The items listed below are for consideration and discussion; they're not final recommendations. The intent is for them to be vetted by stakeholders, municipalities and the public to identify the actions that will end up in the region's Climate Action and Adaptation Plan (CAAP).

TRANSPORTATION 10/16/20

- *20% of the Centre Region's GHG emissions are transportation related*
- *Co-Benefits: reduced traffic congestion, reduced future infrastructure costs, reduced sound pollution, creation of more green space, improved health, social equity*
- ***Projected Goal**: Replace 25% of the current vehicles with electric vehicles and double walk, cycle, carpool and transit modes*

1. Encourage driving cleaner, more efficient vehicles and traffic operations

A.1 Create regional strategy to expand electric vehicle (EV) fleets and charging infrastructure
- Adopt simple and fast permitting procedures for EV charging infrastructure, including DC fast charging.
- Government entities take the lead to integrate EVs into their fleets
- Identify and map a plan for public EV infrastructure growth (where workplaces have a demand, WPennPower involved to check loads, residential areas to support guests)
- Incentives for personal electric vehicles - charging accessibility and parking availability
- Consider maintenance
- Building data collection element to planning and projections

B.1 Explore opportunities for heavy duty vehicles to use renewable natural gas (RNG) or electric
- Support UAJA's research to convert sewage into renewable natural gas through anaerobic digestion.
- Support SCASD and CATA examining electric school bus and transit options
- Investigate opportunity to add food waste for anaerobic digestion.

C.1 Provide information and educate community about electric and hybrid vehicles
- Identify and promote available incentive programs
- Understand the life cycle analysis (mining for battery materials) for EVs
- Ford-150 ANG bi-fuel coming (absorbed natural gas)

D.1 Follow the International Code Council (ICC) building standards that support "EV capable" infrastructure in the 2021 International Codes, which are

expected to be released in October 2020. The new voluntary guidelines call for installing panels, outlets, and conduits capable of charging at least one full-size EV in a single-family garage overnight. Multi-family buildings will need two spots. PA generally has a 4-year lag for adoption of new ICC codes into their building codes.

- Can we pass ordinance requiring new buildings are built with EV readiness?

E.1 Collaborate with West Penn Power to make sure they will have the infrastructure to meet the increasing demand for commercial and personal vehicles.

F.1 Encourage West Penn Power / PUC to adopt EV charging rate designs.

G.1 Examine potential for clean vehicle car sharing, and how best to provide community support

H.1 Examine smart car and autonomous vehicle (AV) technologies to prepare for how they will impact evolving transportation systems and our community

- Systems for automated parking

I.1 Implement approaches for promoting and enforcing anti-idling

J.1 Replace all traffic lights and streetlights to LEDs

K.1 When implementing LED street lighting, consider integrated EV charging if next to paring and/or charging for electric micro mobility

L.1 Investigate the use of intelligent traffic lights, which are equipped with sensors and wireless communication capabilities.

M.1 Seek signal to roundabout conversions

N.1 Establish a process to collect accurate, local refrigerant data (vehicle usage) in order to include in the next GHG inventory and develop strategies for refrigerant loss reductions.

2. Reduce the trips with one driver.

A.2 Support and encourage increase of public transit

- Expand employer partnerships with CATA to offer discount bus pass to promote increased ridership – Penn State RidePass model
- Encourage combo of bus pass plus a limited parking pass (X times per month) that may be more palatable – Penn State RidePass
- Consider different rate structure for in downtown State College Borough
- Continue to improve bus station shelter amenities with CATA that reduce the impact of weather on rider comfort and usability.
- Campaign to promote positive dignified culture around transit
- Encourage governments and businesses to offer the federal commuter tax benefit to their employees for transit use. (Allows employees to pay for

transit passes using pre-tax earnings to save money.) Qualified transportation Fringe Benefits

- Study and explore Bus Rapid Transit within CATA service area (LRTP item, no funding, no scope)
- Give dedicated space and signal prioritization to public transport and make their travel times more attractive than the one for vehicles. (dated technology)

B.2 Support and encourage increase in biking

- Implement recommendations to achieve the next level of certification as a Bicycle Friendly Community(BFC). Submit for BFC resignation – State College -Centre Region
- Increase number of Bicycle Friendly Businesses certified and recognized
  - COG apply for Bicycle Friendly Businesses BFB certification
  - Encourage participation with other municipal and local government entities
  - MMNC has bronze BFB, SCB has silver BFB (designation in October)
  - Encourage and promote with other businesses and non-profits
- Continue and expand regional bike education and encouragement activities
- Continue to increase bike infrastructure in the Centre Region
  - Support increase use of separated bike lanes
  - Increase connectivity of bike facilities
- Build a youth cycling culture
- Safe Routes to School program – involvement with SCASD and all other k-12 schools

C.2 Support and encourage increase in walking

- Apply for Pedestrian Friendly Community certification (needs to be on a municipal basis)
- Increase connectivity of pedestrian facilities
- Continue and expand regional walking education and encouragement activities
  i. Centre Region WalkWorks Program (PA Dept of Health)
- Adopt a regional Active transportation plan

D.2 Support and encourage increases in carpooling (decrease single occupancy vehicles)

- Encourage Telecommuting options - hybrid
- Study commuter patterns from outside the region to identify opportunities
- Increase park and ride options

- Develop partnerships to support commuter trip reduction programs and work from home policies
- Support micro mobility: normalize the use of e-bikes and make it more accessible across users
- Explore strategies for shared mobility and shared micro-mobility
- Provide incentives for employer-sponsored bicycle programs and other sustainable commuting practices
- Reduce the need for trips
- Live where you work: lower interest mortgages if you locate within a certain distance from work; workplace incentives for living closer and/or using public transit
- Work with businesses to promote new employees consider a mode shift (switching jobs is a good time to start a new routine)

E.2 Support SCASD to reduce single occupancy commuters, with a focus on students

- Reduce student drop off rates and encourage school bus ridership
- Offer CATA pass for high school students of driving age
- Encourage high school students to carpool, bike and bus

F.2 Support projects that increase the safety of multiple modes of transportation (LRTP)

G.2 Determine feasibility of data acquisition and management to measure outcomes

- Partner with businesses to collect representative local sampling – GIS data for "Trip Length Frequency" which measures the number/mode of trips and their lengths (distance or time) and is widely used in travel modeling.
- Develop data to understand the preferences of travelers in the area – survey

3. Align land use and housing with transportation infrastructure to increase access to walking, biking and public transit.

A.3 Study best practices for parking, neighborhood designs

B.3 Develop a regional complete streets policy and encourage the adoption of municipal complete streets in zoning and planning ordinances (land development and subdivision ordinance) and make the associated changes needed in municipal code. (SCB adopted a complete streets ordinance) Update the, within the parcel only

- Complete streets fee in lieu? possible in PA

- Create uniform street standards and street classifications that promote shared streets that incorporate infrastructure for people walking, biking, and riding mass transit
- Better linkages between equitable-oriented transit development - building affordable housing near transit access (not necessarily part of complete streets.

C.3 Develop a land use code with a "Pedestrian Places" component, which encourages the creation of walkable mixed-use areas that encourage walking, bicycling, and transit use.
- Support creation of a pedestrian master plan

D.3 Consider creating concepts of 10-minute neighborhoods and designing streets for kids

E.3 Incentivize/mandate bike parking in residential and commercial development in the region

F.3 Prioritize multi-modal development through investment and regulation

G.3 Consider land use codes that require/incentivize EV charging infrastructure at multifamily and commercial developments.

H.3 Involve CATA earlier in the land development process to help quantify benefits

I.3 Work with PennDOT on road diet strategies and include bike lanes and sidewalks (on wide roads which tend to have higher speeds).

J.3 Establish a parking management strategy
- Create parking management districts or zones
- Strategies can include shared parking, dynamic pricing, establishing maximum parking ratios, allowing offsite parking, or modifications to parking minimums.
- Consider a parking ordinance that supports a land use strategy that minimizes available parking in transit-oriented districts.
- Price on-street parking higher than off-street parking
- Make sure not going to have adverse impacts and increase emissions

K.3 Evaluate existing zoning and development codes for possible integration of LEED-ND and other green development standards
- LEED-ND combines energy efficient buildings with an energy efficient street pattern and urban form

4. Improve and build resilience into our transportation systems

A.4 Improve preparedness for increased frequency of extreme events by improving coordination between agencies and other stakeholders and by improving real-time monitoring of flooding, traffic, and other conditions.

B.4 Identify and invest in transportation programs and projects, including best management practices, that reduce surface runoff and protect water resources.