Draft Meeting Summary COG Climate Energy and Environment Policy Committee (CEEPC) November 20, 2013

Members and Alternates Present

Hon. Roger Berliner, Montgomery County, Chair Hon. Jonathan Way, City of Manassas Hon. Al Carr, Jr., Maryland House of Delegates Hon. Jay Fisette, Arlington County Hon. Del Pepper, City of Alexandria Hon. Konrad Herling, Greenbelt Hon. Ryan Spiegel, Gaithersburg Hon. Penelope Gross, Mason District Supervisor, Fairfax County Board of Supervisors Hon. Fred Schultz, City of Takoma Park Dr. Kambiz Agazi, Fairfax County Austina Casey, District of Columbia DOT Robert Grow, Greater Washington Board of Trade Caroline Petti, COG Air and Climate Public Advisory Committee Brendan Shane, District Department of the Environment (DDOE) Nicole Steele, Alliance to Save Energy Rachel Healy, Washington Metropolitan Area Transit Authority Mark Busciano, Casey Trees Kara Reeve, National Wildlife Federation

Others Present:

Laine Cidlowski, District of Columbia Office of Planning Nicole Rentz, Staff for Mary Cheh, DC Council Khoa Tran, City of Alexandria DEQ Hon. Mary Lehman, Prince George's County Dawn Hawkins-Nixon, Prince George's County Department of Environmental Resources Mitch Margolis, Coalition for Smarter Growth Tyler Grote, Coalition for Smarter Growth Tim Stevens, Sierra Club

Staff Present:

Stuart Freudberg, Senior Director, Environment, Public Safety, and Health, COG Joan Rohlfs, Director, Environmental Resources, COG DEP Amanda Campbell, COG DEP Jeff King, COG DEP Leah Boggs, COG DEP Maia Davis, COG DEP Isabel Ricker, COG DEP Ryan Hand, COG CPS Erin Morrow, COG DTP Paul DesJardin, COG CPS Monica Beyrouti, COG EO Matt Kroneberger, COG OPA

1. Call to Order/Introductions/Chair Remarks, Hon. Roger Berliner, Montgomery County

Chair Berliner made remarks expressing his sadness upon hearing about the death of Ron Kirby, COG's Senior Director of Transportation Planning, and honoring Ron's vision and leadership contributions to COG, transportation and the Washington region.

Chair Berliner announced to the committee the news of Joan Rohlfs' retirement as of January 1, and applauded her remarkable contributions to regional progress on a multitude of environmental issues, including recycling, climate change, clean energy and particularly her leadership in regional air quality planning.

2. A summary of IPCC's Fifth Assessment Report & What Cities Can Do to Solve Climate Change. Amanda Campbell, *COG DEP Staff*

Amanda Campbell, DEP staff reported on the latest report of the Intergovernmental Panel on Climate Change (IPCC), which was established in 1988 by the UN and World Meteorological Organization (WMO) to provide decision-makers with rigorous, balanced scientific information on climate change and its potential impacts. 195 member countries participate and thousands of scientists worldwide contribute to research and reports.

The IPCC's latest report, the Fifth Assessment "Climate Change 2013: the Physical Science Basis," was released in September 2013. A "<u>Summary for Policymakers</u>" accompanies the report. The previous round of reports (Fourth Assessment) was released in 2007. Over 800 scientists contributed to the report.

The World Resources Institute identified the following five key points:

- 1. Warming of the climate system is unequivocal. There is greater than 95% likelihood that human influence is the dominant cause of warming since 1950.
- 2. Many of the observed changes since the 1950s, including: atmospheric and ocean warming, diminished snow and ice, and sea level rise are unprecedented over decades to millennia. Many impacts are happening more quickly than previously predicted, except annual average air temperature. The last few decades have been the warmest three decades in the last 1,400 years, but show a slower rate of increase in air temperature. Scientists think this "pause" in warming may be due to the cycling of heat storage between the oceans, deep oceans, ice, land and atmosphere.
- 3. Climate change is causing more frequent and more intense weather events, including: heat waves, drought, tropical cyclones, heavy precipitation and high sea level.
- 4. The UN Framework Convention on Climate Change agreed that 2 degrees C of warming is the necessary maximum to prevent the most dangerous impacts. Business as usual will lead far beyond 2 degrees C of warming. At the current rate, the world will exhaust its "Carbon Budget" in 30 years.
- 5. To avoid more than 2 degrees C of warming, global emissions must fall to 50% below 1990 levels by 2050. COG's emissions reduction goals are roughly aligned: 80% below 2005 levels by 2050.

Ms. Campbell stressed that CEEPC's work to reduce CO2 emissions is important, both regionally and globally. Additionally, there are many ancillary benefits to climate solutions: energy independence, preserving rainforests, sustainability, green jobs, livable cities, renewable power, cleaner air and water, healthy children, etc.

The UN Climate Change Conference is underway in Warsaw, Poland (November 11-22, 2013). In Warsaw, policymakers intend to set a framework for an agreement at the conference in Paris in 2015. There are two more IPCC reports coming out this spring: one will detail specific climate impacts on agriculture, society and economies, the other will analyze emissions mitigation solutions.

Scientific American published an article called "<u>Can Cities Solve Climate Change?</u>" in October. Cities are high energy users and more than half of the world's population lives in cities, but they are also possibly a very effective scale for addressing climate change.

Cities are responsible for an estimate 2/3 of worldwide greenhouse gas emissions. This includes emissions from buildings, land use, transportation, solid waste, water utilities, and electricity— which are at least partially under city government control. However, per capita emissions are significantly lower in urban centers.

Cities may also be the right scale for action. They can respond faster to address climate impacts and emissions than national or international groups. Cities worldwide are growing by 65 million people annually, so action in cities will have a huge impact and there is an opportunity to make a difference.

Cities are making strides in addressing climate change. For example, cities can attract people and businesses with transit-oriented development, and mixed use urban design, incentivize housing diversity, provide transportation choices, promote efficient buildings, increase renewable energy, protect tree canopy, mitigate floods and capture rainwater.

More information can be found at:

- World Resources Institute: <u>5 Major Takeaways from the IPCC Report on Global Climate</u>
 <u>Change</u>
- Scientific American: <u>Can Cities Solve Climate Change?</u>
- The Economist: <u>The IPCC Climate-Change Report</u>
- IPCC Fifth Assessment Report <u>Climate Change 2013: The Physical Science Basis</u>
- IPCC Fifth Assessment Report <u>Summary for Policymakers</u>

DISCUSSION:

- Hon. Jonathan Way asked how other cities' climate plans compare to COG's. Joan Rohlfs commented that New York City has a very robust program and has devoted lot of resources to climate mitigation and adaptation. Chair Berliner remarked that many other communities around the country have aggressive climate plans, including Chicago, Seattle, Portland and Austin. COG staff will provide more information at a following CEEPC meeting.
- Kara Reeve commented that the IPCC report's urban section is a good source for more information about what cities are doing. COG is a bit different because it must focus on voluntary measures, whereas cities and municipalities can have binding measures. There is a big opportunity to increase results from COG's plans by encouraging COG jurisdictions to formally adopt or enforce policies. The National Wildlife Federation will be releasing a report on five major climate change challenges cities are facing and how to address them.
- Mark Busciano of Casey Trees commented that he would like to hear more about increasing green cover in cities. Despite their efficiency, cities have a high proportion of impervious surfaces and do not have a lot of vegetation. A recent study by the US Forest Service found that tree canopy in cities is decreasing. It has also been found that cost per tree increases as

the percentage of impervious surface increases. DC is 41% impervious surface area. There are well documented social and psychological benefits from trees. CEEPC should look into prioritizing tree canopy for the region, not just DC, and ensure that we preserve tree canopy and green spaces in planning decisions. Ms. Campbell noted that trees mitigate emissions so this is an important piece of climate mitigation in cities.

3. Transportation/Land Use Sustainability: Defining sustainable development and the linkage to the climate change challenge. Stewart Schwartz, *Coalition for Smarter Growth*

Mr. Schwartz introduced a new staff member at the Coalition for Smarter Growth (CSG), Kelly Blynn, who serves as the Next Generation of Transit Campaign Manager. Ms. Blynn helped start the climate change advocacy campaign at 350.org, where she gained experience with bus rapid transit and other smart growth solutions in Mexico and Ecuador. Chair Berliner noted that yesterday (November 19), Montgomery County Council voted unanimously to adopt Bus Rapid Transit (BRT). Lanes will be added in some places and repurposed elsewhere.

Mr. Schwartz gave a presentation entitled "Blueprint for a Better Region." In 2011, a study by Texas Transportation Institute found that DC was #1 in traffic congestion nationwide. There has been a lot of effort and significant progress to reduce congestion in the last few years. Mr. Schwartz showed images of traffic on the Beltway in 1968, 2000 and 2013 to illustrate this progress.

The region has over \$30 billion in proposed new highways. However, the new plans are not expected to have much effect on reducing traffic. The Springfield Interchange (I-95/I-395/I-495) is now complete. The project included 50 bridges at a cost of \$800 million, (plus unknown maintenance costs), but simply moved bottlenecks. The 1997 Federal Study on Maryland's Intercounty Connector (ICC), said: "None of the ICC alternatives will have a substantial impact on the levels of service [congestion] experienced by motorists on the Capital Beltway, I-270 or I-95 within the Study Area."

Mr. Schwartz attributes the congestion problem to sprawl. Zoning rules led the region to spread farther and farther away from the city center. Single-use office parks became popular. These require thousands of parking spots and are not pedestrian-friendly.

- Land use impacts: In 2000, 74% of new development was on farm and forest land. Under business as usual trends, by 2030 800,000 new acres of land will be developed, much in rural areas.
- Jobs-housing imbalance: Prince George's County has the 6th longest commute in country, above 40 minutes on average. Metro trains and highway lanes on the "reverse commute" are nearly empty.
- Economic impacts: Commuting accounts for a large proportion of household budgets, particularly as gas prices rise. In 2002, gasoline cost \$1.10 per gallon; in 2007 it cost \$4.00 per gallon. According to AAA, it costs \$8,000 per year to own, operate, maintain, and insure a 4-door sedan driven 15,000 miles per year. Some blame unsustainable suburban and exurban sprawl for the recession: according to CEO's for Cities: "The gas price spike popped the housing bubble."

This also causes high greenhouse gas emissions: The US is less than 5% of world population, but uses 25% of the world's oil - 70% of it for transportation. The US accounts for half of global passenger vehicle emissions. There is a growing consensus that the U.S. must cut Greenhouse Gases 60-80% below 1990 levels by 2050. Transportation is about 1/3 of US CO2 emissions, and

transportation sector emissions are growing fastest. US VMT are growing faster than either population or number of vehicles. For more information see "<u>Growing Cooler: The Evidence on</u> <u>Urban Development and Climate Change</u>," by Ewing, et al.

There are three legs to transportation emissions: Vehicle Efficiency (mpg); Fuel Greenhouse Gas content (Fuel GHG) and Vehicle Miles Traveled (VMT). According to report "<u>A New Direction</u>" by U.S. PIRG, VMT are declining. Driving began to drop in 2008 due to downsizing empty nesters, millennials who are less inclined to drive or own a car, and increased use of public transit. Americans took nearly 10 percent more trips via public transportation in 2011 than in 2005. The nation also saw increases in commuting by bike and on foot.

The region's "Reality Check" Event in 2005 sought to provide housing and transit for an additional 2 million people and 1.6 million jobs by 2030. The initiative developed the Greater Washington 2050 report, which became Region Forward. Common principles emerged to guide sustainable development. Gallery Place is a good example of this effort: if built in a traditional suburban style, it would take up 1,300 acres.

Since 2005, smart growth has spread to other locations in the Washington region: U Street, Tenleytown, and Columbia Heights. Arlington has been very successful at making Metrorail a catalyst for redevelopment of the commercial spine. This has now become a model for Fairfax. The economic and fiscal results have been very encouraging: two TOD Corridors comprise 11% of the county's land area and 50% of property taxes, which funds services across Arlington.

City emissions are high, but per population they are much lower than suburbs. Compact cities have 25% fewer VMT. Due to demographic changes by 2025, 72% of households will not have children. Small-lot and multifamily buildings will be in highest demand, but large-lot single family homes have dominated residential real estate since 1970. This is creating a supply-demand imbalance in the housing market.

DC is growing but car use and ownership are dropping all across the region: 82.4% of DC households have one care or less. People are walking and biking more than ever. Areas that accommodate multiple transit options have been the most successful. Fairfax has now embraced TOD, Vienna and "Metro West" stations for example. At Tysons Corner, Fairfax is going to fill in 40 million square feet of paved areas, add vegetation and make the area a mixed-use, walkable community. The conservation community has embraced these developments because they have less environmental impact.

DC has a high concentration of LEED buildings. Green buildings work best, reduce emissions most and give developers the biggest return on investment when are located in accessible, mixed use areas. For example, Tower Companies has great green building policies but doesn't score well on VMT emissions because they are not sustainably located. Mr. Schwartz argues that we are at a crossroads with TOD: there is a need to provide transit to and from mixed use developments. This is an issue that COG could help with, by bringing stakeholders to the table and coming up with region-wide solutions.

DISCUSSION:

• Mr. Fisette asked whether outer counties have implemented mixed used and compact development. Manassas and Loudoun County are focusing on sustainable TOD, Frederick

County is looking into transit centers and walkable developments, and Prince George's County is pushing private developers to provide more mixed use centers.

- Hon. Ryan Spiegel of Gaithersburg commented that one area of difficulty has been parking ordinances. Gaithersburg wants to reduce the concrete fields but they need to make sure eliminating parking spots isn't underserving the community. Assistance from COG with the technical aspects, such as calculating parking need from a data driven perspective, would be very helpful on this issue. COG staff agreed that it was a good question and that DEP staff will look into providing assistance.
- Hon. Del Pepper, City of Alexandria inquired when the presentation was initially created, and whether it will be updated. She had been hoping to see bike lanes or the bike share program in the presentation. The presentation is originally from 2002 and will be updated.
- The WMATA's \$6 billion Strategic Investment Plan (the Momentum Plan) would be another thing to include. What role does this have in TOD and mixed-use, activity centered development? Several members suggested that CEEPC comment on the Metro momentum plan and requested that COG staff provide the committee with more information.

4. Panel: Is New Commercial Development Contributing to a More Sustainable Region? Moderator: Jeff King, *COG DEP Staff*

Panel: Henry Chapman, Vice Chairman, CBRE; Evan Goldman, Vice President for Development, Federal Realty; Kingsley McAdam, Sr. Project Manager, Buchanan Partners

Henry Chapman, Vice Chairman, CBRE:

CBRE is the world's largest real estate consulting firm. They represent users of office space and are not a developer themselves. CBRE frequently works with the Federal government and has a contract with GSA to do leasing nationwide.

Mr. Chapman believes green building became a big issue in the early 2000s. The establishment of LEED certification and the Federal government's adoption of green requirements were critical in driving the market.

- An Executive Order (EO) in 2006 required Federal government to lead the way in green buildings by stipulating green aspects that must be incorporated into leases for Federal buildings or space. This spurred developers to make these green changes, and in 2006-07 there was a new requirement that all new Federal buildings be LEED silver.
- Users at large have not been driving changes, although some state & local governments are

CBRE represents 80% of fortune 500 companies. They found that corporate clients will embrace green tendencies when there is a sponsor within the company, or when required by their mission statement. For example, a large telecom client changed their real estate RFP to include green requirements such as energy reporting and building audits due to a new mission statement on environmental principles.

Mr. Chapman said that cost is the biggest barrier to adoption. Green building is much more mainstream now; there is less reluctance and questioning of the benefits among clients.

- The payback period may be too long for some to see the advantage. To others, demonstrating utility bill savings over the lease term is very effective. Savings can be huge. Water and electricity usage do have an impact to the bottom line.
- Clients also see improvements in workforce productivity with green building principles. This is a big new goal and "buzzword" in the corporate world.

• Transportation options, such as bike parking and plug-in electric vehicle charging stations are popular with employees and common requests for CBRE clients.

For CBRE's Government clients, according to the new GSA lease requirements, any owner with Federal presence in the building needs to have an Energy Star rating of 75 or more. There are also requirements for many other green components, such as: EPA.gov scores that they have to meet, requirements for recycling during construction, etc. New buildings need to be LEED certified.

• GSA has also been a leader in teleworking. The private sector has followed this trend, it is now quite common. At CBRE employees share desks because they only have to come into office 2 days a week. The goal is to get to the point where the company occupies half as much space as before.

DISCUSSION:

Mr. King asked whether CBRE saw a large difference in green building demand between its Federal government and private sector clients. Mr. Chapman said that the main difference is that there are legislated minimum requirements for the government which must be met within 18 months of signing a lease. For the private sector it is more a factor of their company priorities and how much money they have. Mr. King noted that Prince Georges' County just passed a law requiring that new County buildings must look into options for hosting clean and renewable energy potential on site.

A question was asked about interest in the private sector for permeable pavement surfaces. Montgomery County doesn't allow permeable hard surfaces to be classified as "permeable" so it truly has to be green to count there. Chair Berliner responded that the County is working on the issue but there are concerns that pavement gets compacted with use and is therefore not permeable for very long.

Evan Goldman, Vice President for Development, Federal Realty Investment Trust:

Federal Realty Investment Trust (FRIT) is one of the largest commercial property owners in the White Flint area. White Flint is currently 60-70% paved area. FRIT moving more and more toward sustainable building and mixed use communities. Mr. Goldman noted that much of sustainability comes from location and proximity to other amenities.

The White Flint Partnership is a collaborative initiative between private sector, utility and government stakeholders working to develop the area. The White Flint development costs over \$600 million, 75% funded by the private sector. The biggest priority is transportation network improvement to make it more like an urban grid. They are also encouraging bikes a lot more - there will be 600 new bike racks and a Capitol Bike Share station.

Storm water is a big concern. 100% of storm water will be captured, 40% with environmental measures. There is also no tree cover; FRIT is now planting many trees and bushes. FRIT has emphasized the need to create activity and design elements to make people want to use the space. Parks, urban plazas, civic greens, urban parks and recreation loops are a big draw.

FRIT recently completed a carbon footprint analysis for EPA. Green spaces are very helpful for reducing emissions and provide health benefits. Kaiser Permanente has found that more walkable have lower rates of cancer and heart disease. AARP is working to encourage areas where seniors live to plan do that they can walk rather than have to drive.

Mr. Goldman stressed the need for pedestrian-oriented development. Examples include planning for 18 foot sidewalks, dedicated parking bays, and improved pedestrian safety road markings and lights to encourage nighttime walking. FRIT has also been working with the Fire Department to develop protocols and design plans that work for both pedestrians and emergency responders. This is one area, he said, that needs leadership and would be an opportunity for COG involvement.

The plan also includes a substantial amount of affordable housing. There is a 12.5% requirement for affordable housing in Montgomery County. This is a conversation that could be useful to have at the regional level – what is a reasonable minimum requirement, and how much is sustainable & affordable?

FRIT recently reached an agreement with Maryland to develop an area of Rockville Pike into a complete street/green street, which will fold into its mixed-use Pike & Rose project. They are also looking into a Bus Rapid Transit System. Federal centers, such as the White Flint Science Triangle, need to be connected. BRT and other transit options are needed east to west to help reduce commuters on the Beltway.

DISCUSSION:

Hon. Del Pepper asked if the White Flint plan made accommodations for electric vehicles. Mr. Goldman replied that, yes, every garage has two electric vehicle charging stations, as well as priority spaces for hybrid cars. FRIT is working with a charging company on a potential gas-station-style charging station for electric vehicles.

Kingsley McAdam, Sr. Project Manager, Buchanan Partners:

Buchanan struggled when they first tried green building in 2005-2006 with the Bowie Corporate Center. Their engineers didn't have the expertise yet. The building won several awards for environmentally friendly office space but it was not a successful investment because tenants were not very interested in the building or the green aspects.

The company and the market have come a long way. Technology and install prices have come down as green building becomes more common. Buchanan has traditionally done a lot of suburban office parks, but the company says "the office park is dead."

Mr. Benninghoff noted that at several of their current projects there wasn't an opportunity for mixed-use development, but Buchanan is incorporating a variety of uses into the development, including an elementary school, a playground, office and retail space, as well as residential buildings.

Buchanan is developing the Kingsley Building in Old Town Alexandria. The site is 3 blocks from river and is comprised of residences on top of a new Harris Teeter. Alexandria has had no new grocery stores since the 1960s. The Metro station is drawing development to Alexandria, but having the grocery store is allowing Buchanan to attain high density. The building will be LEED Silver, which required custom HVAC equipment to achieve this level.

- The site also has a high level of bike & pedestrian accessibility. There are preferred parking areas for hybrids, charging stations for electric vehicles, bike storage lockers and a bike repair shop in the garage. Buchanan is putting pedestrian count downs at cross walks.
- Strom water is a big concern. Many buildings in Old Town have leaks and pump the water into the street. The city's sewer system is outdated and sensitive to volume so this can cause

major problems. Buchanan has made reducing storm water a priority – the Kingsley Building has water-efficient fixtures and stores rainwater for use in irrigation.

• Alexandria has fairly strict green building requirements: all new residential buildings need to be LEED certified and all new commercial need to be LEED Silver.

Buchanan has found that retailers want to be very near the metro. The Maryland General Assembly declared Glenmont an "Enterprise Zone" in 2013, which essentially sets special tax incentives for the next 10 years to encourage redevelopment and draw retail to the area. Buchanan is building 1200 LEED certified multifamily units and townhouses as well as affordable housing. In Germantown, the company is building 150, 5-story multifamily LEED certified residences.

DISCUSSION:

Mr. King observed that there have been several common threads throughout the presentations, such as transportation as intrinsically linked to sustainability, and designing a sense of place.

Mr. Fisette asked Mr. Benninghoff to explain the difference between mixed use and mix of uses. Mixed use, or integrating multiple uses into the same building has proven to be cost prohibitive for Buchanan, so they primarily do "mix of uses," where multiple activities are sited close to each other. However, their Alexandria project is mixed-use. Evan Goldman noted that Realty Trust doesn't develop in exurban areas because they can't find tenants. Instead, they target mixed-use developments in high density areas that can support retail, public transit and other amenities.

The question for CEEPC is what can local governments or COG do to encourage this type of development? WMATA is seeking endorsement for their Strategic Plan or "Momentum" plan. A recommendation was made that CEEPC weigh in on this plan, or recommend that the Board endorse it. COG staff clarified that the COG board has seen the WMATA plan. Because it is of interest to CEEPC staff will do a presentation and the committee will discuss in January.

5. Projects and Subcommittee Updates

• **Solar Roadmap:** Jeff King gave a brief update on solar developments in the region. Maryland and WMATA both to soon put out an RFP for solar power. DC is also looking into solar, right now the priority is a big new wind contract but the city is planning to pursue rooftop solar when that is complete.

COG recently won 2 grants from DOE, and we are one of 9 regional councils participating in the Rooftop Solar Challenge, a program under DOE's Sunshot Initiative. The goal is to encourage solar PV by "green taping" solar projects, such as by setting up simplified, streamlined systems for zoning, permitting and other planning barriers. The first step is to establish a baseline on these policies to determine how we are doing and what can we do better. We will then identify the opportunities where we can make most impact. Several counties have joined the effort already, we are hoping to get all COG members on board. Jurisdictions should email Jeff for more information.

- Stuart Freudberg acknowledged Joan Rohlfs for her years of service to COG and CEEPC, and invited the committee to a more formal retirement celebration for Joan on December 19th.
- **Building Code Conference:** Leah Boggs gave a brief update on the ICC building code changes. Public hearings were held in Atlantic City on October 2-10 for the Group B code development. COG's presence was significant at the event and we helped to prevent several

rollbacks of energy efficient requirements for the 2015 code. Leah will send a summary of the residential and commercial building code changes to the committee for their reference.

- **Advocacy Subcommittee:** Isabel Ricker introduced herself as a new member of DEP staff and the coordinator for the CEEPC Advocacy subcommittee.
- **CEEPC/ACPAC Awards Committee Update:** Maia Davis provided a brief update on the Awards committee progress. Awards task force participants from CEEPC include Hon. Del Pepper, City of Alexandria; Hon. Ryan Spiegel, City of Gaithersburg; and Nicole Steele, Alliance to Save Energy. Task force participants from ACPAC include Bill Butler, Maryland; Caroline Petti, Washington DC; and Glenna Tinney, Virginia. They have had three productive calls so far and will bring a full proposal to CEEPC to comment and approve in January.

6. Adjournment, Chair Berliner

The Chair invited all members to join in celebrating Joan Rohlfs' retirement and partake in lunch and cake in the break room. The Chair thanked all for coming and reminded everyone that the next CEEPC Meeting will be Wednesday, January 22, 2014 @ 10:00 am – 12 pm noon.