

February 23, 2017

## Lauren Joca: Scope of Work for Chatham County

Lauren Joca is a graduate student at UNC, Chapel Hill. As a component of their respective graduate school programs, she collaborated with another graduate student, Carl Kolosna, during the Fall semester 2016 to produce for Chatham County a Report entitled "2015 Greenhouse Gas Emissions Inventory for Chatham County, North Carolina" (hereinafter, "2015 Emissions Report").

The 2015 Emissions Report represents a major step forward in the assessment of greenhouse gas (GHG) emissions for the County. However, it acknowledges that it is limited by data inadequacies.

Although, because of his busy schedule during the Spring semester 2017, Mr. Kolosna is unable to continuing working on the project, Ms. Joca is able during this UNC Spring semester to provide some additional time to help the Climate Change Committee fill some of the gaps in the 2015 Emissions Report. It is anticipated that members of the Committee will be able to gather some of the missing data but that Ms. Joca will assist in that effort. It is understood that these efforts, at least in some parts, may not be completely successful in filling the data gaps. It is understood that Ms. Joca will only be able to assist in this project during the current Spring semester.

In return for this assistance, the County is willing to compensate Ms. Joca at an hourly rate of \$15 with an understanding that the total of such assistance will not exceed \$500. Ms. Joca will complete this project and deliver her work by no later than May 31, 2017. Ms. Joca will keep careful records of her time spent and will periodically submit those records and be compensated. It is understood that she will be an independent contractor for these purposes, not a County employee, and that there will be no withholding from her compensation for taxes or benefits.

The tasks that will be performed by Ms. Joca are as follows:

1. If Ms. Joca receives data from Chatham County personnel showing the fuel mix used in 2015 by Duke Energy for the production of electricity sold by it for use in Chatham County, she will use that data to recalculate the volume of CO<sub>2</sub> equivalent greenhouse gas (GHG) emissions produced in Chatham County in 2015. If Ms. Joca does not receive data regarding Duke Energy's fuel mix, she will determine whether use of the Randolph Electric Cooperative fuel mix data would be appropriate.
2. Ms. Joca will determine whether better data exists than that used in the 2015 Emissions Report regarding vehicle miles traveled (VMT) in 2015 in Chatham County and, if it does exist and can be obtained, she will use that data to recalculate the volume of GHG emissions produced by transportation in Chatham County in 2015.
3. If Ms. Joca receives data from the Climate Change Committee regarding the number of dairy cows in Chatham County, she will use that data to recalculate the volume of GHG emissions produced by agriculture in Chatham County in 2015.
4. Ms. Joca has received data from Chatham County regarding the volume of electricity purchased in 2015 by it, and she will use that data to recalculate the volume of CO<sub>2</sub> equivalent GHG emissions produced in Chatham County in 2015. If Ms. Joca receives data from Pittsboro, Siler City and Goldston regarding the volume of electricity purchased in 2015 by them, she will use that data to recalculate the volume of CO<sub>2</sub> equivalent GHG emissions produced in Chatham County in 2015.
5. If Ms. Joca receives data from the Climate Change Committee regarding the amount of GHG emissions produced in 2015 by industries in Chatham County, she will use that data to recalculate the volume of CO<sub>2</sub> equivalent greenhouse gas (GHG) emissions produced by industries in Chatham County in 2015.
6. Ms. Joca will determine whether data exists and can be obtained relating to CO<sub>2</sub> sequestration by soil (as opposed to forests and woodlands) in Chatham County and, if it does exist, she will use that data to calculate the amount of CO<sub>2</sub> sequestered by soil and enter that calculation into the 2015 Emissions Report.

7. If Chatham County makes a present or new employee available for this purpose, Ms. Joca will train that employee in the use of the ClearPath software (to which we have access because of our membership in ICLEI) for purposes of developing future GHG inventories.

8. If Chatham County requests her to do so, Ms. Joca will assist in developing a “system” whereby the County and the Committee can receive relevant data in the future for development of future GHG inventories.