high walls, monkey bars that are not so linear; indoor sites (gyms) are opening up; good question – lots of ways to explore
- Europe is very multi-generational in general
- Bought acres next to park and want it to be passive rec, some woods but about 20 acres are open and would like to know more about this
- Forks – the older generation, as soon as we acquire land for a park it ends up being for soccer, football, etc and the elderly are left out; like this idea; have some land that is waiting to be turned into a park
- Rock climbing moved into the indoor space, big rocks what do we do with them and they can become a mecca for rock climbing
- Municipalities getting sued is a problem, limit liability
- Huge cultural differences b/w Europe and America
- Looks like that example may fall under the playground standards
- Expanding use of naturalized playgrounds, Lower Mac has one, touch the environment, get dirty
- Existing vs new playground building, NC wants to rehab existing playgrounds, maybe could incorporate nature-based play areas, expansion isn't as important as fixing what is existing
- Make sure older sites are accessible
- Looking at the downtown (Sullivan Trail) and how to connect to trails; Developer came in and converted the Laneco and made a small outdoor mall, connected adjacent park with a bridge
- Maintaining the existing is tough, stretched thin, too much for the staff to handle, if we try and contract out then the union issues arise
- Live in Emmaus – they built a connector trail, borough swapped land with a private landowner to make the connection; any way the plan could coordinate resources to make this type of things happen, bootstrap the citizens to spearhead projects that need to get done, people use to help maintain parks because they are ownership
- Volunteerism has decreased over the years; educate the public to get involved with the municipality to assist
- Interested citizens are on rec boards and EACs, see what munis have those
- EAC network does outreach, PRPS might have connection to rec boards, South Whitehall has a directory
- Cooperation – we are Portland and surrounded by UMB, the twp does not want to put a trail through to Delaware Water Gap; we are all in this together; how do we communicate, we've tried everything but deaf ears
- Perseverance – if it's worth doing, don't give up



- Create a coalition of like-minded people to make things happen
- Have regular parks & rec labs semi-
- Staff – what are people demanding?
- Indoor areas for practicing – demand was so high this winter (Alburtis)
- Think we have adequate outdoor space, but indoor is lacking, school is booked solid
- How do you find out what the residents want? We are doing a plan and want suggestions how to get input.
- Did an online survey recently and got a good response (Northern Lehigh Rec Authority)
- Parks aren't top priority when looking at muni needs
- Staff – where does park & rec rank?
- My survey indicated it is a high priority and even asked if they would be willing to pay more taxes and about 90% were willing to pay something
- Plainfield – do have an OS EIT but only used for FP, residents do want to see the continuation of the trail and trail connections, do have funding but need to know how to better use the funds, residents do volunteer for rec board and have a contingent of people that say we do not need more rec facilities
- Pfbc – independent agency, don't get any state \$, stock 122 miles in LV and a lot is pvt ownership, we are interested in gwys, reduced in staff, goal is for stocked trout is to be harvested, Monroe renewed the OS bond, no problem for the voters, my land is open for fisherman but there is liability issues even with the law protecting landowners
- ROE numbers for recreation – how many people now about it? That there are all these benefits from outdoor rec? (staff – we've done many presentations on this and willing to do more)
- We were going to fold our bb program and the parents came out against it
- Reach out to businesses to make sure they know about the survey and put money into sponsored posts
- Residents have complained – how were we supposed to know about public meetings, we don't read the legal ads of the newspaper (East Allen)
- What about the passive – hiking, fishing, hunting; places that people can get away from the active sports
- Do you communities know where the facilities are? And if they don't know, who do they contact.
- Nextdoor.com – allows targeted a geographic area (Salisbury police are using this program)
- A lot of parks that are not fully developed yet, maybe looking at those and see what the build-out potential
- Way to involve high school students, what we are working on, we're getting old and moving on and it will be theirs, learn how they can get involved, get the school districts involved
- And the colleges too
- Trout & Schools Program, science curriculum, raise the trout



- Reach out to religious entities, boy scouts
- Target FB sponsored questions – short targeted questions

COMMUNITY FACILITIES

February 7, 2017

- Staff asked what we need to know about community facilities. Allentown Rescue Mission asked if sheltering the homeless and transitioning are part of the plan. Staff responded that they should be, but they are not handled well enough.
- A comment was made that all ages and populations, especially the special needs population, should be considered. The special needs population is underrepresented in the community.
- There is a demand on emergency management services, but not enough funding. Also, people more quickly call 911. On the fire side, there are dwindling volunteers. About ten years ago, state legislation tried to address this issue with Senate Resolution (SR) 60, which was a 16-point initiative that included some recommendations but no funding. There is a new initiative (SR 6) to review the recommendations made in the resolution and to see what needs to be done to help first responders.
- The reason volunteers are being lost is because of economic development. There is no time for volunteerism. Historically, people worked in the towns they live in, but not anymore. Vacant buildings should be used for small businesses, but they are too small for agencies to consider.
- The land use map does not matter to first responders. There are emergency service needs everywhere, even in rural areas where there are unmet needs. Funding is an issue for many communities.
- In 5-10 years, we will need to address the transition of generations. Millennials look at things differently than older people.
- There is increasing participation in fire training classes, but not as much as before.
- Emergency management services went from all volunteer to almost none. Regulations have made volunteerism all but gone.
- There are three landfill facilities in the region. There is a lot of resistance to solid waste facilities. Also, the public doesn't think recycling should have a cost, but there is labor, equipment and other costs. Education is needed on why it's important to recycle.
- There are regulations to reduce waste going to landfills, but municipalities all have different ways they handle waste. It is challenging to understand it.
- Counties are required to have a Solid Waste Plan that can address the ten-year needs of the region. The plan needs to address where the waste can be taken. Some rural areas still allow open burning, which the State doesn't allow.



- It is a challenge to provide library service to the region. People just assume they are available at no cost. Also, there is an increase in individuals that fall through the cracks that end up at libraries.
- Mental health is a huge issue. There is a lack of facilities in the area. Most people are sent to Philadelphia or Wilkes-Barre area. There are more demands on emergency management services. About 30% of calls are related to mental health. Opioid abuse is rapidly growing.
- Parkland School District is seeing a lot of growth in addiction over the past year to year and a half.
- All the fire, police and emergency management buildings cost money. They should be consolidated to save money.
- Community centers are being closed down to save on costs. They are safe places for kids to go and have something to do. They help prevent crime and drug use. They are not just gyms. They also help create a stronger nuclear family. In west end Allentown, their community center was closed down about five years ago. The Jewish Community Center accepts all people, not just people of Jewish faith. They are trying to let the community know this. Their after school program is getting stronger.
- Staff asked what other preventive activities are taking place in the area. The response was that a small few entities work on prevention, most work on response.
- Transportation for seniors and the disabled of any age who don't drive is a big problem. These groups are the most vulnerable of society. Also, there are many senior centers in both counties.
- Cooperation among emergency providers throughout the region has not changed much over the past 30-40 years. Everybody likes to have their own area. Salisbury Township tries to pull all the police, fire and emergency management providers together, providing better protection for its residents. There is a lack of fire volunteers in the Township.
- Integrating all emergency providers would save money and lives.
- Agreements among the fire providers is prevalent throughout the region. Most have fire mutual aid agreements.
- A plan is needed to address the lack of volunteers.
- PA legislators in 2004 chose not to adopt the International Fire Code. Each municipality would have to adopt it.
- A comment was made that we are doing poorly in everything else. We do not have a vision as a region. For example, we have significant needs for recreational facilities, however, no one is willing to address this. If the counties don't, municipalities cannot afford it.
- The same thought goes for libraries. No one wants to spend any money if it is not in their municipality.



- Local power greatly reduces the effect of emergency providers. It is their own little fiefdom. Regional management teams have better results. A comprehensive management plan is needed for emergency service providers.
- Nobody is in charge of public safety in the Lehigh Valley. Bucks County has a model that works well.
- The region is lacking in facilities that address food access. Small markets are dwindling. The goal is for corner stores to provide more healthy options by bringing in locally grown food. Coordination is needed among the 62 municipalities. Healthy aging is also an issue.
- Lower Macungie Library is part of the Allentown School District. There was no coordination before among the libraries. Now, they joined and formed a consortium to serve the whole district. All 12 libraries have access to the same services. They are trying to serve everyone in the community. They also have AARP coming in to provide tax service to the elderly.
- One comment was that regionalization was a common theme of this discussion. An example of that was the Cetronia/Lehigh County Joint Operations Center that covers nine municipalities. They worked with the county on a 99-year land lease, and in exchange, they house county assets. They use the space 24/7—it is used as a training center, for joint meetings, etc. They got help with funding.
- We need the right leaders to make things happen. The counties must support efforts. We need a plan to show where facilities are needed.
- A comment was made about the lack of east/west transportation routes. We only have two now, but they are not great. The American Parkway has helped the situation somewhat. We need a similar road network north of Route 22. Staff noted that a transportation strategy lab is scheduled in June.
- Staff asked the group where we go from here. Responses included:
 - Pulling in the younger generation—what kind of environment do they want to live in
 - We need visionary people
 - Incentivize departments that consolidate; defragment the community effort.
 - Land developments get approved by municipalities, but there is nothing in zoning ordinances that require fire stations to serve these new land developments. There needs to be a connection.
- The comment was made that there is no coordination among emergency management services and municipalities. It is not in municipal ordinances. Alburdis commented that they work well with their emergency providers.
- Develop ideas first. Take the discussion of money off of the table before talking about how to afford them.
- Staff asked the group if we need more discussion on emergency management services. The group responded yes, it could strongly influence elected officials.



COMMUNITY UTILITIES

February 7, 2017

- Regarding the general land use map, a question was asked about what considerations are given to municipalities if there are inconsistencies in land use between the municipal and county comprehensive plans. Staff responded that we will have conversations with the municipalities as we update the plan.
- A question was asked about how municipalities can meet the goal of providing for all types of development while also being consistent with the county comprehensive plan. Staff responded that they can't meet both goals. However, municipalities can plan with other municipalities through a multimunicipal planning process. As long as all land use types are provided for within the multimunicipal planning area, an individual municipality does not have to provide for each land use type.
- Easton Suburban Water Authority representative said that they are seeing a lot of growth recently, especially apartments and medical-related developments. A new hospital is being planned in Lower Nazareth over the next five years. He said providing water is not the problem—traffic is becoming a problem.
- PPL said they are investing heavily in infrastructure to ensure more reliability. There are no issues with providing enough power. Lead time for providing for development is sufficient.
- Lower Saucon Authority said there is little growth in the township (growth is not encouraged). The challenge is being able to fund system upgrades.
- Lehigh County Authority said the public perception is that utilities drive growth. He said it is the municipalities that allow for the growth. They have adequate water supply to serve their customers—they purchase 7 mgd from Allentown. As far as sewers, LCA is responding to the EPA Administrative Order to reduce sewer overflows. Capacity is not limiting growth right now. Their industrial wastewater treatment plant capacity is limited.
- It is also the public perception that LCA is drying up the Little Lehigh Creek, however, there is no direct connection. It is a complicated water system.
- The City of Bethlehem has adequate capacity for water, but sewer capacity is coming up as an issue. The most recent Act 537 plan addresses that. Over the next few decades, the challenge will be how to address and fund replacement of aging infrastructure. The water piping in the city has a median age of 50 years.
- Regarding stormwater, the comments included: regulations keep getting tougher, reporting is more complicated. There has been discussion among the communities about forming a stormwater authority. Bethlehem Township and the cities of Allentown and Bethlehem are considering it.



- PPL is also investing heavily on security against cyberattacks. They have redundancy in their lines in the event of problems. They have to comply with many agencies.
- Regarding emergency connections, the City of Bethlehem has a small amount of capability. Their interconnections are not robust. There are 3 connections between Allentown and Bethlehem, newest connection was installed in 2004/2005 timeframe. The two older valves have not been opened since the 1960s. There may be some need to pay more attention to that Lehigh Valley-wide.
- The LCA/Allentown system is very redundant. The city has four water sources, plus all the LCA wells. They have 52 mg of finished water storage.
- Staff asked about the requirements for contingencies. A water system must have an emergency response plan, but there is no requirement to have backup capabilities. There are proposed updates to PA Chapter 109. One part has to do with requiring interconnections. The proposed regulations should be posted in the Federal Register this month.
- LCA reiterated that it is difficult to overcome the perception of LCA pushing for development. Public education is needed.
- The question was asked about whether multimunicipal zoning can be enacted. Staff responded that joint zoning is possible, but typically, multimunicipal planning won't translate into joint zoning. Each municipality would typically create its own zoning ordinance to accomplish the land use goals of the multimunicipal comprehensive plan.
- The question was asked about whether utilities want the growth. LCA responded that they want the revenue. They have the capacity. The City of Bethlehem said growth is great, but big warehouses are not what they want. All that infrastructure is put in place for minimal use. Easton Suburban said yes. They have tapping fees, which they put back into their system.
- DEP said that investor-owned systems might look at that question differently since they are responsible to their investors. The price of water versus that of the public sector is significantly different. For example, \$5 per thousand gallons for public system water versus \$12-17 per thousand gallons for private system water.
- The City of Bethlehem has water customers outside of the city and therefore they have to deal with the PUC, which is a big challenge. They have to apply to the PUC to raise rates. Working with the other municipalities works well.
- Lower Saucon Authority agrees that working with the PUC is a challenge. The PUC required changes to their meters, but the Authority received no return on the money spent.
- The comment was made that some issues could be resolved by regionalization. It provides economies of scale, however, municipalities tend to be parochial.
- Lower Saucon said they had completed a 2006 study that looked at regionalization. From a cost perspective, the best option was to continue as their own system. They will probably revisit that in the future.



- Whitehall Township Authority thought it would be worthwhile to consider regionalization. The cost of replacement system infrastructure is astronomical. When growth stagnates, there is no one to pay for upgrades. And regulations will continue to get stricter. Costs will drive regionalization.
- Wind Gap Authority said there is a lot of growth coming up Route 33. There are requests for development in Bushkill Township off of Route 512, but the township doesn't have an Act 537 plan. Also, the Authority needs to upgrade/replace old clay pipes. They could use more development to help pay for the costs.
- Staff commented that PennVEST representatives came to the area recently to discuss funding opportunities. However, no one is applying for funding. The group responded that the process is too burdensome. Interest rates are too low; it is cheaper to purchase bonds. PennVEST funding is geared toward lower income municipalities.
- Staff asked how municipalities are doing with Act 537 planning. The LVPC uses this information for regional planning. LCA said LCA/Allentown Act 537 planning was put on hold by DEP until the EPA order is resolved. The DEP website provides the age of municipal plans. Many are pretty old. The City of Allentown Master Sewer Plan from the 1970s still shows the same needs. Most municipalities overbuilt treatment plant capacity years ago, plus water usage has gone way down. Also, planning modules are used for smaller developments.
- Pennsylvania will not pay for 537 Plans which is a major cost undertaking.
- Sewer overflows will never stop, but must be kept to a minimum. EPA allows for none, but they have regulatory discretion. It is very expensive to stop it.
- DEP said that the 50% cost reimbursement they used to provide for completed Act 537 plans is pretty much gone. The Commonwealth Finance Authority offers funding for plans, but not many take advantage of it. The City of Bethlehem said they were put on a list to receive reimbursement from DEP, but are not sure if they will ever receive the funding.
- Municipalities are required to conduct Act 537 planning, but not having an updated Act 537 plan is not holding anyone back as they have been utilizing "modules" to update the existing plans.
- Comments were made in regard to Sewer Capacity Assurance & Rehabilitation Program (SCARP), which must be done before drafting a new 537 plan for the LCA service area.
- Other topics of discussion included expansion and maintenance of utilities and their impacts on streets, and asset management planning for aging infrastructure. LCA is required by their lease agreement with Allentown to have an asset management plan.
- The public takes service for granted. Public education is needed. LCA has a website and they send brochures on conserving water.
- Lower Saucon has more of a presence on social media, which reaches younger clients.



- City of Bethlehem has a website, and, in the event of a problem, they have a rapid notification program (Nixle) that can be used for getting other information out quickly.
- PPL uses twitter and Facebook. They constantly promote their outage maps, energy efficiency and provide community presentations.
- “Super Storm Sandy” of 2012 changed the emergency preparedness of all utilities. Utilities are now more proactive than reactive in regard to the network of utilities during storms and other outage situations.
- What has to be replaced over the next 30-40 years and the cost of doing it is going to be a challenge. Nobody thinks about utilities. Sewer and water is a quiet industry. It doesn’t really stand out. It is taken for granted that service will be there when needed.
- The Lehigh Valley Regional Partnership involves underground utilities. There are partnerships throughout the state. It provides a forum for utilities and municipalities to get together and discuss upcoming projects. Knowing what projects are upcoming cuts down on costs of excavation of roads. With a new program—Coordinate PA—they are trying to get information from all the regional partnerships and put it in one place. The partnership meetings are posted on their website. Training classes are offered throughout the state. There is a big push for coordination throughout the nation. Also, there is proposed legislation (H.B. 284) to put PA One Call under the jurisdiction of the PUC to ensure that excavation work is done in a way that protects the underground infrastructure and citizens of the state.



ENVIRONMENT

January 25, 2017

- 576Aren't there a group of municipalities in southwest Lehigh County doing a comp plan? Will this plan be consistent?
 - How do changes get made to the Municipalities Planning Code?
 - Is there any follow-up to see how the comp plan is used?
 - Timeline
 - Time horizon
 - Another strategy is ag preservation
 - A lot of work has been done to implement the comp plan, has been the guide for the conservancy. Not just enough to protect, but need to connect, network and corridors, benefit for wildlife and people.
-
- Emphasize that the resources do not stop at municipal or county borders
 - On the Kittatinny Ridge, a connectivity analysis was done to prioritize parcels. The Nature Conservancy is working with conservancies to reach out to landowners.
 - Conservancy prioritizing – parcel-based analysis, protect the last great places in the valley, the critical natural areas, use GIS and rank parcels based on different attributes.
 - Historically in Pennsylvania, much of the state forest and park lands were devastated lands, state was forward thinking when they bought those lands and now they are high quality. Look at areas that are not necessarily pristine now but could be in the future, fix what we've messed up.
 - Group of scientists, including E.O. Wilson, if we want the planet to thrive and save biodiversity, have to save half for nature and half for us, thinking about that goal can help guide us a little better and a great goal to strive for, ideal that makes up for a lot of the negativity you deal with in environmental issues
 - Add a goal of restoration in the plan and a goal of saying how much we want to preserve, if you throw farmland in with that, it might be doable
 - Why not have green roofs in the urban areas, also land recycling program (staff)
 - Lehigh Valley is going remain attractive to development, these plans are incorporating restorative practices



- Management of the lands—how do you turn it back into native plants? greenways, large and small scale, when you have development, have them incorporate green areas
- In all development, recommend incorporating green space
- We create best practices for businesses about wildlife, create an incentive, regional certification program i.e. Lehigh Valley sustainability? Can be used at big warehouses and small businesses, need to offer the standards and a branded certification, here are the grants you apply to implement these, package it
- Similar to LEED certification? A little more nuanced, flexible to fit different businesses, provides positive incentive
- PSU Extension has an environmentally farm program, get inspected and sign
- Does your program work for retrofitting? New development—we already have requirements that are in place. Yes, it can work at existing sites. Our goal is making changes on the ground.
- When the Lehigh Valley Planning Commission (LVPC) gets an application to review, can they comment on those things?—Do not know if we have historically, but this is a brand new plan. There are Municipal Planning Code requirements, but comments can be related to what is in the comp plan.
- Is a municipality required to follow the comp plan?—No.
- Most visitors come from major metro areas, people appreciate green space within close proximity to natural areas.
- Viewsheds—we have lost a significant number of viewsheds because of the development, if there is a way to preserve them through plantings or well-organized development.
- Clean air and water are important things, a significant number of visitors that come for fishing and water recreation
- A lot of great work has been done with agricultural and natural area protection. How do people in the suburban area get that experience with green space and natural areas?
- When you plan the cities, think about the manner you do urban planning, more density, smarter parking
- If you do that in the cities, you can reach goals with areas outside the cities.
- But if there is an opportunity to purchase lands that are built-up next to streams; maybe a little more difficult in those areas, but look for opportunities



- Journey to a destination and what you see is also important
- Suburban development in the Lehigh Valley—try and get people to landscape for nature, largest crop we grow in United States is grass, homeowners use more pesticides than farmers do, get emphasis away from grass
- We are doing that in Lower Saucon, people question those practices in parks
- Educate residents, these are the right things to do for the environment
- Residents think it will devalue their homes
- Municipalities have to change their ordinances to allow nature in yards (staff)
- Have developers plant native trees
- Appendix with list of vegetation that is ok
- Lower Saucon has had some developers that ask if their list of vegetation is ok
- Have to have the wherewithal to disappoint developers, there's a correct way and an incorrect way of doing things
- About 7 years ago, there was a long emotional debate about riparian buffers, developers did not want riparian buffers at all. Why can't the Lehigh Valley have a higher standard?
- The Lehigh Valley Economic Development Corporation has met with the municipal managers, and these ordinances depend on the municipality.
- In the northwestern part of the state, they are begging for development.
- Delaware River Basin Conservation Act, federal, no funding currently – mirrored off the Chesapeake Bay regulations, passed end of 2016, more cooperative efforts in the watershed
- Try to find the hook for municipalities—saves time, less expensive, healthier.
- Convergence of the Return On Environment (ROE), tied with the comp plan, environment and economic perspectives
- Prepare the community to put forward resources for comprehensive open space areas
- Fully engaging the municipalities in any of this work, some do not understand, put out the message that this is bigger than just their municipality, municipal regulations is where the rubber hits the road, make sure how these municipalities can fund these initiatives, all municipalities should have an open space program, open space funding can be used for maintenance, not just acquisition
- Special exceptions and variances in regulations – depends how the municipalities allow waivers and variances, need to stand by that



- Need incentives to not develop those areas, give relief in density (conservation by design)
- Allentown – do not know if the city has the knowledge to deal with environmental issues, why is green infrastructure not discussed, can take the finished plan to the city and they will not follow thru
- What are we missing? (staff)
- properties in gray area worthy of protecting, e.g. green pond development, public interest, Lower Macungie’s Shepherd Hills Golf Course
- Residents interested in protecting their back yard
- Riparian corridors – rebuild where they have been destroyed
- Are there key destinations where the viewshed can be saved?
- A lot of biodiversity in the gray that are not displayed, species locations not shown, there are other sources for species locations
- LVPC now has a tree cover dataset that can be used (staff)
- Let’s not disregard the gray area
- Will this effort include making these connections using mapping?
- ROE generated a lot of facts including the natural benefits, and now there is an economic aspect, also health benefits
- Did the ROE go out to all 62 municipalities?
- Planning commissions are elected and may not be very educated about these issues and topics.
- Hard part is getting them to listen, create a vision for the municipalities, keep it simple, show them visually, broad brush – Atlantic flyway impacts
- If you can bring this to the municipalities – the long-term maintenance of infrastructure, e.g. cost of road maintenance, operating expenses, they do not want to raise taxes, how can we map this out
- Health – not just physical, has positive impacts on mental health, Rx program for doctors to refer patients, gets the residents more informed
- Cannot be onerous to implement
- Connect people with the environment, stewardship, intersection between the environment and health
- Lehigh Valley Greenways Conservation Landscape – one of seven conservation landscapes in Pennsylvania, run by the Pennsylvania Department of Conservation and Natural Resources, the Delaware & Lehigh National Heritage Corridor is the lead, public/private partnership, since 2004, working on four goals



together: land conservation and restoration, outdoor recreation and trail connections, community revitalization (mostly green infrastructure), and education; have about 3 meetings/year and other events

- Bring messages together from the environmental groups into a single message (staff)
- Identify that environmental theme for the region, too many complicated messages, the environment is the central theme
- Need to push message to municipalities (staff)
- What the Environmental Advisory Councils are doing is different depending on the municipality, some want to do more
- Within municipalities, the one advisory board that gets respect is the planning commissions, educate them, they are the core groups that need to be brought on-board with this
- Conservation districts meet with developers, green space is not talked about much, trend is talking less about it, infiltration wells starting to be used
- Biggest thing is going to be education, especially the municipalities, have not been able to get the Nazareth Area Council of Governments' municipalities to implement what they said they were going to implement, get them engaged
- What are the mechanisms for adoption?—County level only
- Energy topic to be covered?—Yes, along with climate change
- Any place for a recommendation for a bi-county health department, that is a big hole, large metro area, cities have health bureau and they will not go past their boundaries, State Act 315, was tried but did not work, municipalities have no guidance, may need to come from county elected officials
- Recommendation for wildlife management plans

WATER

January 25, 2017

- Way to show public what is preserved so far, and then showing what still needs to be done, how far are we



- Try to assess what properties need to be protected, that have high value, targeting floodplains, large areas of open space
- Working on Monocacy Creek watershed plan right now (staff)
- From water supplier standpoint, preserving land that provides water, whether groundwater or surface waters, City of Beth gets some of their water from Carbon and Monroe counties, water filtration plant in Lehigh Township, have 23,000 acres preserved with The Nature Conservancy
- Lehigh County Authority – very dynamic set of water supply sources, balance based on need, protection through easements is not possible, they have no teeth regarding source water protection, looking diff at recharge areas b/c of drought
- Position on injection wells? Lehigh County Authority typically writes letter to muni on development, groundwater recharge issue – how much groundwater recharge are we getting with all the development in Lehigh County
- Delaware River Basin Commission – metric, water availability analysis, look at hydrology drought of record, ½ through pilot, trying to answer that question, is there enough water, 7Q10 – stream statistic, low flow condition, commission allocates water for all types of users over a review threshold and looks at these in the analysis, water withdrawals south of Lehigh Gap, spreadsheet based model, goal is to look at what is happening today, 2030 and 2060
- State water plan in 2006 - critical water planning areas. Little Lehigh on watch list for critical water planning area.
- Do we have all the data on water withdrawals? What is the criteria for deciding what is enough? Should have those criteria in the updated state water plan (staff)
- Sometimes we have too much water
- Flooding – emergency management, climate might be changing over time, incidents more common
- Flood management districts – 16 watersheds in the 2 counties, stormwater management plan, every 5 years, deal with flooding and water quality, areas to study watershed hydrologically not really flood districts (staff)
- How often do ordinances get adopted like the stormwater ones were?—state required municipalities to adopt, which you don't see for other ordinances and state can withhold any funding for a muni that has not complied. Injection wells not really addressed in stormwater plans.
- Any flaws in the ordinance that you would change?
- The Lehigh County Authority says that if you build you can impact water for the municipality, municipalities won't want to give up their ability to control their land use that may impact other municipalities



- Conservation districts hear that they are an impediment to progress, emergency management should be notified of injection wells, no chance of treatment, should have turn-off valves, need permit from EPA
- Do we know the locations of all these wells? They are supposed to give the latitude/longitude for locations.
- Never used to recommend putting surface waters into groundwater
- Injection well is a registration process not an approval process (staff)
- Controls on these set-ups are minimal
- Repetitive loss mapping, kind of things that can be done with properties that continually are impacted
- Calculation can be done and owner may be able to apply for funding, long drawn-out process
- If an area has a lot of rep loss, do new dev that keep going in
- Might be interest in buy-out, go thru all the paperwork, becomes an issue when the owner thinks their property is worth X dollars, can't force owner to sell
- Floodplain ordinances evaluation – are communities complying, any evaluation if ordinances go past federal requirements
- New Jersey has higher requirements
- Lehigh County floodplains mapping will be updated in next 3-4 years
- From the Pennsylvania Department of Transportation's perspective, the amount of land we buy for stormwater facilities—why can't the municipalities require more available land for infiltration
- Wellhead protection areas – have municipalities done any zoning to protect? Do have wellhead protection zones, Lehigh County Authority process is to comment on development, zones dependent on several factors, wells are located in already developed areas, there is a lot of overlapping of zones
- Zoning overlay – source water protection in Wilmington, even though you don't own the land can do things to protect (e.g. spill prevention)
- These could be areas within the gray area that should be protected
- Hard to get municipalities to adopt regulations, political will is not there (staff)
- Management activities can still be put in place in wellhead protection zones even though already developed
- Lehigh County Authority is doing some age dating to determine how old the water is coming out of the springs, spring recharge area is probably all of Lehigh County, an injection well in Harrisburg may affect Schantz Spring
- Recharge is poorly understood, understanding how this complex system works
- Hard to do a water budget when stream water disappears into groundwater



- USGS studied Schantz Spring, local land area is not there to support that kind of spring
- Also want to get meters on the springs to measure what's not being used, they do know what they use
- Crystal Spring is under a parking lot, doesn't show any impact from drought
- Hercules Cement can turn off Bushkill Creek, other creeks have been turned off (e.g. zinc mine), portions of creek are lined to prevent filling of quarry
- Some streams just travel underground even under normal conditions
- The companies do put ice-cold water into the streams, so if they wouldn't, it would be much worse
- After zinc mine closed, the Saucon Creek came back
- From a user standpoint, how do we allow them to shut off a stream, how do we plan for these things
- If it was a new project today, would not be allowed
- Stormwater – constantly changing how nature would handle, all run-off, then run-off to streams slowly, then infiltration (staff)
- Need new standards on how to evaluate water availability, data changes over time, limestone geology is complicated
- Surface water and riparian buffers, a lot of areas in urban areas that have lost land for riparian buffers, recommend riparian buffers for water quality, need recommendations on where they should be restored
- Water for habitat, Wildlands Conservancy has done a rudimentary assessment using aerials and land cover, but want to update that with the University of Vermont's 1m resolution data, Pennsylvania Department of Conservation and Natural Resources has a riparian buffer program – has different levels of buffering (e.g. using an orchard at the outer edge)
- Document changes after restoration