



OFFICE OF MAYOR

# Town of Waynesville

AGENDA  
REGULAR MEETING  
BOARD OF ALDERMEN  
TOWN OF WAYNESVILLE  
TOWN HALL - 9 SOUTH MAIN STREET  
AUGUST 23, 2011  
TUESDAY - 7:00 P.M.

## Call to Order

1. Approval of Minutes of July 26, 2011
2. North Carolina Department of Transportation  
Request for Water and Sewer Extension for Rest Areas on US 23-74
3. Appointment/Reappointment to Alcoholic Beverage Control Board
4. Electric Vehicle Charging Station Grant
5. Adjournment

Additional information regarding this agenda is available at [www.townofwaynesville.org](http://www.townofwaynesville.org)

ITEM 2. NORTH CAROLINA DEPARTMENT OF TRANSPORTATION  
REQUEST FOR WATER AND SEWER EXTENSION TO  
REST AREAS ON U. S. 23-74 WEST

In recent years, the North Carolina Department of Transportation has dealt with various problems in dealing with wastewater at their rest area on U. S. 23-74 West approaching the Balsam Gap. They have tried several different processes and made a number of changes to try and contend with the problem, but none have worked the way they hoped. They realize that the best option for the rest area is connection to a public sewer system.

The State would like to construct a second rest area on U. S. 23-74 West, for the westbound traffic, and they plan to remodel the existing rest area for the eastbound traffic. Again, they have looked at alternatives and found that their best option is connection to a public sewer system.

Over the past decade, the Department has approached Haywood County and the Town about an extension of the public sewer to the rest area, and at one time, the State had \$500,000 or \$600,000 reserved to pay a share of the cost. A quick estimate indicated that the cost of a gravity flow, trunk sewer line to serve the rest area and the Saunook area would be close to \$3,000,000. The Town did not have that kind of money to invest in a sewer line outside the corporate limits and under the Land Use Plan adopted ten years ago, there was a policy against extending water and sewer outside of the Urban Growth Boundary established by the Town.

The Town Board serving in the early part of the past decade offered an option to Haywood County. If the County would join with the Town to seek passage of a local bill in the General Assembly giving the Town zoning authority along the U. S. 23-74 corridor, the Town might be willing to allow connection of the sewer lines in that area to the Town's system. The Town did not want to see uncontrolled and ugly growth taking place at one of the main entrances into Haywood County. There was little further discussion, for the County had no interest in granting zoning authority; consequently, how to pay for the improvements was never addressed.

The State has purchased a tract of approximately 7 acres on the north side of U. S. 23-74 to construct a rest area for westbound travelers. Representatives of the Department of Transportation met with town staff recently to discuss their plans and renew their request for connection to the public sewer system. They understand our concerns and appreciate the Town's position regarding the Urban Growth Boundary.

While they feel that connection to the Waynesville sewer system is the best alternative for the rest areas, they also realize that the connection does not have to be through the installation of a gravity flow line. A forced main, pumping wastewater through a pressure line, could be installed and discharge the wastewater into the Town's system near Vantage Pointe or Autumn Care. Another alternative might be a combination septic system and gray water line, with the liquid leaving the septic system flowing by gravity from the rest areas to the Waynesville collection system.

There are likely other options available, and the Department is willing to fund an engineering study to assess the best alternatives and arrive at some cost estimates for all options available. The Department is willing to pay the costs of the connection, and they do not want to ask the Town to violate the principals of its Urban Growth Boundary. They would ask the Town to consider allowing the rest areas to be connected to public sewer without violating those principals.

You will find a letter from Mr. Reuben Moore, Division Operations Engineer, making the request that the Town Board agree to allow the rest areas to be connected to public sewer under the Town's terms. The actual construction of the rest areas would not take place until 2013, most likely, but they need to know now what their alternatives for sewer might be.



STATE OF NORTH CAROLINA  
DEPARTMENT OF TRANSPORTATION

BEVERLY EAVES PERDUE  
GOVERNOR

EUGENE A. CONTI, JR.  
SECRETARY

August 9, 2011

Mr. A. Lee Galloway  
Town Manager, Town of Waynesville  
16 South Main Street, PO Box 100  
Waynesville, NC 28786

Subject: TIP Project # K-5002  
Proposed Rest Area on US 23-74  
Westbound/Southbound direction

Dear Mr. Galloway:

Division Fourteen and Roadside Environmental staff of NCDOT thank you and Public Works Director Fred Baker for meeting with us today to discuss the upcoming rest area construction project currently planned to begin in August of 2013. Raleigh Roadside Environmental staff members Jimmy Parrish and Paul Stankiewicz, along with Richard Queen and myself from Division Fourteen, discussed water and sewer needs for this project with you and Mr. Baker.

The purpose of this letter is to formally ask for an exception to the Town's policy that limits water and sewer service extensions outside of the Urban Growth Boundary established by the Town. The Department anticipates requesting a connection to the water line that serves the Barber's Orchard community in Balsam. We also anticipate requesting a connection for sewer discharge, said discharge being of a type and design acceptable to the Town. The sewer discharge would be for both our existing rest area (eastbound) and the proposed rest area (westbound). We are not requesting a blanket approval for any form of discharge, but for a discharge that protects the integrity of the Urban Growth Boundary.

Approval of this request is asked at this time in order that the Department may continue with design work pursuant with preparing construction plans for this rest area. If any addition information is needed by you or the Board of Alderman, please do not hesitate to let me know. Thank you again for the guidance shared at today's meeting.

Sincerely,

A handwritten signature in black ink that reads "Reuben E. Moore".

Reuben E. Moore, PE  
Division Operations Engineer

cc: J. B. Setzer, PE, Division Engineer  
Jimmy Parrish, Rest Area Section Supervisor  
Paul Stankiewicz, Rest Area Section Technician  
R. D. Queen, Division Roadside Environmental Engineer

File

ITEM 3. APPOINTMENT/REAPPOINTMENT  
ALCOHOLIC BEVERAGE CONTROL BOARD

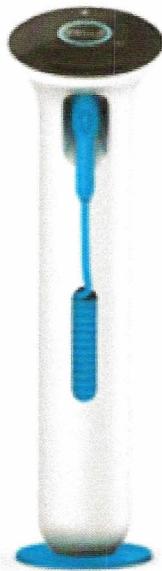
The three year term of Mr. Jack Swanger, 21 Lodge Lane, on the Waynesville ABC Board expired on August 15, 2011. Mr. Swanger has indicated that he would like to continue to serve on the Board, and we are told that he has been a good, dedicated member of this Board. If the Board sees fit to reappoint Mr. Swanger, it would be for a three year term which would expire on August 15, 2014.

#### ITEM 4. ELECTRIC VEHICLE CHARGING STATION GRANT

Last fall we were notified of a grant opportunity that provides a 50% match, of up to \$6,000 per station, for the installation of public electric vehicle charging stations. The grant is administered through Advanced Energy, who identified four planning regions in the state to target with charging stations, and the Asheville area was one of these targeted, with a goal of installing 25 charging stations in our area.

Due to an unforeseen delay in opening the application process, the timeline for installation of the charging stations is now rather compressed. The grant applications were distributed via email on August 11<sup>th</sup>, Advanced Energy wants complete applications on August 31<sup>st</sup>, and anticipates making awards on September 9<sup>th</sup>. Fortunately the installation of the charging stations is rather straightforward, as is the grant application.

In searching for an appropriate location for the units, the Town and Haywood County agreed to share in the project, including the cost of



the match, with each government contributing 50% of the match. Working with Haywood County, we have identified the Parking Deck as a viable location for these units. They will be protected from the elements, have video surveillance, and would be easily accessible for residents and visitors to downtown, as well as any future fleet vehicles. If the application is funded, the units will be installed and ready to use by December 2011.

Because the County Manager requires County Commissioner approval for the grant application and installation in the parking deck, we thought it necessary to inform our governing board as well

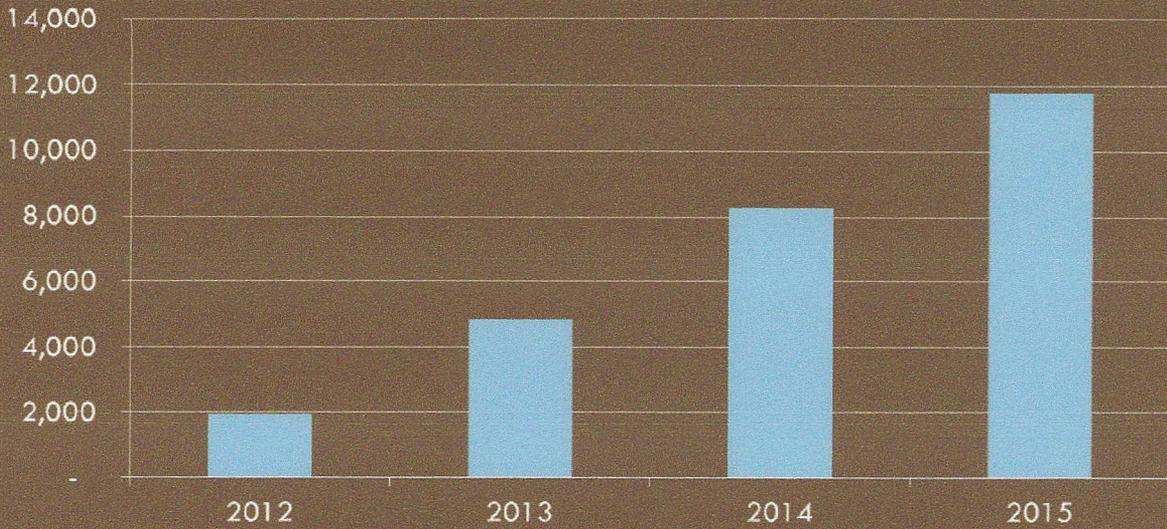
before submitting the application. The County may request a written agreement for the placement of the charging units, and if so we will work with the Town Attorney and County personnel to craft an agreement.

This grant will fund the installation of Level 2 Charging Stations, and we will be applying for two units. Above are examples of a wall-mounted and a pedestal charging station. The connections in the stations and vehicles are standardized across all manufactures.

Attached is some additional information on EV Charging Stations.

# Projected EVs in North Carolina

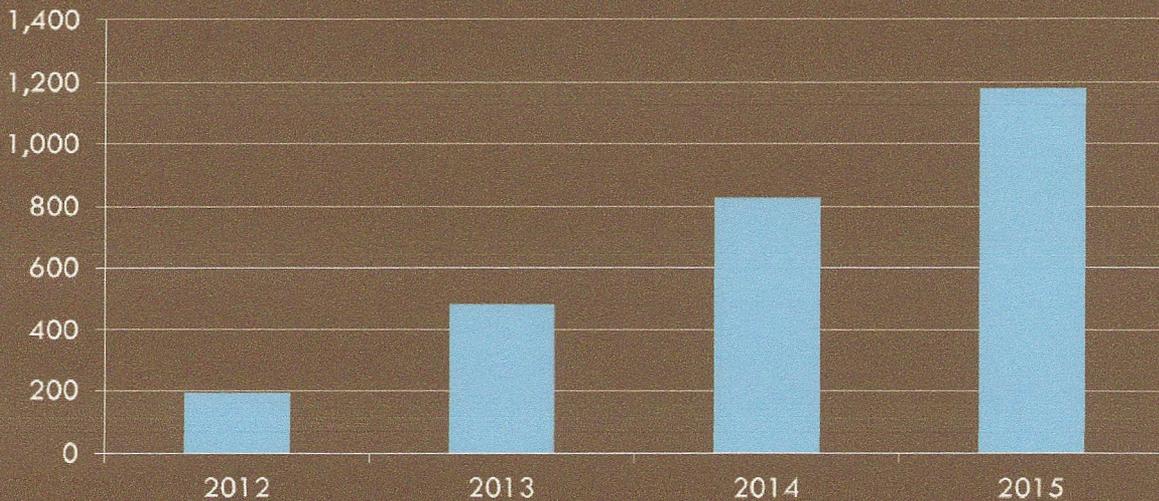
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Source: CAR Group

# Projected EVs in Asheville Metro Area

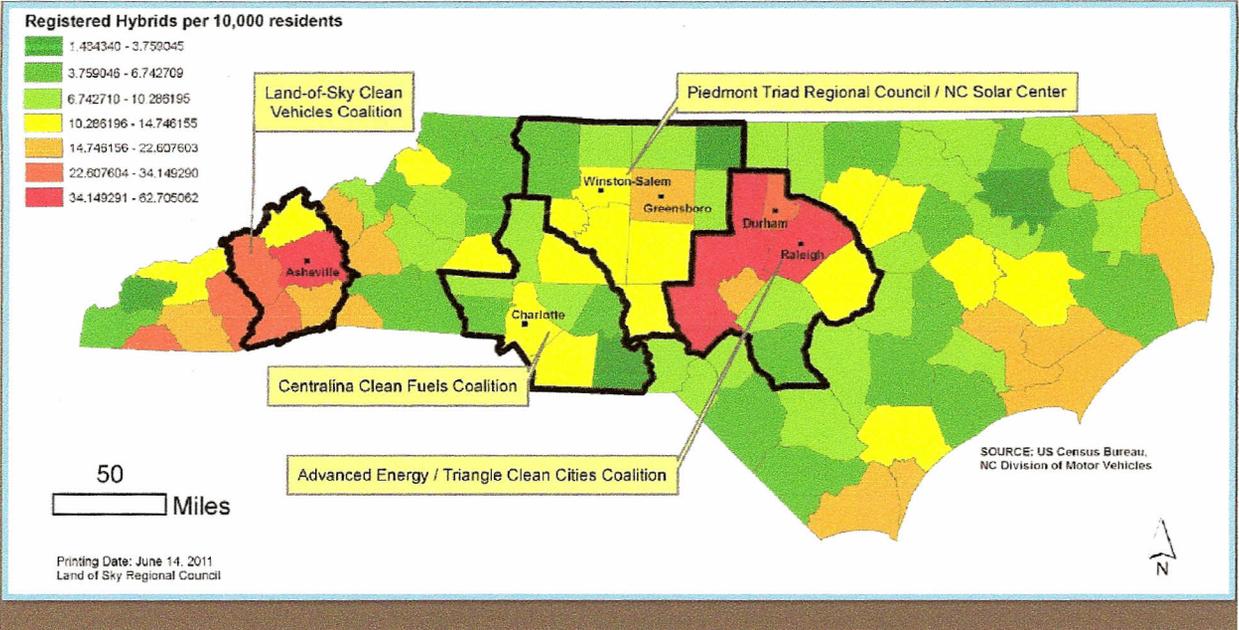
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An Asheville Area EV Readiness Plan will prepare us for the arrival of these vehicles

Asheville Metro Area: Buncombe, Haywood, Henderson, Madison, Transylvania

Data Sources: CAR Group, NC DMV





# CHARGING 101

With the imminent rollout/adoption of PEVs there is a clear and present need for electric vehicle supply equipment (EVSE), most commonly referred to as charging stations. Charging stations are the point of power for electric vehicles, ranging in style and charging levels and subject to standards and codes. It is important to note that while EVSE are normally referred to as charging stations, they are not battery chargers. The main purpose of a charging station is to establish communication with the vehicle and to transfer power to the PEV while providing proper grounding, shock protection, overload protection and general safety.

## Charging Levels

There are several levels of charging, offering a range in charge time and infrastructure simplicity:

Charging Level	Voltage & Current	Charging Time (Average)*	Equipment
AC Level 1	120 VAC, 16 amps	8-10 hours for a full charge	Standard three-prong household outlet
AC Level 2	208 to 240 VAC, up to 80 amps	2-3 hours for a full charge	Will use only the SAE J1772 specified plug
AC Level 3**	More than 240 VAC, under development	<30 minutes for a full charge	Equipment Needed
DC Fast Charge	Approximately 480 VDC, 100 amps	30 minutes for an 80% charge	Under Development; Proposal to use Japanese CHAdeMO standard

\*Estimated charge times are based on a vehicle utilizing 40 miles of electric-only driving between charges.

\*\*AC Level 3 charging is still under development, all information listed is based on current estimations.

Because Level 1 charging does not require the installation of specific charging equipment, it is widely regarded as the simplest and most easily accessible charging method for drivers. However, due to its lengthy charge time, most charging stations are expected to be Level 2.

Level 2 charging will be seen in both commercial and residential locations, with most residential Level 2 charging stations operating at a lower level of power. The initial cost for commercial equipment is estimated to be between \$1,500 to \$5,000 depending on manufacturer, model and features. Installation cost will vary based on several factors such as available power, pavement cutting and distance. Residential Level 2 charging stations will cost between \$300 to \$3,500 depending on manufacturer, model and features as well as intended location (garage, carport, driveway or dedicated parking spot). Location will impact pricing as outdoor units will need to be more rugged and weatherized.

## Typical Installation Costs for Level 2 Charging Stations:

### + PUBLIC STATION

\$4,000 to \$10,000

### + RESIDENTIAL STATION

Can range from under \$100 for new construction to \$2,000 for older homes that may require extensive electrical upgrades and wiring.

Because of their high-speed charging capabilities, both DC Fast Chargers and AC Level 3 charging stations will primarily be commercial-grade charging, with potential applications at highway rest stops, fueling stations, fleet bases and car dealers.