

# 321 Eco-Tech Development Plan



**“A Corridor Leading to Progress”**

**Catawba County**

July 11, 2011

# 321 Eco-Tech Development Plan

## Introduction

Over the past 15 years, Catawba County has undertaken a series of long-range planning initiatives to provide for the coordinated growth and development of the County. These plans included a county-wide comprehensive plan, referred to as VisionQuest 2010 (1996), a US 321 Corridor District Plan (1996), a Strategic Growth Plan (1999) and smaller focused plans referred to as “Small Area Plans” (SAP).

With the completion of US 321 in 1997, several plans were completed focusing on the economic development opportunities associated with this new highway. The US 321 Corridor District Plan provided for a coordinated growth and development analysis of the corridor. These plans were directed by the County. The cities of Hickory, Newton and Maiden jointly participated in the study. The County further refined its vision for the US 321 corridor through the preparation of small area plans for Mountain View (2002) and Startown (2005).



US Highway 321

### 321 Eco-Tech Development Plan

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Within the last five years, there has been noticeable activity in and around the US 321 corridor. The following three sites act as anchors and catalysts for the future growth in this area:

- EcoComplex - The goal of this Catawba County project is to take waste stream and convert those resources into a commodity leading to energy production. The vision over time would realize a group of innovative businesses developed around the core facility (Blackburn Landfill). This project is located off Rocky Ford Road west of US 321 within the juris-



*EcoComplex*



*Target*



*Apple*

diction of Catawba County.

- Target - This 1.5 million square foot distribution center opened in 2008 and is within the jurisdiction of the City of Newton. The facility, projected to employ 800 people, is located on Hwy. 10 west of the US 321/NC 10 interchange.
- Apple - A 500,000 square foot data center is projected to employ 50 people with an additional 250 people in support services. This facility is located on Startown Road south of the US 321/Startown Road interchange within the jurisdiction of the Town of Maiden.

## **PURPOSE**

The purpose of the 321 Eco-Tech Development Plan, hereafter referred to as the “Plan”, is to: (1) review previously adopted/accepted plans relative to the Plan area, (2) develop a set of goals based upon applicable principles in the Startown and Mountain View SAP , and (3) prepare a series of Plan Action Strategies (PASs) with measurable outcomes, timelines and relevant agreements. See the Plan Action Strategy (PASs) Legend at the end of this chapter and each Plan Action Strategy (PASs) table at the end of their respective chapters. The legend explains the symbols, prioritization, and timelines associated with each PASs. The appendix also has a consolidated PASs table for convenience. The plans described in the *Background* section are still valid and serve as the foundation for this Plan.

More specifically, the Plan addresses a series of issues focusing upon:

- A smaller geographic area than what was previously defined within the Foresight 321 Task Force Report, US 321 Corridor District Plan, Future Forward, and the Mountain View and Startown SAPs;
- The Identification of potential green economic and educational opportunities;
- The coordination of utilities between local governments through signed agreements and de-

lined boundaries;

- An improved transportation network;
- A more defined development approach for each interchange along US 321;
- Identifying proposed industrial parks based upon the themes of green energies, technology, and transportation; and
- Modifying land use regulations and design standards.

## PLAN AREA

The Plan Area includes the land around US 321 and is bounded by the City of Hickory's jurisdiction north of River Road, Hickory-Lincolnton Hwy. to the west, the Catawba-Lincoln county line to the south, and Startown Road, Sandy Ford Road and the Henry Fork River to the east. The cities' planning areas are not included within the Plan Area; however, their participation in this Plan is crucial to the economic development of the corridor, to ensure compatible land uses, and provide cost-effective installation of public utilities. The boundary for the Plan is depicted on *Map 1: Plan Area*. *Note: All maps referenced in the Plan document are located at the end of the relevant chapter.*

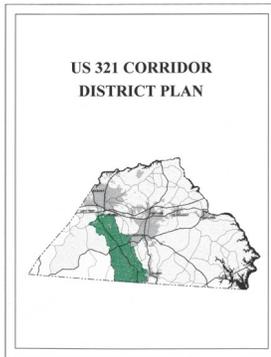
## BACKGROUND

As noted in the *Introduction* above, several plans have been adopted/accepted which include components relative to the US 321 corridor or focused entirely on the corridor. Following is an overview of those plans and key components, several of which are incorporated into this Plan.

**Foresight (1990)** - The 321 Task Force prepared a coordinated report for the Foresight Committee to analyze the impacts of constructing the US 321 by-pass corridor through Catawba County. The report identified:

- Areas of population growth
- Need for utilities expansion
- Transportation needs
- Land use recommendations and unified develop-





ment standards

- Economic development opportunities

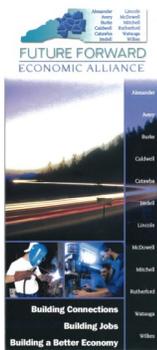
**US 321 CORRIDOR DISTRICT PLAN (1996)** - This plan was prepared in response to the Foresight report recommendation that the local governments along the US 321 corridor adopt uniform land development codes and policies. This plan included 16 goals generally grouped into major policy areas as follows:

- Transportation
- Utilities
- Conservation
- Future Land Uses
- Urban Design and Site Planning

The US 321 Corridor District Plan recommended the proactive rezoning of urban activity centers located at interchanges which supported the plan's goals to provide for economic development opportunity sites and planned, coordinated development.

**FUTURE FORWARD (2003)** - In the Summer of 2002, a committee of business, government, and academic leaders was formed to include twelve counties in North Carolina's 10<sup>th</sup> and 11<sup>th</sup> Congressional District. The Future Forward Committee set out to create a regional economic development strategy which would serve as a guide to the future and identify critical public and private investments in response to significant economic challenges in the area. This plan identified key elements of the "Future Forward Vision" by focusing upon:

- Improving education and skills of the workforce
- Encouraging a renewed sense of entrepreneurship and innovation
- Promoting a more diverse economy
- Developing and protect the outdoor amenities/environment
- Encouraging teamwork of local governments



**MOUNTAIN VIEW SMALL AREA PLAN (2002)** - This plan is one of seven plans prepared for the unincorporated areas of the County resulting from one of the sixteen strategies identified the County's Long Range Strategic Growth Plan. The plan addresses a host of recommendations some of which are listed below:

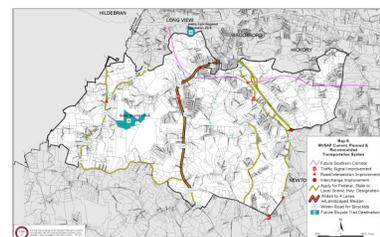
- Land Use and Community Design
  - If utilities are available to support multi-family developments, the preferred location for such developments would be along the US 321 corridor
  - The US 321/River Road interchange should be designated for mixed-use development consisting of multi-family and commercial uses
  - Direct office-institutional uses to the US 321 Corridor and River Road interchange
  - Encourage office or institutional developments in park-like settings
  - Limit industrial uses to the US 321 Corridor.
  - If industrial uses are developed, encourage light intensity uses in park-like settings.
- Transportation
  - Continue to support the completion of construction of US 321 interchange at Sandy Ford Road
  - Upgrade existing roads and evaluate the need for new connectors between US 321 and NC 127
- Community Facilities and Public Services
  - Provide canoe and raft portage points on the Henry Fork and Jacob Fork.
  - Create trails along the Henry and Jacob Forks to accommodate the needs of hikers, bicyclists and equestrians
  - Designate areas for utility expansion, direct



*Bakers Mountain*



*Community interest meeting.  
Mountain View*



*Mountain View Transportation Map*



*Canoe access along river*



*US 321 and Bakers Mountain*



*Henry Fork River*

growth in those areas and require utility placement prior to development

- Partner with municipalities to provide utilities consistent with adopted land use plans
- Economic Development
  - Include areas of transition in the US 321 corridor on the future land use plan. The transition areas should include activities such as:
    - Office developments
    - Neighborhood retail/commercial and entertainment uses
    - Public facilities
    - Mixed-use developments
  - Designate the US 321 corridor as a scenic highway and adopt appropriate regulations to protect the scenic quality of the area as development occurs.
  - Designate the northeast quadrant of the interchange at US 321 and River Road as ED(I) for future industrial development
  - Industrial uses, if developed, should be constructed in an attractive park-like setting without heavy traffic, air and noise pollution. Light industrial uses should be the focus of such development.
- Natural Resources
  - Create scenic and wildlife corridors by utilizing rivers, such as the Henry Fork and Jacob Fork, and floodways for open space planning

**STARTOWN SMALL AREA PLAN (2005)** –This plan is also one of seven plans prepared for the unincorporated areas of the County resulting from the County’s Long Range Strategic Growth Plan. Following are plan recommendations relative to the US 321 corridor:

- Land Use and Community Design
  - Work with NCDOT and the Town of Maiden to establish a gateway entrance into Catawba County with attractive signage on US 321 at the Startown Road interchange.
  - Recommend an interchange on US 321 at Rocky Ford Road.
  - Encourage higher development standards are including location of parking areas (rear or side), landscaping, building materials, walkability, and buffering.
- Transportation
  - Add turn lanes, turn signals, and make intersection improvements, where warranted, along major collectors and minor arterial roads with the plans boundaries.
  - The new interchange at US 321 and Rocky Ford Road should be designed to accommodate industrial traffic, especially trucks from the Blackburn Landfill on Hickory-Lincolnton Highway. The proposed interchange on US 321 and Rocky Ford Road and improvements to Rocky Ford Road should adhere to the design standards established by the US 321 Corridor Plan.
- Community Facilities and Public Services
  - Work with land owners and local conservancies to establish passive recreational uses and boating opportunities along the South Fork River.
  - Explore the adaptive reuse of the Blackburn Landfill, including recreational opportunities.
- Housing
  - Encourage traditional neighborhood design utilizing techniques such as pedestrian-accessible and walkable neighborhoods through connected streets, side-



*Community interest meeting.  
Startown*



*Welcome to Catawba County  
Sign—South of Startown*



*Startown Elementary*



*Traditional Neighborhood Design*



*Cluster Subdivision Design*



*Commercial/Mixed-Use*

walks, street trees, and community amenities.

- Neighborhoods should include a variety of housing types and sizes
- Cluster subdivisions are required in certain high density residential areas.
- Development of higher density single family housing should occur where infrastructure and services exist or are planned.
- Economic Development-
  - Pursue a light industrial park along NC 10 near the US 321 interchange.
  - Support development of commercial, office, and residential uses.
  - A community center commercial node on US 321 at the future interchange at Rocky Ford Road.
  - Rural commercial node at the intersection of NC 10 and Hickory-Lincolnton Hwy.
- Cultural Resources
  - Support the preservation of Oakwood Farm near the intersection of US 321 and NC 10.
  - Partner with municipalities to provide utilities consistent with adopted land use plans and smart growth principles.

## **PROCESS**

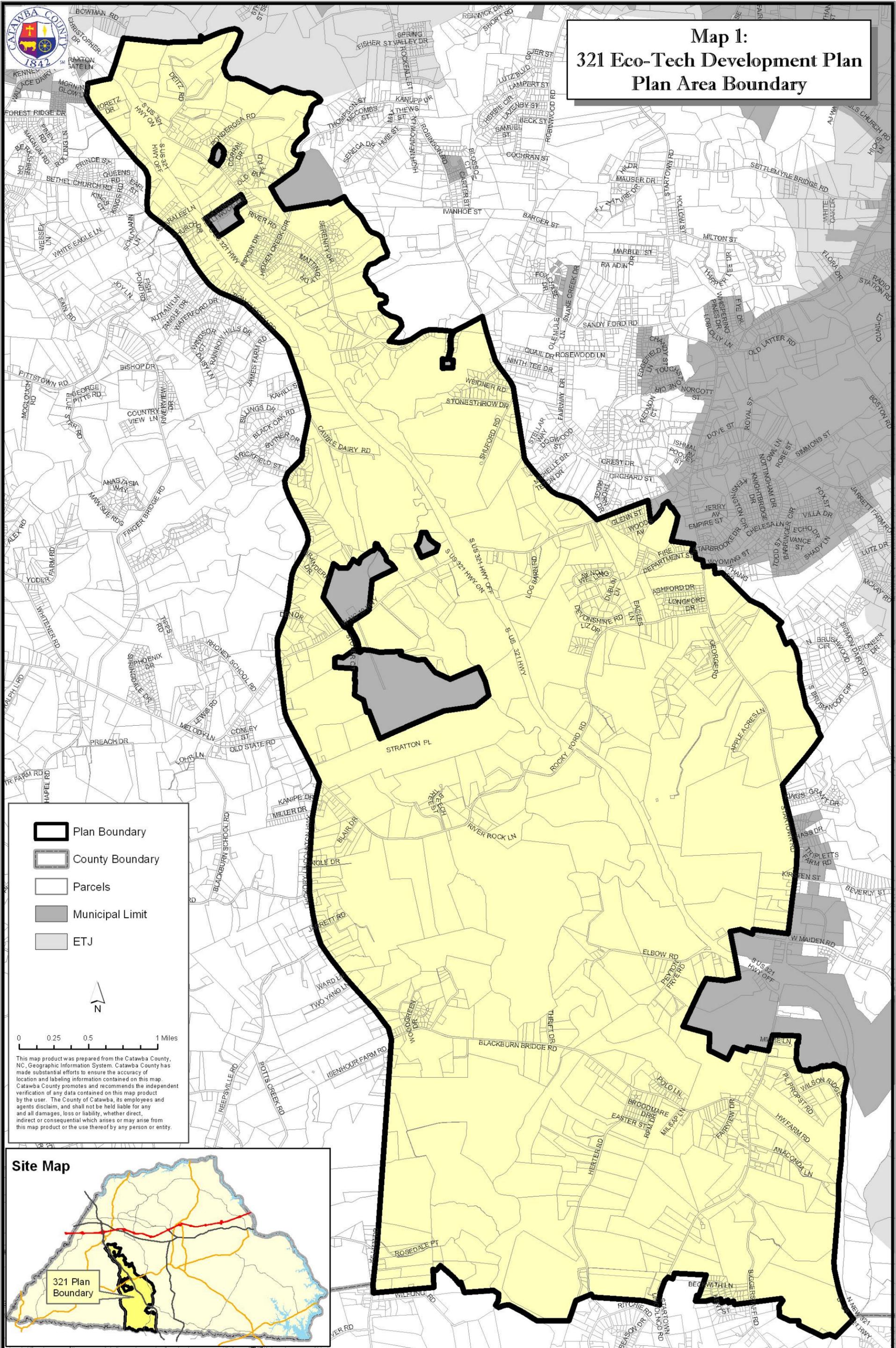
The Plan was drafted by the Catawba County Planning staff with technical assistance from the following:

- Catawba County Utilities and Engineering
- Catawba County GIS
- Western Piedmont Council of Governments
- City of Hickory

- Town of Maiden
- City of Newton
- Economic Development Commission
- NCDOT
- Cooperative Extension
- Catawba County Schools
- Catawba County Historical Association

The Plan was presented to the Lake Hickory Rotary Club on April 19, 2011, Chamber's Land Use Development Board on April 20, 2011, and the public at a public forum on June 16, 2011. Approximately 20 citizens attended the public forum to provide feedback on the plan recommendations and implementation strategies. Additionally, the Planning Board conducted a public hearing on the plan at its June 27, 2011 meeting. One person spoke to the plan. The Planning Board recommended the Plan to the Board of Commissioners.

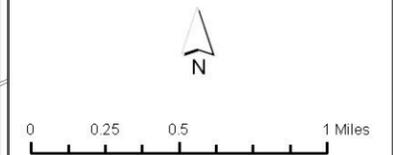
The Board of Commissioners similarly conducted a public hearing on the plan at its July 11, 2011 meeting. Two people spoke to the plan. The Board discussed the plan and accepted the plan as presented.



**Map 1:  
321 Eco-Tech Development Plan  
Plan Area Boundary**



- Plan Boundary
- County Boundary
- Parcels
- Municipal Limit
- ETJ



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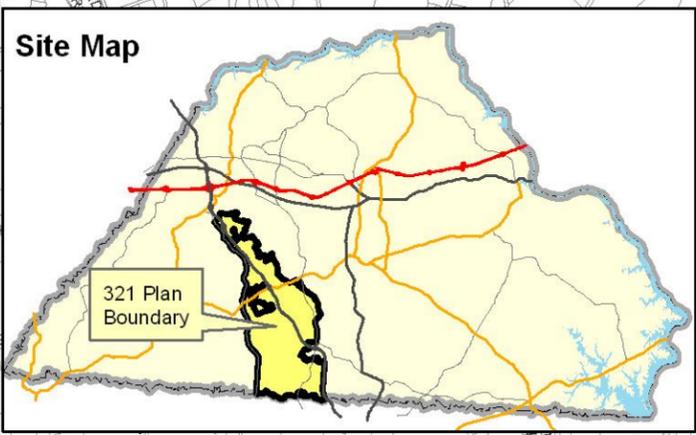


Table 1: Plan Action Strategies *(PASs) Legend						
Chapter Title (Key letter underlined)	Letter (symbolizing chapter title)	Chapter Number	Chapter Principal (P)	Chapter Goal (G)	**Timeframe Ranges: Short, Mid, Long	***Priority (H), (M), (L)
<u>E</u> conomic Development	E	2	EP	EG	**	(H), (M), (L)
<u>L</u> and Use	L	3	LP	LG	**	(H), (M), (L)
<u>T</u> ransportation	T	4	TP	TG	**	(H), (M), (L)
<u>P</u> ublic Service and Community Facilities	P	5	PP	PG	**	(H), (M), (L)
<u>N</u> atural Resources/ Open Space	N	6	NP	NG	**	(H), (M), (L)
<u>C</u> ultural Resources	C	7	CP	CG	**	(H), (M), (L)

\*PASs- Plan Action Strategies were formulated using the “SMART” criteria:

- Specific- Is it specific enough?
- Measurable- Can you measure it?
- Achievable- Is it achievable and supported among stakeholders?
- Realistic- Is it cost effective?
- Timely- What is the timeframe?

\*\*Timeframe- Each priority level is further categorized by the estimated time (See PASs Tables, “timeframe”) to implement the PASs as follows:

- 3-6 months                      Short Range
- 6-18 months
- 18 months-3 years
- 3-5 years                         Mid Range
- 5-10 years
- 10 + years
- Ongoing                         Long Range

\*\*\*Priority Criteria is based on ease of implementation, political and community support, cost /benefit, funding availability, and timeframe.

- High-(H)
- Moderate-(M)
- Low- (L)

# Economic Development

## CURRENT CONDITIONS AND TRENDS

Catawba County’s economy continues to move away from its historic reliance upon traditional manufacturing industries such as textile, hosiery and furniture. As Catawba County’s economy has become more diverse over the last decade, a shift from the production of goods to the provision of services in sectors such as: health care, finance, retail, food, and administration has occurred.

The steady loss of manufacturing jobs has had a significant impact upon Per Capita Personal Income (PCPI). Modest gains have not offset this trend. Statistics provided by the Western Piedmont Development Board, published in its newsletter (summer 2010), indicated that the PCPI for the Hickory Metropolitan Statistical Area (MSA) rate of growth of 7.2 % from 2004-2007 was less than the national average (13.4%) and the North Carolina average (10%). By 2007, the region had fallen to 319<sup>th</sup> out of 366 metro areas in PCPI. The decline in the rankings is due to the loss of higher paying manufacturing jobs in the Hickory Metro Area.

*“Opportunity often comes disguised in the form of misfortune or temporary defeat.”*

*- Napoleon Hill*

The Hickory MSA continues to suffer under a high unemployment rate falling near or at the bottom of the 14 MSAs in North Carolina. The current rate is 12.7% as pointed out in the fall 2010 Western Piedmont Development Board newsletter. While the unemployment rate has improved from the summer rate of 13.3%, it still remains at a level that contributes to an anemic local economy.

It is imperative to aggressively pursue economic opportunities that will help turn these negative economic indicators around. One opportunity centers around the growing awareness at the State, National, and International level that recognizes the US Highway 321 Corridor as North Carolina’s data center corridor. Factors which make this

### Economic Development

Current Conditions and Trends	1
Guiding Principles	3
Plan Goals	3

corridor so attractive are its accessibility to major transportation arteries, close proximity to a major international airport, a regional airport, and two metropolitan areas.

Are there recent developments within the Plan area which offer reason for hope and optimism? The answer is yes. Three recent examples within the US Highway 321 corridor area are contributing to a stronger economic outlook. These three projects were briefly described in the Plan *Introduction*.



**Apple —** Stands at 71<sup>st</sup> in the top 100 companies in the Fortune 500 rankings according to the Bloomberg Business Week. It is at the top of its list of “the 50 most innovative companies.” Apple is Fortune’s computers, office and equipment category and places third in revenue following Hewlett-Packard and Dell. Apple’s return to investors over the last five years (45.6%) makes it number one among all companies. For the sixth consecutive year, Apple tops the Bloomberg Business Week list. The report recognizes Apple for its consistent ability to revolutionize digital technology.

**Target —** Stands at 28<sup>th</sup> in the 100 companies in the Fortune 500 rankings according to the Bloomberg Business Week. It ranks second in the Industry: General Merchandisers Category. As with most businesses, Target began as a small general merchandise store and built its flagship store under the name of Target in 1962. The founder, George Draper Dayton, believed in “the higher ground of stewardship.” His store became known for dependable merchandise, fair business practices, and a generous spirit of giving.

**EcoComplex —** As Apple and Target are both leaders in their business categories, the EcoComplex is on the cutting edge of innovation as it: (1) seeks to attract a variety of symbiotic industries and

businesses that will be able to use renewable energy produced by methane, syngas, and other by-products generated on site; (2) produces alternative fuels such as biodiesel; and (3) serves as a host for research and development facilities operated by colleges and universities in the region.

Attributes such as innovation, creativity, philanthropy, fair business practices, and resourcefulness are associated with the three business ventures described above. They serve as catalysts for building momentum toward economic growth for the region.

## ***GUIDING PRINCIPLES***

The following were taken from a list of principles found in the Startown and Mountain View Small Area Plans.

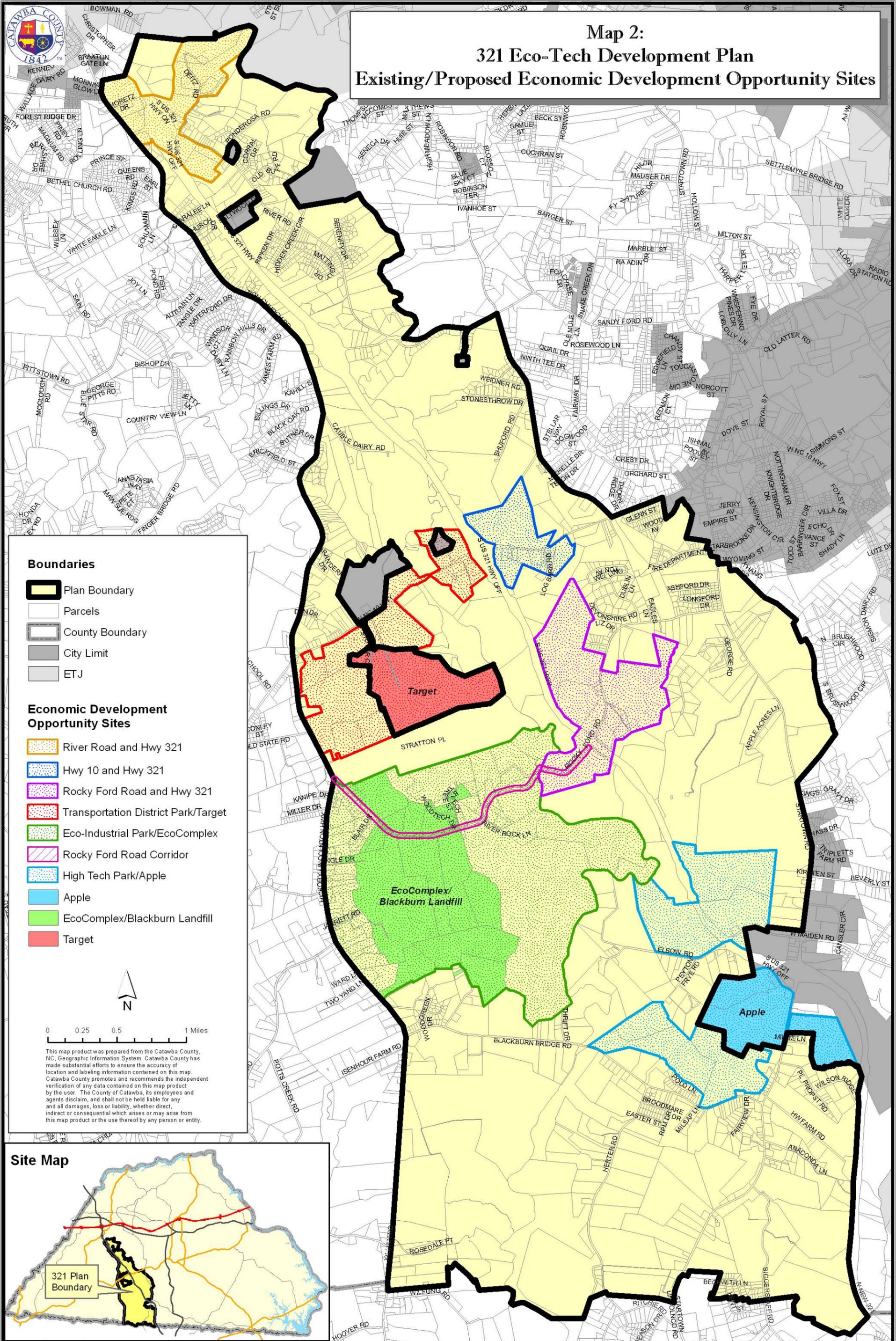
- EP-1 Facilitate and encourage new, community-focused economic development.
- EP-2 Create more aesthetically pleasing commercial, industrial and mixed-use developments.
- EP-3 Industrial areas should be directed to areas with appropriate water and sewer services having access to adequate transportation routes.
- EP-4 Continue to separate industrial uses from residential uses.



## ***PLAN GOALS***

- EG-1 Pursue the development of a business and light industrial park with emphasis upon transportation and distribution facilities centered around Target, west of the US Highway 321 interchange along NC Highway 10. *See Map 2: Existing and Proposed Economic Development Opportunity Sites.*
- EG-2 Pursue the development of a business and industrial ecology park centered around the existing EcoComplex to the north and south of Rock Ford Road. *See Map 2: Existing and Proposed Economic Development Opportunity Sites.*

- 
- EG-3 Pursue the development of a business and technology park centered around Apple, north and south of US Highway 321. *See Map 2, Existing and Proposed Economic Development Opportunity Sites.*
  - EG-4 Encourage and promote mixed-use development at designated nodes identified as: US Highway 321 and River Road interchange; US Highway 321 and NC Highway 10 interchange to the east; and US Highway 321 and Rocky Ford Road proposed interchange. *See Map 2: Existing and Proposed Economic Development Opportunity Sites.*
  - EG-5 Expand broadband infrastructure in the Plan area in support of high-tech industries and communications.



# Map 2: 321 Eco-Tech Development Plan Existing/Proposed Economic Development Opportunity Sites

**Boundaries**

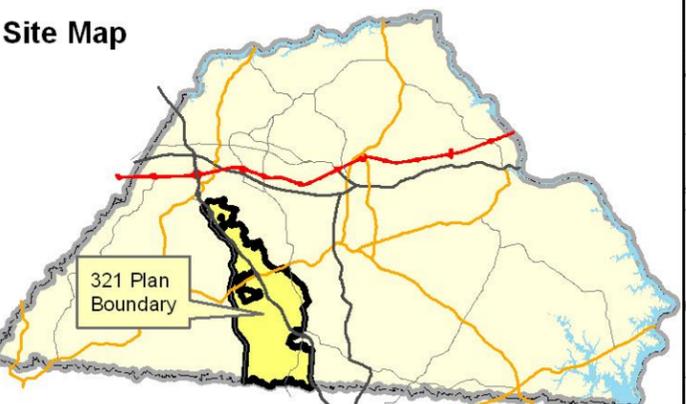
- Plan Boundary
- Parcels
- County Boundary
- City Limit
- ETJ

**Economic Development Opportunity Sites**

- River Road and Hwy 321
- Hwy 10 and Hwy 321
- Rocky Ford Road and Hwy 321
- Transportation District Park/Target
- Eco-Industrial Park/EcoComplex
- Rocky Ford Road Corridor
- High Tech Park/Apple
- Apple
- EcoComplex/Blackburn Landfill
- Target

0 0.25 0.5 1 Miles

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**Plan Action Strategies (PASs)  
Economic Development**

PASs #	CATEGORY	GOAL	LEAD AGENCY	ACTION STEPS	CHAPTER #	PRINCIPAL #	GOAL #	TIMEFRAME	PRIORITY
1	Economic Development	Pursue the development of a business and light industrial park with emphasis upon transportation and distribution facilities centered around Target, west of the US Highway 321 interchange along NC Highway 10.	Economic Development Commission and City of Newton	Coordinate efforts to secure sufficient land around the existing Target facility to accommodate related transportation and distribution facilities which can be served by public infrastructure.	2	EP-3	EG-1	Ongoing	H
2	Economic Development	Pursue the development of a business and industrial ecology park centered around the existing EcoComplex to the north and south of Rock Ford Road.	Utilities and Engineering, Economic Development Commission, and Planning	Update the EcoComplex and Resource Recovery Center Master Plan to reflect existing and proposed partnerships and economic opportunities.	2	EP-3	EG-2	18 Months - 3 Yrs.	H
3	Economic Development	Pursue the development of a business and technology park centered around Apple, north and south of US Highway 321.	Economic Development Commission and Town of Maiden	Coordinate efforts to secure sufficient land around the existing Apple facility and pursue server farms, call centers, and other high-tech facilities which can be served by public infrastructure.	2	EP-3	EG-3	Ongoing	H
4	Economic Development	Expand broadband infrastructure in the Plan area in support of high-tech industries and communications.	Information Technology and Utilities and Engineering	Build upon the Motorola-Catawba County-Universities/ Colleges partnerships in establishing broadband infrastructure; create new partnerships and networks; and secure new funding sources for this expanded infrastructure.	2	EP-3	EG-5	18 Months - 3 Yrs.	H

# LAND USE AND COMMUNITY DESIGN

## CURRENT LAND USE

Residential uses and open space occupy the vast majority of land in the Plan boundaries. Manufacturing/industrial uses in the Plan are located west of US 321. Commercial, office-institutional, and public services are dispersed throughout the Plan area. *See Map 3: Current Land Uses.*

Forty-eight percent (48%) of the land is used for residential purposes, while 45% remains vacant (open space). Industrial and manufacturing uses occupy 6% of the land area and office-institutional, commercial, and public service utilities occupy less than 1% each. *See Table 2: Acreage by Use.*

### Land Use And Community Design

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Site Development Patterns and Land Design Trends	5
Future Land Use Classifications	5
Guiding Principles	7
Plan Goals	8



<b>Table 2: Acreage by Use</b>		
<b>LAND USE</b>	<b>Acreage</b>	<b>% of Total</b>
Open Space	6,208	45%
Residential	6,563	48%
Office-Institutional	74	< 1%
Commercial	32	< 1%
Industrial/Manufacturing	882	6%
Utility	4	< 1%
<b>Total Acreage</b>	<b>13,763</b>	<b>100%</b>

Source: Catawba County GIS, 2010

### **CURRENT ZONING**

There are 13,763 acres within the Plan boundary. Residential zoning occupies 12,543 acres and non-residential (industrial and commercial) zoning encompasses the remaining 1,220 acres. See *Table 3: Acreage by Zoning District*.

<b>Table 3: Acreage by Zoning District</b>					
<b>ZONING DISTRICT</b>	<b>Acreage</b>	<b>Occupied Acreage</b>	<b>Vacant Acreage</b>	<b>% Occupied</b>	<b>% Vacant</b>
Residential (R-40, R-20)	12,543	8,720	3,823	70%	30%
Industrial (321-ED(I))	983	746	237	76%	24%
Commercial (321-ED(MX), HC, RC)	237	72	165	30%	70%
Office-Institutional (O-I)	0	0	0	0	N/A
<b>Total</b>	<b>13,763</b>	<b>9,538</b>	<b>4,225</b>		

Source: Catawba County GIS, 2010

Residential properties located south of NC 10 are predominately classified as R-40 which is intended to accommodate low-density (one house per acre) single-family development and agricultural uses. The R-40 zoning applies to most of the large undeveloped tracts of land throughout the Plan area. Residential properties located north of NC 10 are predominately classified as R-20 which is intended to accommodate higher-density (two houses per acre) single-family development and agricultural uses.

When the US 321 Corridor District Plan was adopted in 1996 a new zoning category, 321-Economic Development (ED), was created for properties within the corridor. As a general rule, in order to develop property for commercial or industrial uses the land must be zoned 321-ED(MX) or 321-ED(I). At that time approximately 2,000 acres were proactively rezoned to either 321-ED (MX) or 321-ED(I) to encourage economic development within the corridor.

Property zoned for industrial development (321-ED(I)) is bounded by NC 10 to the north, Rocky Ford Road to the south, the South Fork River to the east, and Hickory-Lincolnton Highway to the west. The 321-ED(I) district allows for primarily industrial, warehousing, and distribution uses with accessory office uses permitted.

Property zoned for mixed-use development (321-ED (MX)) exists at the US 321 and River Road interchange and US 321 and NC 10 interchange. The 321-ED(MX) zoning district allows for any combination of retail, commercial, office-institutional and residential components but never exclusively large-lot, single-family homes.

The only Rural Commercial RC property in the Plan boundary is located at the intersection of Hickory-Lincolnton Highway and NC 10. Highway Commercial HC is designated for two properties at the southern most point of the Plan boundary on Startown Road. There are no properties within the Plan boundary zoned Office-Institutional. *See Map 4: Current Zoning.*

## **EXISTING ZONING OVERLAY DISTRICTS**

The Watershed Protection-Overlay establishes watersheds designed to protect sources of water supply for

public water systems by regulating density. The WS-III Watershed Critical Area north of NC 10 on the Jacob Fork River just north of the Jacob Fork, Henry Fork, and South Fork confluence surrounds the Newton water intake. Development is limited in the WS-III Critical Area surrounding the intake as required by the NC Water Supply Watershed legislation. The Critical Area requires 40,000 square feet (slightly less than one acre) for each single-family residential lot. All other residential and non-residential development in the Critical Area is limited to 12% lot coverage. The WS-III Protected Area which exists to the north and west of NC 10 and Zion Church Road allows more development, requiring approximately one-half acre (20,000 square feet) for each single-family residential lot. All other residential and non-residential development in the Protected Area is limited to 24% lot coverage.

A small area at the southern part of the Plan boundary around Herter Road is within the WS-IV Watershed Protected Area which requires at least 20,000 square feet for each single-family residential lot. All other residential and non-residential development is limited to 24% or 36% lot coverage depending on the use of curb and gutter systems being installed.

The Rural Preservation-Overlay exists along Hickory-Lincolnton Highway south of NC 10 to the intersection of Blackburn Bridge Road. It runs along the full extent of Blackburn Bridge Road; and along Startown Road from Wyoming Street area ending just north of West Maiden Road. This overlay establishes a 100-foot front setback or buffering option depending on the proposed development. It establishes a balance between development and the rural character of the corridor.

Approximately 1,134 acres around the South Fork River and Herter Road south of Blackburn Bridge Road are within the Double-wide Manufactured Home-Overlay. Double-wide manufactured homes are permitted by right within this overlay. Other opportunities for single-wide and double-wide placement exist throughout the Plan boundary, but are limited.

All of the area within the Plan boundary as well as some additional areas east of Startown Road, Robinson Road, and River Road and northwest of Zion Church Road are within the Economic Development-Overlay. Some of the purposes behind this overlay are to allow conversion of

farmland and vacant land to more urban uses, avoid uncoordinated strip development patterns, provide more usable and suitably located recreation facilities, encourage cooperation between local governments concerning municipal growth and service extensions and support mixed-use projects. This strategy serves to enhance the economic, tax, and employment base for the County. *See Map 5: Current Zoning Overlay.*

## ***SITE DEVELOPMENT PATTERNS AND LAND DESIGN TRENDS***

Historically, rural and agricultural uses were the most dominant land use in the Plan boundary. In recent decades, scattered housing developments have been built throughout the area. The majority of residential developments have occurred north of NC 10, near the intersection of Startown Road and Rocky Ford Road, and along the eastern and western portions of Blackburn Bridge Road. The densest residential growth has occurred along River Road. More growth is expected in areas where public water and sewer lines are extended. Generally, residential activity has consisted of a mixture of site-built subdivisions.

Greater non-residential activity is also expected along US 321 where the highway provides the infrastructure necessary to support industrial uses. The *US 321 Corridor District Plan* anticipates this growth by requiring more stringent development standards than in other parts of the County. Within the past three years, a data center and distribution center have been constructed along the corridor; and momentum for green technologies has increased at the Catawba County EcoComplex and Resource Recovery Facility. Mixed commercial/office/residential uses may increase along US 321; however, large strip centers and big box retailers are unlikely to emerge in the Startown area. Hickory, Newton and Conover offer large shopping alternatives for residents of the Plan area.

## ***FUTURE LAND USE CLASSIFICATIONS***

In order to guide development in the Plan area, future land use classifications have been depicted on *Map 6: Future Land Use Recommendations*. The map is sepa-

rated by classifications of differing land uses based upon an analysis of existing land uses, economic potential, future utilities, road projects, and environmental conditions. Following is a description of the land use classifications:

#### ***OPEN SPACE***

The open space classification is applied to land that is currently (or can in the future) be permanently protected through a conservation-based organization. This land cannot be developed for residential or non-residential uses but it is conserved land which may also serve a public recreation purpose, such as a greenway system.

#### ***RESIDENTIAL—LOW DENSITY***

The low density residential classification applies to the land area in the southern portion of the Plan area. This area is very rural in character and should remain rural based upon its current development pattern, rural viewshed and limited infrastructure availability. The low density residential area would allow single-family residential uses on one-acre lots or larger. Non-residential uses (excluding churches, schools and public facilities) should not be permitted.

#### ***RESIDENTIAL— MEDIUM DENSITY***

The medium density residential classification applies to the land area north of Hwy. 10 and extends to the northern Plan area boundary. Most of this land area has access to public water and/or sewer; therefore, more dense residential development is allowed on lots less than one-acre. Non-residential uses (excluding churches, schools and public facilities) should not be permitted.

#### ***TRANSITIONAL***

The transitional classification serves several purposes. It identifies land that has the potential for mixed use development, with multi-family and/or commercial uses, or industrial uses compatible with the economic goals of this Plan in the future. These transitional areas should be within a local government's intended service delivery area.

#### ***MIXED-USE***

The mixed-use classification is limited to property adjacent to or within a relatively short distance of the US 321 interchanges. Within the mixed used classification,

higher density residential, commercial and office-institutional uses are allowed but never exclusively single-family homes. The mixed-use classification supports the economic development goals of this Plan.

### ***INDUSTRIAL***

The industrial classification, like the mixed-use classification, is located within proximity to the US 321 interchanges. Large-scale, campus style (preferred) industrial, distribution, warehousing, and high-tech developments are the types of uses allowed in the industrial classification. The industrial classification supports the economic development goals of this Plan.

## ***GUIDING PRINCIPLES***

The following were taken from a more complete list of principles found in the Startown and Mountain View Small Area Plans.

### ***RESIDENTIAL***

- LP-1 Balance growth with the community's rural character.
- LP-2 Organize and plan residential development.
- LP-3 Encourage residential design qualities that do not negatively impact air quality, including pedestrian options such as sidewalks, walking trails and bike paths.

### ***COMMERCIAL***

- LP-4 Focus commercial growth in Mixed Use Commercial Development Nodes, rather than strip development along highways.
- LP-5 Buffer commercial uses from residential areas.

### ***INDUSTRIAL***

- LP-6 Target industrial growth within the Plan area to specific, appropriate sites.
- LP-7 Direct industrial uses to planned park developments.
- LP-8 Separate industrial areas from residential areas.

## PLAN GOALS

The following goals make recommendations for future land uses which aid in the rezoning process of individual properties upon request, but do not proactively rezone those privately-owned properties.

*“Success  
always comes  
when  
preparation  
meets  
opportunity”.*

*–Henry Hartman*

### COMMERCIAL

- LG-1 Expand the land area for mixed use development at the following interchanges. *See Map 6: Future Land Use Recommendations.*
- River Road and US 321
  - NC 10 and US 321 (Southeast)
  - Rocky Ford Road and US 321
- LG-2 Provide for transitional areas which are consistent with the US 321 Corridor District Plan not impacted by LG-1. *See Map 6: Future Land Use Recommendations*
- LG-3 Reduce the ED-O Economic Development-Overlay to match the Plan boundary. *See Map 7: Recommended Zoning and Overlay Map Amendments.*

### INDUSTRIAL

As described in the introductory section, the Eco-Complex, Target Distribution Center, and Apple Data Center serve as a foundation to expand industrial land use opportunities within the Plan boundary. The following industrial goals are proposed as an outgrowth of these three distinct facilities.

- LG-4 Amend zoning map to include the existing Eco-Complex in the 321-ED(I) district. *See Map 7: Recommended Zoning and Overlay Map Amendments.*
- LG-5 Provide for a High-Tech Industrial Park along Startown Road near the intersection of US 321. *See Map 6: Future Land Use Recommendations.*
- LG-6 Provide for a Transportation/Distribution Park to the west of US 321 on properties adjacent to or in close proximity of NC 10 on the north and south side. *See Map 6: Future Land Use Recommendations.*



*High-Tech Industrial Park*

- LG-7 Relax façade treatment regulations in 321-ED(I) districts.
- LG-8 Reduce the principal building setbacks from non-residential property lines.
- LG-9 Allow a perimeter buffer waiver option.
- LG-10 Expand permitted uses within the 321-ED(I) and ED(MX) districts.

**CORRIDOR**

- LG-11 Encourage the installation of monument signage along both sides of the right-of-way adjacent to the EcoComplex, using a consistent design.



*Monument Sign*

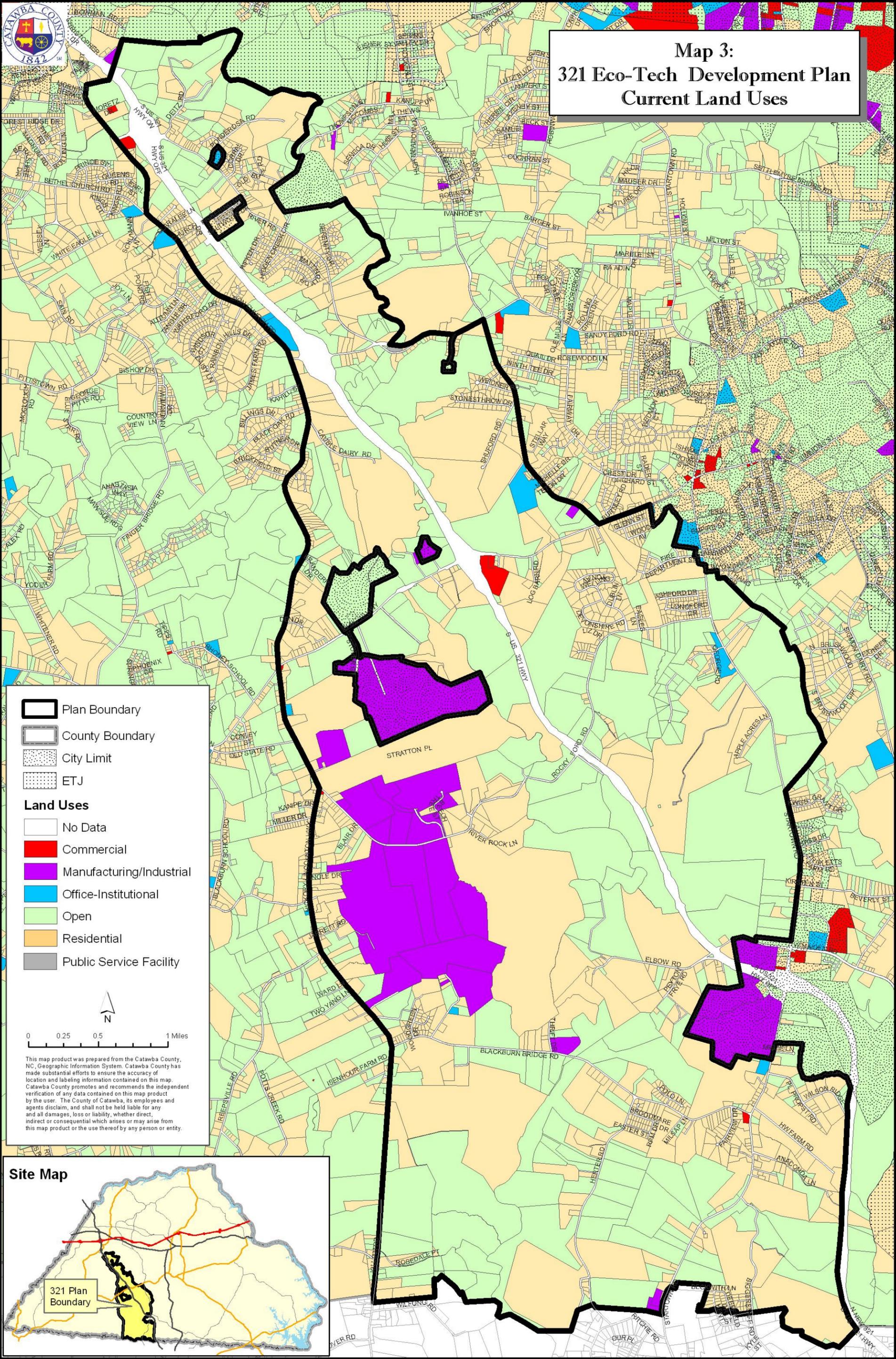


*Street trees along Rocky Ford Road corridor*

- LG-12 Encourage the use of a variety of colors for exterior building facades and the installation and application of “green” concepts.
- LG-13 Encourage the planting of street trees of similar characteristics along both sides of the right-of-way adjacent to the EcoComplex, to provide uniformity and a sense of place.



# Map 3: 321 Eco-Tech Development Plan Current Land Uses



**Legend**

- Plan Boundary
- County Boundary
- City Limit
- ETJ

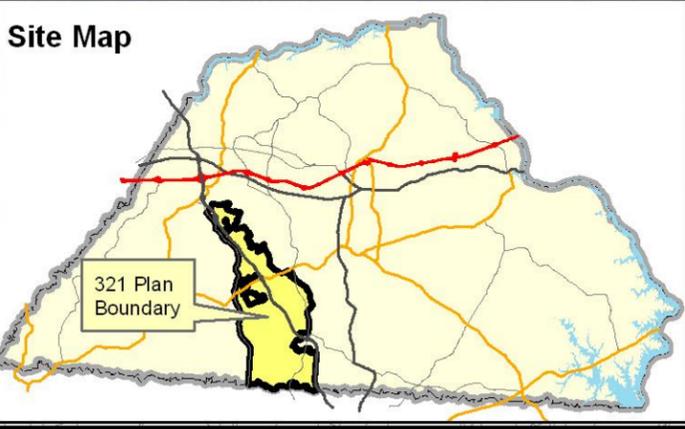
**Land Uses**

- No Data
- Commercial
- Manufacturing/Industrial
- Office-Institutional
- Open
- Residential
- Public Service Facility



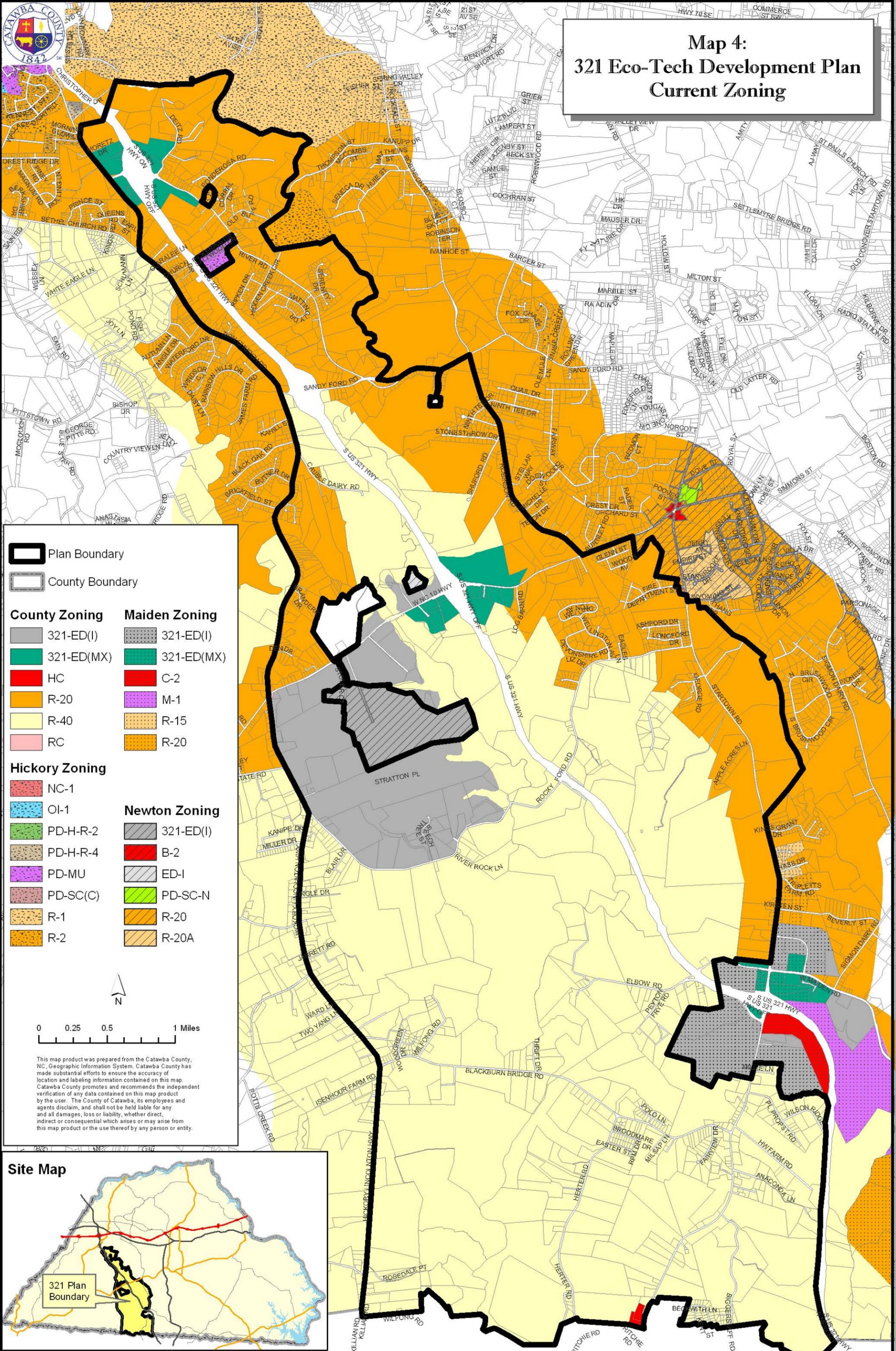
0 0.25 0.5 1 Miles

This map product was prepared from the Catawba County, NC, Geographic Information System. Catawba County has made substantial efforts to ensure the accuracy of location and labeling information contained on this map. Catawba County promotes and recommends the independent verification of any data contained on this map product by the user. The County of Catawba, its employees and agents disclaim, and shall not be held liable for any and all damages, loss or liability, whether direct, indirect or consequential which arises or may arise from this map product or the use thereof by any person or entity.





# Map 4: 321 Eco-Tech Development Plan Current Zoning

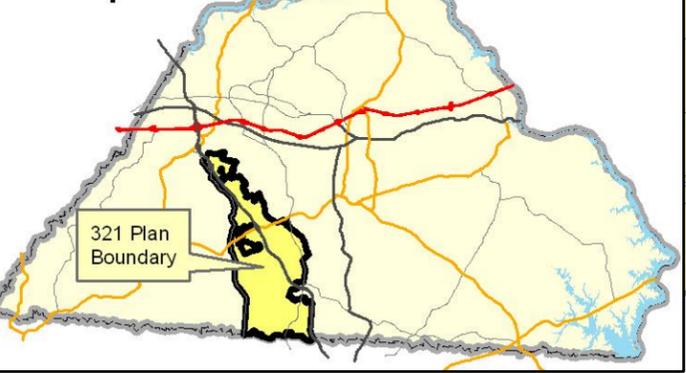


Plan Boundary	
County Boundary	
<b>County Zoning</b>	<b>Maiden Zoning</b>
321-ED(I)	321-ED(I)
321-ED(MX)	321-ED(MX)
HC	C-2
R-20	M-1
R-40	R-15
RC	R-20
<b>Hickory Zoning</b>	<b>Newton Zoning</b>
NC-1	321-ED(I)
OI-1	B-2
PD-H-R-2	ED-1
PD-H-R-4	PD-SC-N
PD-MU	R-20
PD-SC(C)	R-20A
R-1	
R-2	

0 0.25 0.5 1 Miles

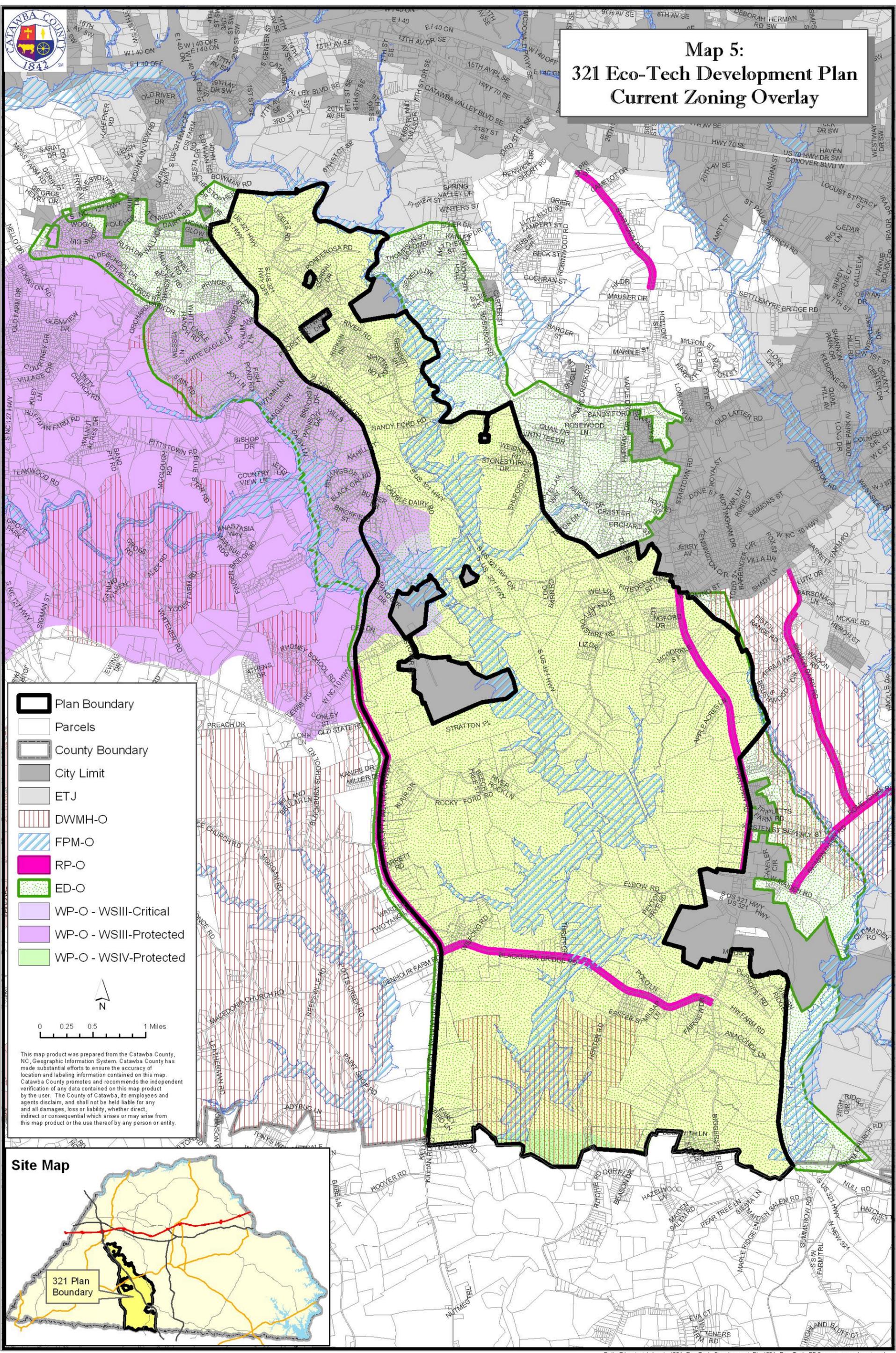
This map product was prepared from the Catawba County, NC, Geographic Information System. Catawba County has made substantial efforts to ensure the accuracy of location and labeling information contained on this map. Catawba County promotes and recommends the independent verification of any data contained on this map product by the user. The County of Catawba, its employees and agents disclaim, and shall not be held liable for any and all damages, loss or liability, whether direct, indirect or consequential which arises or may arise from this map product or the use thereof by any person or entity.

### Site Map

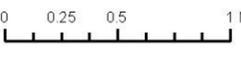




# Map 5: 321 Eco-Tech Development Plan Current Zoning Overlay

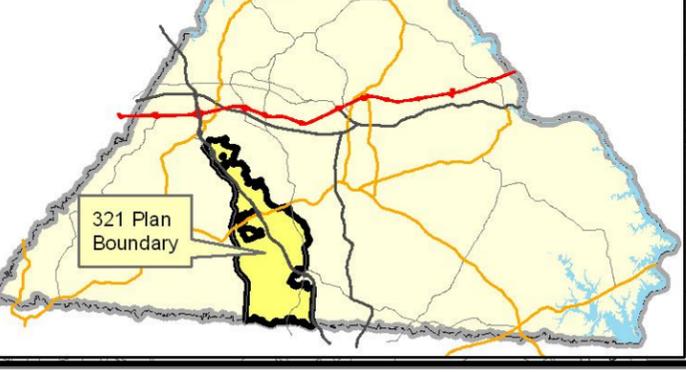


- Plan Boundary
- Parcels
- County Boundary
- City Limit
- ETJ
- DWMH-O
- FPM-O
- RP-O
- ED-O
- WP-O - WSIII-Critical
- WP-O - WSIII-Protected
- WP-O - WSIV-Protected



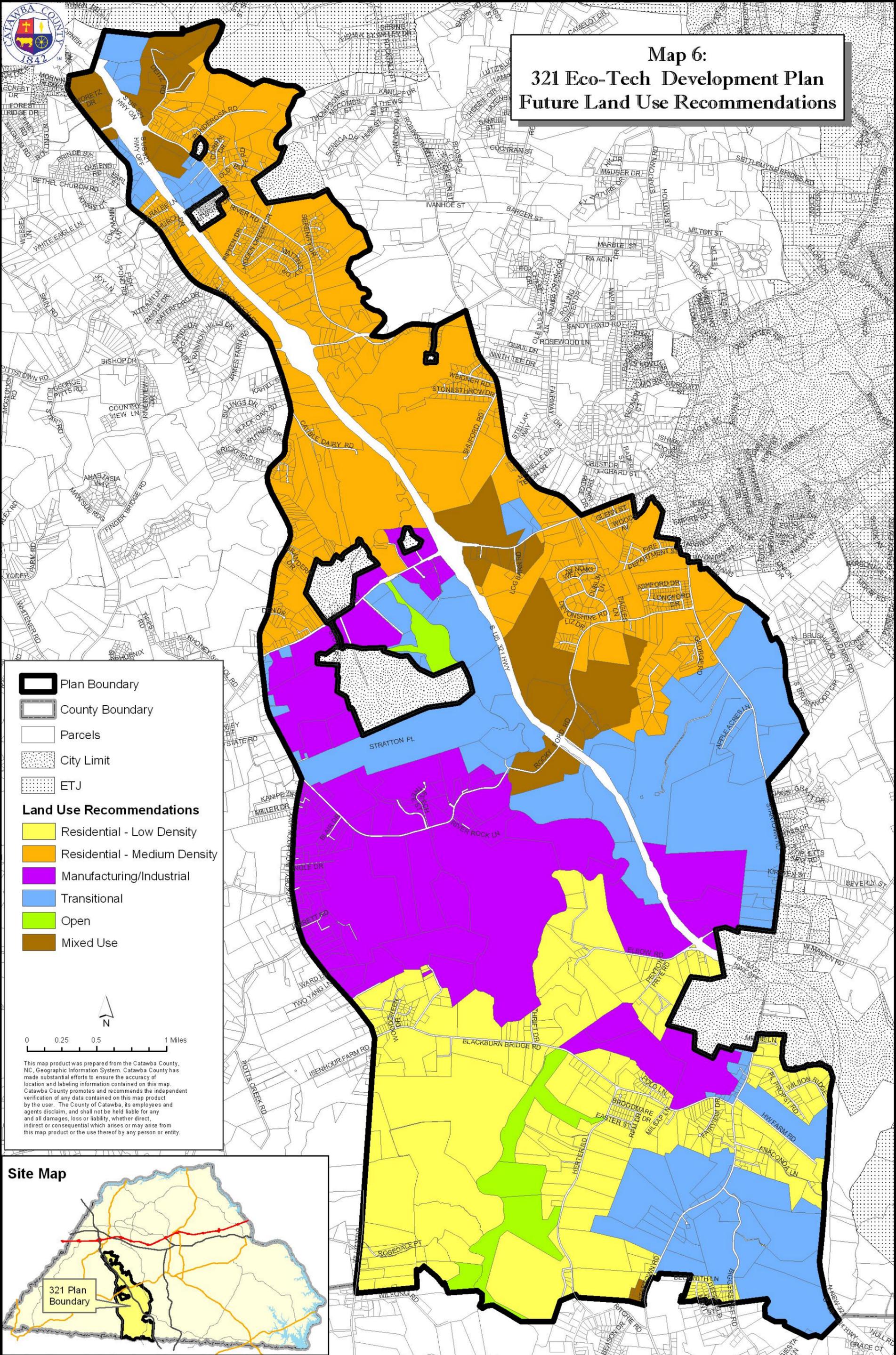
This map product was prepared from the Catawba County, NC, Geographic Information System. Catawba County has made substantial efforts to ensure the accuracy of location and labeling information contained on this map. Catawba County promotes and recommends the independent verification of any data contained on this map product by the user. The County of Catawba, its employees and agents disclaim, and shall not be held liable for any and all damages, loss or liability, whether direct, indirect or consequential which arises or may arise from this map product or the use thereof by any person or entity.

## Site Map





# Map 6: 321 Eco-Tech Development Plan Future Land Use Recommendations



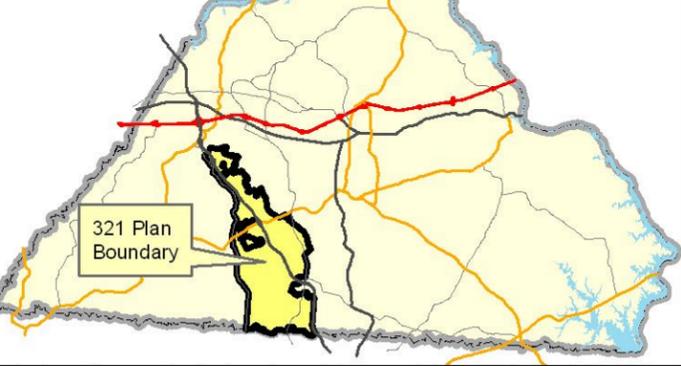
- Plan Boundary
  - County Boundary
  - Parcels
  - City Limit
  - ETJ
- Land Use Recommendations**
- Residential - Low Density
  - Residential - Medium Density
  - Manufacturing/Industrial
  - Transitional
  - Open
  - Mixed Use



0 0.25 0.5 1 Miles

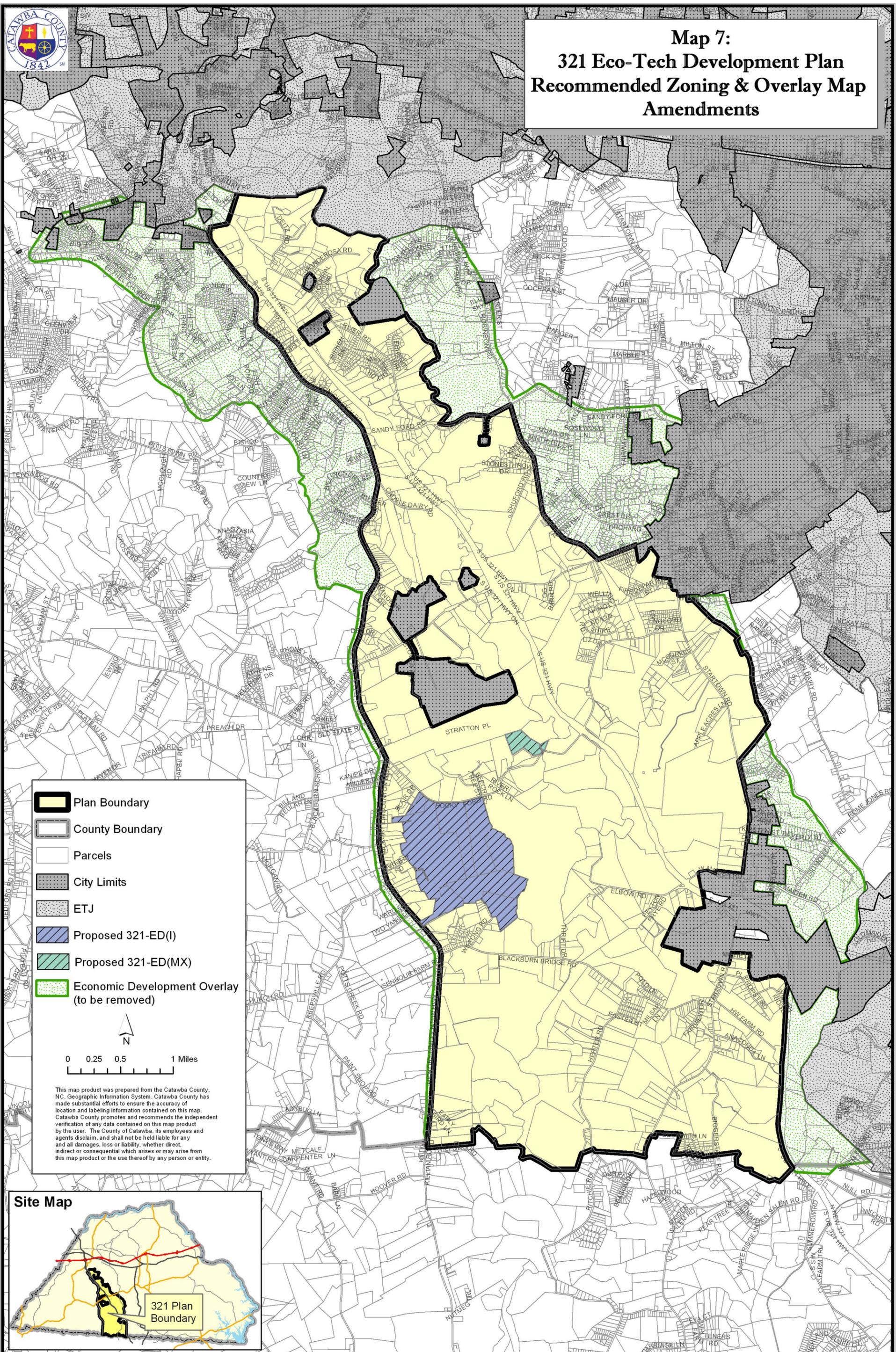
This map product was prepared from the Catawba County, NC, Geographic Information System. Catawba County has made substantial efforts to ensure the accuracy of location and labeling information contained on this map. Catawba County promotes and recommends the independent verification of any data contained on this map product by the user. The County of Catawba, its employees and agents disclaim, and shall not be held liable for any and all damages, loss or liability, whether direct, indirect or consequential which arises or may arise from this map product or the use thereof by any person or entity.

## Site Map

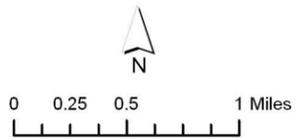




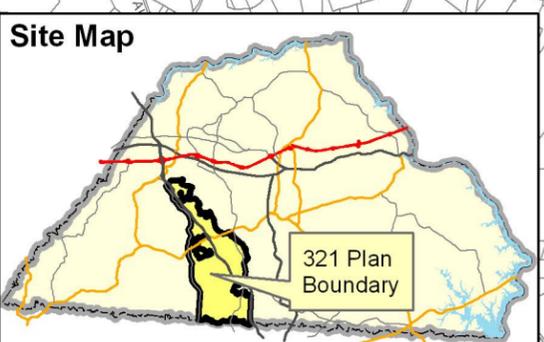
# Map 7: 321 Eco-Tech Development Plan Recommended Zoning & Overlay Map Amendments



- Plan Boundary
- County Boundary
- Parcels
- City Limits
- ETJ
- Proposed 321-ED(I)
- Proposed 321-ED(MX)
- Economic Development Overlay (to be removed)



This map product was prepared from the Catawba County, NC, Geographic Information System. Catawba County has made substantial efforts to ensure the accuracy of location and labeling information contained on this map. Catawba County promotes and recommends the independent verification of any data contained on this map product by the user. The County of Catawba, its employees and agents disclaim, and shall not be held liable for any and all damages, loss or liability, whether direct, indirect or consequential which arises or may arise from this map product or the use thereof by any person or entity.



**Plan Action Strategies (PASs)  
Land Use**

PASs #	CATEGORY	GOAL	LEAD AGENCY	ACTION STEPS	CHAPTER #	PRINCIPAL #	GOAL #	TIMEFRAME	PRIORITY
5	Land Use	Reduce the ED-O Economic Development-Overlay to match the Plan boundary.	Planning	Amend the Official Zoning Overlay Map reflecting the reduction of the ED-O Economic Development-Overlay district to the Plan boundary.	3	LP-4 LP-6	LG-3	6 - 18 Months	H
6	Land Use	Amend zoning map to include the existing EcoComplex in the 321-ED(I) district.	Planning	Rezone R-40 portions of the EcoComplex to 321-ED(I) as depicted on Map 6.	3	LP-6	LG-4	6 - 18 Months	H
7	Land Use	Relax façade treatment regulations in 321-ED(I) districts.	Planning	Amend UDO text to allow metal façades in the 321-ED(I) district along lower classified roadways.	3	LP-7	LG-7	6 - 18 Months	H
8	Land Use	Reduce principal building setbacks from non-residential property lines within the 321-ED(I) district.	Planning	Amend UDO text to reflect reduced principal building setbacks within the 321-ED(I) district.	3	LP-8	LG-8	18 Months - 3 Yrs.	L
9	Land Use	Allow a perimeter buffer waiver option within the 321-ED(I) district.	Planning	Amend UDO text to allow for perimeter buffer options in specific situations within the 321-ED(I) district.	3	LP-8	LG-9	18 Months - 3 Yrs.	L
10	Land Use	Expand permitted uses within the 321-ED(I) and 321-ED(MX) district.	Planning	Amend UDO text to permit data centers, call centers, server farms, computer technical services and truck stops within the 321-ED(I) district and cultural facilities within the 321-ED(MX) district.	3	LP-6	LG-10	6 - 18 Months	H

# Transportation

## ROADS AND HIGHWAYS

The NCDOT Secondary Road system serves the Plan area, except for the federal and state highways, US 321 and NC 10. US 321 is the freeway connecting Hickory south to Gastonia and Charlotte (via I-85) and north to Lenoir and the mountains. NC 10, the other major thoroughfare, bisects the Plan area from east to west.

Average daily traffic counts (number of vehicles per day or ADT) are available for various locations in the Plan area. Data for 2003 through 2009 are actual numbers recorded on site. Traffic projections for 2015, 2025 and 2035 are based on NCDOT modeling. *See Tables 4 and 5: Average Daily Traffic Count.*

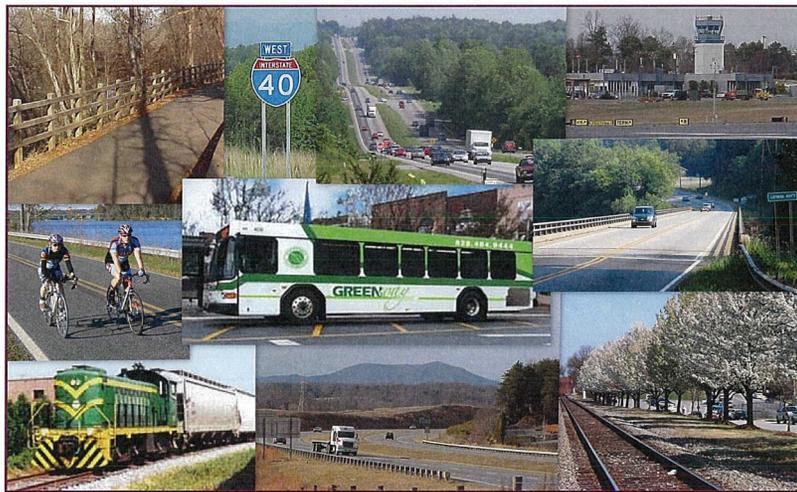
### Transportation

Roads and Highways	1
Pedestrian and Bicycle System	5
Transit System	7
Guiding Principles	7
Plan Goals	8

## 2035 Greater Hickory Urban Area



# Long Range Transportation Plan



<b>Table 4: 321 Eco-Tech Corridor (Northern Portion): Average Daily Traffic Count</b>					
	<b>US 321 (North of River Road)</b>	<b>US 321 (North of NC 10 Inter- change)</b>	<b>River Road— SR 1144 (East of US 321 Inter- change)</b>	<b>Zion Church Road—SR 1008 (South of Sandy Ford Rd)</b>	<b>NC 10 (East of US 321 Interchange)</b>
<b>2003</b>	28,000	25,000	2,600	3,000	9,300
<b>2005</b>	32,000	28,000	2,600	3,200	9,500
<b>2007</b>	33,000	29,000	3,000	3,300	9,900
<b>2009</b>	30,000	27,000	2,100	3,500	9,100
<b>2015</b>	45,900	39,400	4,400	4,200	16,000
<b>2025</b>	58,000	48,500	5,400	6,200	19,500
<b>2035</b>	62,500	51,700	7,100	7,300	20,800

Source: NCDOT AADT Maps, 2003-2009; and 2035 Long Range Transportation Plan (for 2015, 2025 and 2035 projections)

<b>Table 5: 321 Eco-Tech Corridor (Southern Portion): Average Daily Traffic Count 2003-2035</b>					
	<b>US 321 (South of NC 10 Interchange)</b>	<b>NC 10 (East of Hky- Lincolnton Hwy.)</b>	<b>Rocky Ford Rd.—SR 2019 (East of Hky Lincolnton Hwy.)</b>	<b>Hky-Lincolnton Hwy.—SR 1008 (South of NC 10)</b>	<b>Blackburn Bridge Rd.— SR 2021 (east of Hky- Lincolnton)</b>
<b>2003</b>	23,000	8,100	1,200	3,500	1,100
<b>2005</b>	26,000	7,800	N/A	3,500	N/A
<b>2007</b>	25,000	8,400	N/A	4,200	1,100
<b>2009</b>	24,000	7,700	1,600	4,600	1,100
<b>2015</b>	35,700	8,500	N/A	3,600	N/A
<b>2025</b>	46,400	8,900	N/A	5,100	N/A
<b>2035</b>	52,800	11,100	N/A	6,700	N/A

Source: NCDOT AADT Maps, 2003-2009; and 2035 Long Range Transportation Plan (for 2015, 2025 and 2035 projections)

In addition to traffic counts at these locations, NCDOT has two traffic counts in the southern portion of the Plan area, at Startown Road north of West Maiden Road (7,900 vehicles daily in 2009) and on US 321 south of the Startown interchange (26,000 vehicles in 2009).

The 2009 ADT counts generally represent a 5-15% decrease from the 2007 counts, which is representative of the traffic counts found throughout the MPO region. It is thought that the downturn in the economy, with the resulting loss in jobs and reduction in disposable income, is the basis for the decline in the traffic counts.

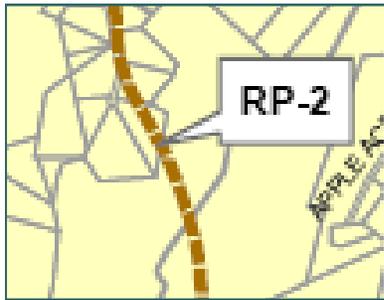
Transportation planning for the US 321 corridor Plan area is coordinated by the Greater Hickory Metropolitan Planning Organization (GHMPO). The GHMPO was created from the Hickory-Newton-Conover MPO when the Hickory urban area expanded after the 2000 Census. Future transportation needs for the US 321 corridor area are included in two different transportation plans: the 2035 Greater Hickory Urban Area Long Range Transportation Plan (2010) and the Thoroughfare Plan for Catawba County (2007).

In March 2010, the MPO's Transportation Advisory Committee adopted a 2035 Long Range Transportation Plan. This Plan is multi-modal and will guide the planning and development of the urban area's transportation systems for a 25-year horizon period. The Transportation Plan covers the entire corridor area but focuses mainly on the urban area north of Rocky Ford Road. The southern portion of the US 321 corridor is included in the County Thoroughfare Plan. Both plans provide recommendations for road improvements in the corridor area which include road widenings, new interchanges along US 321 and construction of new road facilities.

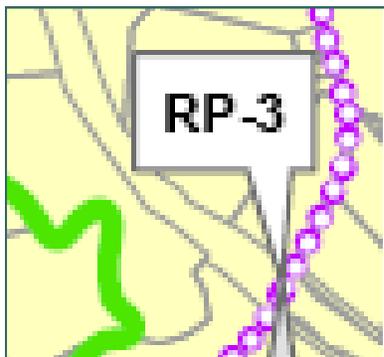
The 2035 Long Range Transportation plan includes several projects that impact the Plan area. Following is a general description of the projects and the funding status which are depicted on *Map 8: Transportation/Multi-modal Recommendations* with a Road Project (RP) reference number that corresponds to the map.

**NC 10 (RP-1):**

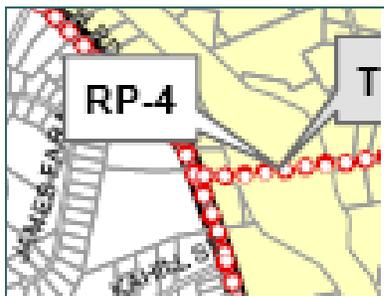
The section between US 321 Business and the US 321 freeway is expected to exceed its capacity for a 2-lane road over the next 25 years. It is recommended that



*Robinson Road Extension*



*Rocky Ford Road Interchange*



*Sandy Ford Road Interchange*

the road be widened to a 4-lane divided boulevard with a grass median. This project is unfunded in the State Transportation Improvement Program (STIP).

**Robinson Road (SR 1146) Extension (RP-2):**

This new 2-lane road will extend southward from a location approximately 2000 feet north of NC 10 and will parallel Startown Road, connecting back to the existing West Maiden Road just west of the West Maiden/Startown Road interchange. The Robinson Road extension project was also included in the County’s Thoroughfare Plan; however, the Startown Small Area Plan recommended the realignment of the road extension to the west of the current alignment and deletion of the portion of the road south of Rocky Ford Road. Although NCDOT has completed a “functional design” based on existing subdivisions, topography and likely road alignment, the project is not yet included in the STIP.

**Rocky Ford Road (SR 2019) Interchange (RP-3):**

This new interchange was first proposed in the Startown Small Area Plan and has been incorporated into the 2009 Long-Range Transportation Plan. In addition to a new interchange, it is recommended to realign Rocky Ford Road and construct a new bridge over the South Fork Catawba River to better accommodate industrial traffic, especially from the County’s EcoComplex. The bridge replacement project is funded in the STIP; however, the realignment and new interchange are unfunded.

**Sandy Ford Road (SR 1143) Interchange (RP-4):**

When right-of-way was secured for the US 321 project, additional right-of-way was acquired for a future interchange at Sandy Ford Road. Currently, there is an at-grade separation at Sandy Ford Road and US 321; however, as growth in the corridor occurs the interchange could be promoted to be constructed. This interchange is not funded in the STIP.

**Sixth Street Extension (RP-5):**

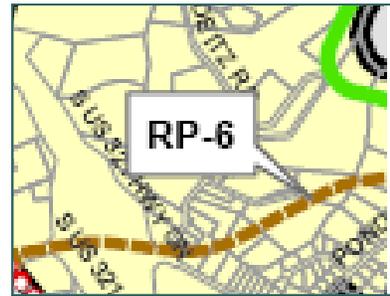
This project is a new road segment extending from Sixth Street in Hickory at its existing location south of Catawba Valley Blvd. to the Southern Corridor near the River Road interchange of US 321. This is an unfunded project in the STIP.

**Southern Corridor (RP-6):**

This corridor is proposed as a 4-lane divided boulevard with a grass median that will be an east-west road network connecting the Mountain View area to Newton. The corridor is proposed to pass through the Plan area at the River Road interchange. The Southern Corridor is included in the STIP but is unfunded at this time.

**Startown Road (SR 1005) (RP-7):**

This major north-south thoroughfare, which forms a portion of the eastern Plan area boundary, is proposed to be widened to a 4-lane divided boulevard with a grass median between NC 10 to US 70. It is an unfunded project in the STIP.



*Southern Corridor*

**PEDESTRIAN AND BICYCLE SYSTEM**

Pedestrian and bicycle system planning for the County has been conducted over the last five years and is formulated in several documents: The Greater Hickory Recreation/Tourism Plan (2006), Catawba County Master Parks and Recreation Plan (2007) and the draft Carolina Thread Trail Master Trail Plan for Catawba County Communities (to be completed in late 2010). These plans have identified several pedestrian and bicycle trail segments within the Plan area:



*Bicycle System*

**Henry Fork Greenway**—This proposed 7-mile greenway parallels the Henry Fork River from the City of Hickory Henry Fork River Regional Park to the City of Newton Jacob Fork Park. This greenway will follow the northeast boundary of the Plan area along the Henry Fork River and will bisect the Plan area just north of the NC 10 interchange.

**Jacobs Fork Greenway**—This proposed 10.8-mile greenway parallels the Jacob Fork River from Camp Creek in the Mtn. View area to the City of Newton Jacob Fork Park. A small portion of the greenway is in the Plan area where the Jacob Fork River confluences with the Henry Fork River at the Jacob Fork Park.



*Trail along the Jacobs Fork*



South Fork River

**South Fork Catawba River Greenway**—This proposed 8.5 mile greenway segment is along the South Fork River corridor from the Jacobs Fork corridor to the Lincoln County line. This entire greenway corridor falls within the Plan area. A portion of the corridor, as identified in the Carolina Thread Trail plan, would be constructed on land owned by the Catawba Lands Conservancy.

**South Fork - Maiden Connector**—This 6.0 mile segment connects the South Fork greenway through the Catawba Lands Conservancy property and the follows Herter Road, Blackburn Bridge Road and Startown Road to West Maiden Road where it joins the sidewalk network in Maiden.

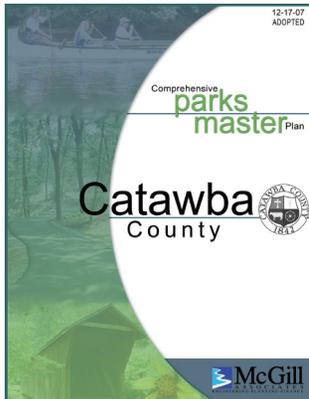


Pedestrian—Sidewalk System

In addition to the trail projects above, the Startown and Mtn. View Small Area plans recommended several on-road bicycle routes throughout the Plan area which have been incorporated into a draft NCDOT Bicycle Route Map. The draft map and signing project, funded by NCDOT, is expected to be completed in 2012.

The proposed pedestrian and bicycle facilities within the Plan area are shown on *Map 8: Transportation/Multi-modal Recommendations*.

In order to implement the planned pedestrian and bicycle facilities, Catawba County’s Unified Development Ordinance requires improvements for new development. Sidewalk construction in new residential development is required when 25 or more lots are proposed within the R-20 or higher density districts. For less dense residential development, open space is required with a portion to be improved with a trail system. In addition, sidewalks are required along the frontage of new residential and non-residential developments on major thoroughfares in urban areas and major collectors or higher road classifications in rural areas. A fee-in lieu of option in place of sidewalk construction or the provision of open space may be allowed by the County. These funds are to be used for installation of sidewalks, trails, bicycle paths or capital projects based upon the identified needs in the County Master Parks and Recreation Plan. The UDO also requires properties zoned 321-ED to provide for pedestrian travel between building clusters within new developments. Bicycle parking facilities are required under the UDO when non-



residential and multi-family developments are located within 500 feet of bicycle corridors in officially adopted bikeway plans.

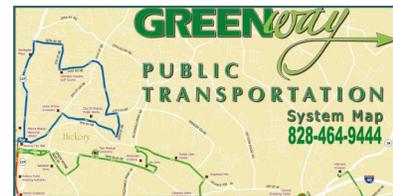
It is now the policy of the MPO and NCDOT to evaluate any new road construction project for potential pedestrian needs (i.e., sidewalks and crossover) and bicycle accommodations. This coordination particularly has been emphasized with the Rocky Ford Road bridge construction project (STIP# B-4458).



*Evaluate Construction Projects*

## **TRANSIT SYSTEM**

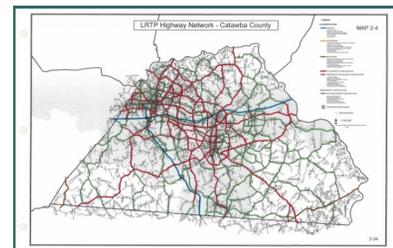
A consolidated public transportation system was established in 2008; whereby, the community transportation network provided by the Piedmont Wagon Transit System was combined with the other Unifour systems to become the Western Piedmont Regional Transit Authority. The new system now operates under the Greenway Public Transportation program providing limited transit services to the Plan area. Vans are available five days per week to transport senior citizens and disabled residents; however, no fixed Greenway routes currently exist in the Plan area.



## **GUIDING PRINCIPLES**

### **ROADS & HIGHWAYS**

- TP-1 Anticipate and plan for growth that will result from road improvements and widening.
- TP-2 Preserve good roads, areas of low traffic and scenic highways.
- TP-3 Coordinate transportation policies with land use policies.
- TP-4 Encourage alternate modes of transportation, including increased use of existing means such as public buses, school buses, railroads, bicycles and pedestrian.
- TP-5 Provide for better connectivity of road systems.



*Long Range Transportation Plan  
Catawba County*

### **PEDESTRIAN SYSTEM**

- TP-6 Provide safe alternatives for pedestrians.



*Bike Lane*



*South Fork River Crossing on Rocky Ford Road*



*Service Road*

### ***BICYCLE SYSTEM***

TP-7 Provide safe options for bicyclists.

### ***TRANSIT SYSTEM***

TP-8 Increase opportunities to link with existing transit routes.

## ***PLAN GOALS***

Catawba County does not maintain roads and therefore the following recommendations will be forwarded to NCDOT or used in area-wide transportation planning. The transportation goals are depicted on *Map 8: Transportation/Multi-modal Recommendations*. Note: A Transportation Goal (TG) reference number is depicted on the map representing specific project sites.

### ***ROADS & HIGHWAYS***

TG-1 Collaborate with NCDOT on Rocky Ford Road bridge replacement, the realignment of Rocky Ford Road, and the new interchange. See *Map 8A: Existing Rocky Ford Road/US 321 Alignment - Bridges* and *8B: Proposed Rocky Ford Road Realignment, US 321 Interchange - Bridge Replacement*.

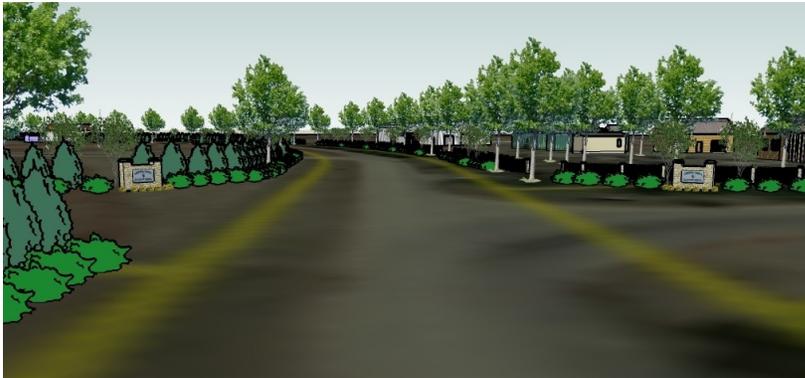
TG-2 Evaluate and aggressively pursue opportunities for NCDOT or special funding to construct the recommended Rocky Ford Road interchange.

TG-3 Re-evaluate the following road improvement projects as part of the MPO planning process:

- Robinson Road Extension
- Sandy Ford Road interchange

TG-4 Evaluate the feasibility of constructing a frontage road system which will serve proposed and future developments that parallel the US 321 corridor. New developments must meet Unified Development Ordinance standards regarding screening and building construction standards preserving viewsheds from the frontage road and US 321. This process will be undertaken by the developer in coordination with NCDOT based

upon a site specific development plan (not depicted on *Map 8*).



*Gateway Corridor into the County's EcoComplex*

- TG-5 Provide a gateway corridor into the County's Eco-Complex along Rocky Ford Road at its eastern and western extents.
- TG- 6 Coordinate with NCDOT to ensure that the necessary turn lanes, acceleration lanes and deceleration lanes are constructed to provide for safe traffic movements (not depicted on *Map 8*).

**PEDESTRIAN AND BICYCLE SYSTEM**

- TG- 7 Pursue Carolina Thread Trail funding and other grant sources to begin the design and construction of the South Fork Catawba River greenway segment.
- TG-8 Promote the Carolina Thread Trail project to prospective industries that are looking to locate in the US 321 corridor.
- TG-9 Challenge existing businesses to be active participants in the development of the Carolina Thread Trail network in the corridor.
- TG-10 Encourage NCDOT to complete the Countywide Bicycle Mapping and Signage project.

**TRANSIT SYSTEM**

- TG-11 Evaluate the inclusion of a "Park and Ride" lot at the US 321 interchanges as new development

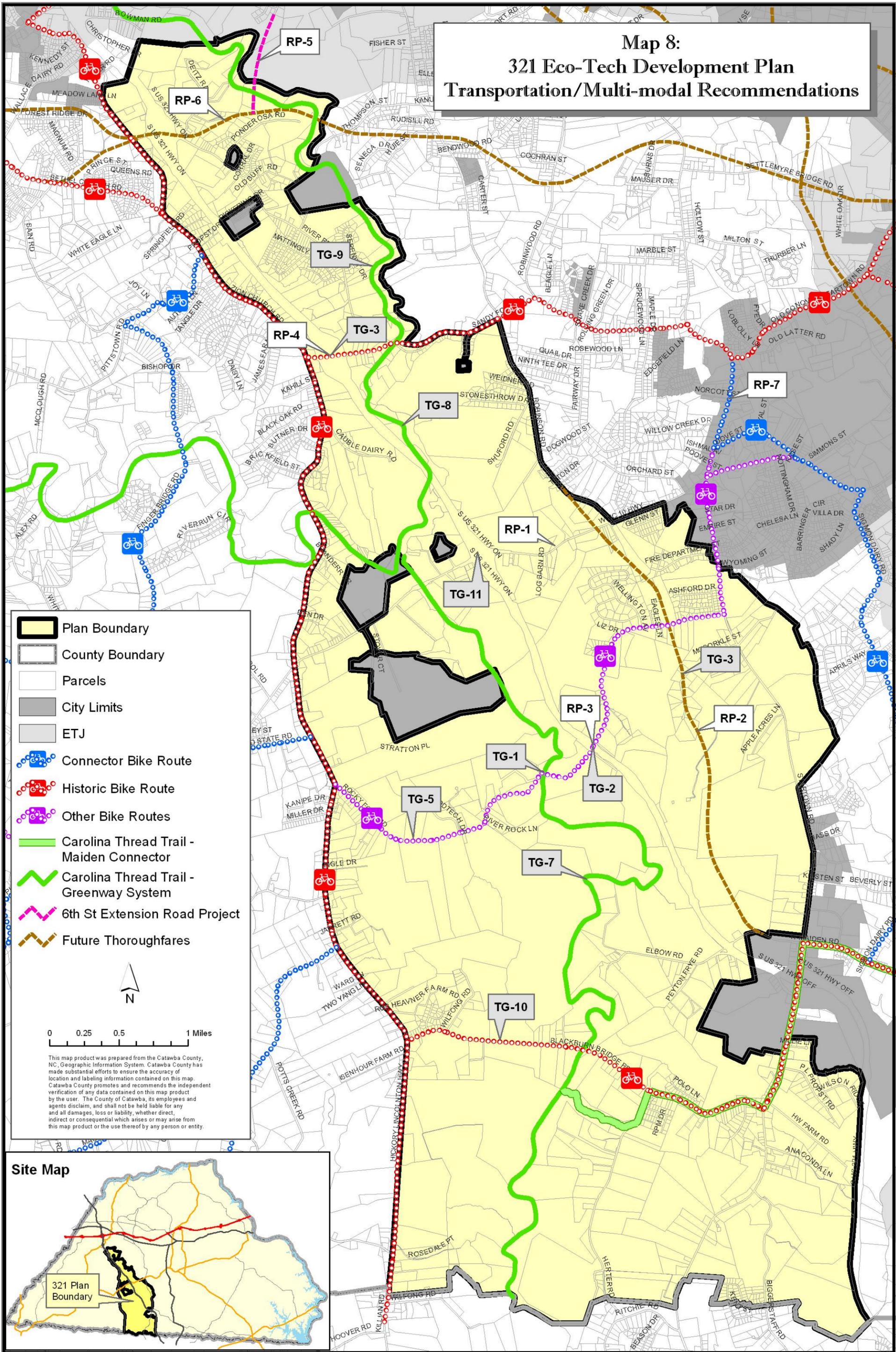


*Greenway transit bus.*

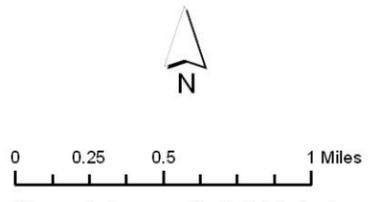
projects are approved.

TG-12 Promote the expansion of the Greenway Public Transportation system to service the area (not depicted on *Map 8*).

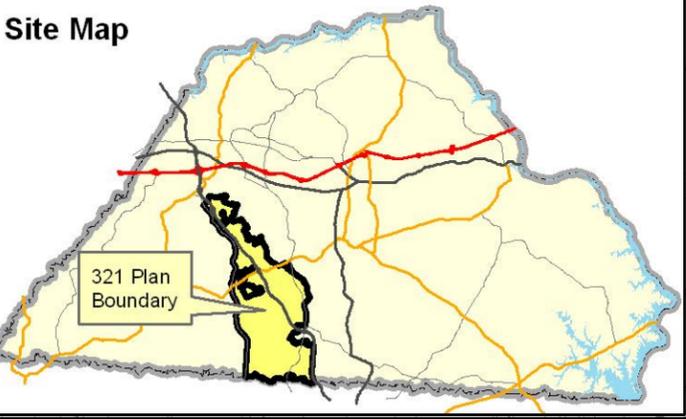
# Map 8: 321 Eco-Tech Development Plan Transportation/Multi-modal Recommendations



- Plan Boundary
- County Boundary
- Parcels
- City Limits
- ETJ
- Connector Bike Route
- Historic Bike Route
- Other Bike Routes
- Carolina Thread Trail - Maiden Connector
- Carolina Thread Trail - Greenway System
- 6th St Extension Road Project
- Future Thoroughfares



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**Plan Action Strategies (PASs)  
Transportation**

PASs #	CATEGORY	GOAL	LEAD AGENCY	ACTION STEPS	CHAPTER #	PRINCIPAL #	GOAL #	TIMEFRAME	PRIORITY
11	Transportation	Ensure that the re-design of the Rocky Ford bridge incorporates the locally preferred option for the realignment of Rocky Ford Road and the new interchange.	Planning	Meet with NCDOT staff directly involved with the design of the Rocky Ford Road bridge to present the locally preferred option. Obtain commitment from NCDOT for the realignment project	4	TP-5	TG-1	6 - 18 Months	H
12	Transportation	Pursue opportunities for NCDOT or special funding to construct the recommended Rocky Ford Road interchange.	Planning and EDC	Meet with NCDOT staff to determine the sources of funding for the Rocky Ford Road interchange. Once defined, lobby for the funding through various agencies such as the MPO, local elected officials, etc.	4	TP-5	TG-2	18 Months - 3 Yrs.	H
13	Transportation	Re-evaluate the costs and benefits of the Sandy Ford Road interchange and Robinson Road extension projects	Planning	Present request for re-evaluation of the Sandy Ford Road interchange and Robinson Road extensions projects through the MPO during its Comprehensive Thoroughfare Planning process.	4	TP-1	TG-3	18 Months - 3 Yrs.	L
14	Transportation	Evaluate the feasibility of constructing a frontage road system which will serve proposed and future developments that parallel the Hwy. 321 corridor	Planning	Work with NCDOT to evaluate the potential for a frontage road system paralleling Hwy. 321 based upon topography, land ownership, connection points, etc. to be constructed as development occurs.	4	TP-3	TG-4	6 - 18 Months	M
15	Transportation	Provide a gateway corridor into the County's EcoComplex along Rocky Ford Road at its eastern and western extents	Planning and Utilities & Engineering	Identify potential grant sources to develop a gateway corridor with consistent signage and landscaping along the County's EcoComplex frontage on Rocky Ford Road	4	TP-2	TG-5	6 - 18 Months	H
16	Transportation	Coordinate with NCDOT to ensure that the necessary turn lanes, acceleration lanes and deceleration lanes are constructed for large-scale non-residential development	Planning	When discussions are being held with developers for new projects in the corridor, contact NCDOT to begin conversations on the required entrance improvements .	4	TP-2	TG-6	Ongoing	H
17	Transportation	Pursue Carolina Thread Trail funding and other grant sources to begin the design and construction of the South Fork Catawba River greenway segment.	Planning	Submit a grant application to Carolina Thread Trail for the design of the South Fork Catawba River greenway segment.	4	TP-4	TG-7	6 - 18 Months	H
18	Transportation	Promote the Carolina Thread Trail project to prospective industries that are looking to locate in the Hwy. 321 corridor.	Planning and EDC	Distribute information through traditional and social media outlets about the County Thread Trail routes to prospective industries looking to locate in the corridor to impress upon the importance of the quality of life characteristics of the area.	4	TP-4	TG-8	Ongoing	M
19	Transportation	Challenge existing businesses to be active participants in the development of the Carolina Thread Trail network in the corridor	Planning, EDC, and Convention Visitors Bureau	Prepare a brochure highlighting priority Thread Trail routes in the County which can be distributed to local businesses and industries. Distribute information through traditional and social media and make presentations to various civic groups which will provide additional outreach to business owners in the area and help advertise ways that their business can contribute to the construction of the Thread Trail.	4	TP-4	TG-9	Ongoing	M
20	Transportation	Encourage NCDOT to complete the Countywide Bicycle Mapping and Signage project	Planning	Contact NCDOT staff responsible for completing the bicycle mapping and signage project to stress the importance of the completion of the project. Provide additional resource materials, such as the Thread Trail Master Plan, to show the local commitment to the project.	4	TP-4	TG-10	6 - 18 Months	M
21	Transportation	Evaluate the inclusion of "Park and Ride" lots at the Hwy. 321 interchanges	Planning	Meet with the Transit Authority to determine the best locations for Park and Ride lots at the Hwy. 321 interchanges. Then require the construction of Park and Ride lots upon approval of large-scale developments at the Hwy. 321 interchanges.	4	TP-4	TG-11	5 - 10 Years	L

**Plan Action Strategies (PASs)  
Transportation**

<b>PASs #</b>	<b>CATEGORY</b>	<b>GOAL</b>	<b>LEAD AGENCY</b>	<b>ACTION STEPS</b>	<b>CHAPTER #</b>	<b>PRINCIPAL #</b>	<b>GOAL #</b>	<b>TIMEFRAME</b>	<b>PRIORITY</b>
22	Transportation	Promote the expansion of the Greenway Public Transportation system to service the area	Planning	Meet with the Transit Authority to evaluate routes in the Hwy. 321 corridor as growth occurs to develop new routes to service the area.	4	TP-4	TG-12	5 - 10 Years	L

# Public Services and Community Facilities

Public Services and  
Community  
Facilities

Schools	1
Libraries	3
Public Safety	4
Water Service	5
Sewer Service	5
Electric Service	5
Natural Gas	5
Guiding Principles	6
Plan Goals	6

## Schools

The Plan study area includes portions of the Startown, Blackburn, Maiden, and Mt. View Elementary School districts. Students in the western portion of the study area are currently assigned to Blackburn or Mountain View Elementary, and later attend Jacobs Fork Middle School and Fred T. Foard High School. Elementary students in the eastern portion of the Plan area are currently assigned to Maiden and Startown Elementary, and later attend Maiden Middle School and Maiden High School. *See Map 9: Existing Public Use Facilities.*



In 1999, the Catawba County, Hickory, and Newton-Conover Schools systems commissioned the Western Piedmont Council of Governments to develop the *Catawba County Growth Estimation Model*. This model identified and examined various factors and trends that impact student population and helps plan for future school facilities. This model was updated in 2010.

### STARTOWN ELEMENTARY SCHOOL

Data for the *Catawba County Growth Estimation Model* (2010) shows that the student population at Startown Elementary School remains under building capacity (715 students) since 2009 and will remain near capacity until 2016.

### **BLACKBURN ELEMENTARY**

Data for the *Catawba County Growth Estimation Model* (2010) shows that the student population at Blackburn Elementary School has exceeded building capacity (695 students) since 2009 and will remain over capacity until 2016.

### **MOUNTAIN VIEW ELEMENTARY**

Data for the *Catawba County Growth Estimation Model* (2010) shows that the student population at Mountain View Elementary School remains under building capacity (757 students) since 2009 and will remain under capacity until 2016.

### **MAIDEN ELEMENTARY**

Data for the *Catawba County Growth Estimation Model* (2010) shows that the student population at Maiden Elementary School remains under building capacity (616 students) since 2009 and will remain under capacity until 2016.

The Catawba County School System is currently planning for an additional elementary school within the Fred T. Foard High School district. The new school will help address the capacity issues at the other schools within that district including Banoak Elementary, which is not located within the Plan boundary. The timeframe for constructing the new school has yet to be added to the capital improvement plan.

In order to accomplish certain principles and recommendations identified in the Startown and Mountain View Small Area Plans, the Catawba County School System should consider the Community Oriented Schools concept, explained below, as it sites this new elementary school.

### **COMMUNITY ORIENTED SCHOOLS**

In the early part of the twentieth century urban centers were rapidly developing. Schools were often the center of communities where a variety of services and amenities were in close proximity to high-density residential neighborhoods. As the country developed, suburban sprawl became a trend that helped to undermine tradi-

*“If you are  
planning for a  
year,  
sow rice;  
if you are  
planning for a  
decade,  
plant trees;  
if you are  
planning for a  
lifetime,  
educate people”*

*- Chinese Proverb*

tional neighborhood design. The introduction of the automobile led to a more mobile society and was a major factor contributing to the development of rural communities. This concept of neighborhood schools being the center of activity played less of a role as a catalyst for growth and activity.

The Community Oriented Schools concept helps to recapture the traditional neighborhood design. It encourages educational facilities to be established using smart growth principals. This model calls for smaller schools that fit into the neighborhoods they serve, encourages community involvement at the planning stage, enables schools to act as a neighborhood anchor, and provides after hours community facilities and activities. This approach also provides opportunities for multi-use campuses with public/private services such as, a daycare, library, public safety, parks and recreation facilities, located on the same tract of land or in close proximity to the school. While traditional neighborhood schools were historically developed in urban areas, many of the principles can work around the fringes of urban centers where public infrastructure, higher density, and mixed-use development are planned.



*Community Oriented School Design*

## **LIBRARIES**

Catawba County operates a well-established library system. The Catawba County Library System operates one

central library, a law library and six branch libraries. The Plan area is served by three branches. The main Newton library and the Maiden branch serve the eastern portion of the study area. The Southwest branch is located in the Westover Plaza in Mountain View on Highway 127 and serves the western portion of the Plan area. The Library Master Plan (2001) does not call for any additional library branches to be located within the Plan boundary.



## ***PUBLIC SAFETY***

### ***EMERGENCY MEDICAL SERVICES***

Although an EMS base is not located within the study area, three bases respond to calls within the Plan area. The Propst Crossroads Base is located at the intersection of NC Highway 10 and NC Highway 127. This base responds to calls for the southwestern portion of Catawba County. The Newton base, located in southern Newton off US Highway 321-Business, and the Hickory Base located southern Hickory off of Lenoir Rhyne Boulevard also serves the study area.



### ***LAW ENFORCEMENT***

The Catawba County Sheriff's Department serves the plan area. The patrol division is made up of thirty-six officers among four shifts. The Sheriff's Department also operates a jail and maintains security for the court system in Catawba County. Crime prevention, investigations and civil enforcement are other functions conducted by the Sheriff's Department.

### ***FIRE PROTECTION***



Fire protection Plan study area is provided four fire stations. The north area from plan boundary to Sandy Ford Road is served by the Mountain View Volunteer Fire Department. The Propst Volunteer Fire Department serves the western portion of the plan area with the Jacobs Fork and South Fork serving as the approximate boundary. The Newton Fire Department serves the eastern portion of the study area from Sandy Ford Road to Rocky Ford Road, east of the rivers. The Maiden Volunteer Fire Department serves the area south of Rocky Ford Road and east of the South Fork River to the County line.

## **WATER SERVICE**

The City of Hickory, City of Newton, Town of Maiden and Catawba County have provided water service to areas within the Plan area. In some cases, the County pays for construction of the water lines while the municipalities maintain the lines. In such cases, revenues are shared between the County and the respective municipality. The major water lines in the Plan area extend along Startown Road, NC Highway 10 and Hickory-Lincolnton Highway. There is also a water line extension project that will add water lines to Blackburn Bridge Road to create a water service loop with the City of Hickory to provide better water service to the area. *See Map 10: Existing/Proposed Utilities.*

## **SEWER SERVICE**

Sewer service is not available in most of the Plan area; however, the City of Hickory, City of Newton and the Town of Maiden have sewer lines in close proximity to the planning area. The City of Hickory operates a sewer line which extends into the northeastern section of the Plan area. The City of Newton has extended a sewer line along NC Highway 10 and south along Hickory-Lincolnton Highway, a line that is owned by the County serving the Eco-Complex. The municipalities have long-range plans to extend sewer service into various parts of the Plan area. *See Map 10: Existing/Proposed Utilities.*

## **ELECTRIC SERVICE**

Electrical services in the Plan area are provided by Rutherford Electric and Duke Energy. The City of Newton and Town of Maiden are electric cities that also provide electric service in and around the Plan area.

## **NATURAL GAS**

Piedmont Natural Gas provides natural gas utilities in the area. There is a line along Highway 10 west of 321 and there is a trunk line located just outside the eastern boundary of the Plan area. *See Map 10: Existing/Proposed Utilities.*

## ***GUIDING PRINCIPLES***

### ***SCHOOLS***

- PP- 1 Plan to accommodate student enrollment growth.
- PP- 2 Plan for community-based, neighborhood schools.

### ***LIBRARIES***

- PP- 3 Maintain adequate level of library services for the community.
- PP- 4 Encourage continued cooperation with municipalities.

### ***WATER/SEWER SERVICES***

- PP-5 Provide water and sewer services in higher density areas in close proximity to existing municipal boundaries. (Note: As new development occurs in high-density areas, developers are required to extend utility lines based upon the County's Water and Sewer Availability Ordinance.)
- PP-6 Take a cooperative regional approach to planning of future water and sewer infrastructure.

### ***EMERGENCY SERVICES***

- PP-7 Maintain existing levels of service and expand those services as demand requires.
- PP-8 Consider ways to expand emergency facilities by locating them with existing or future public facilities.

## ***PLAN GOALS***

### ***SCHOOLS***

- PG-1 Base the development of new school facilities upon the Community Oriented Schools approach using a collaborative process involving the community, key stakeholders, and officials.

PG- 2 Consider alternative school financing and ownership models.

### **LIBRARIES**

PG-3 Explore options for locating public library facilities on school sites, other public facility sites (such as emergency services sites or parks), or partnering with private development.

### **WATER/SEWER SERVICES**

PG-4 Major utility expansions in high-density areas, as indicated on *Map 6: Future Land Use Recommendations*,” should have a priority. As new development occurs in high-density areas, developers are required to extend utility lines based upon the County’s Water and Sewer Availability Ordinance.

PG-5 Partner with municipalities to provide utilities that are consistent with adopted land use plans and “smart growth” principles.

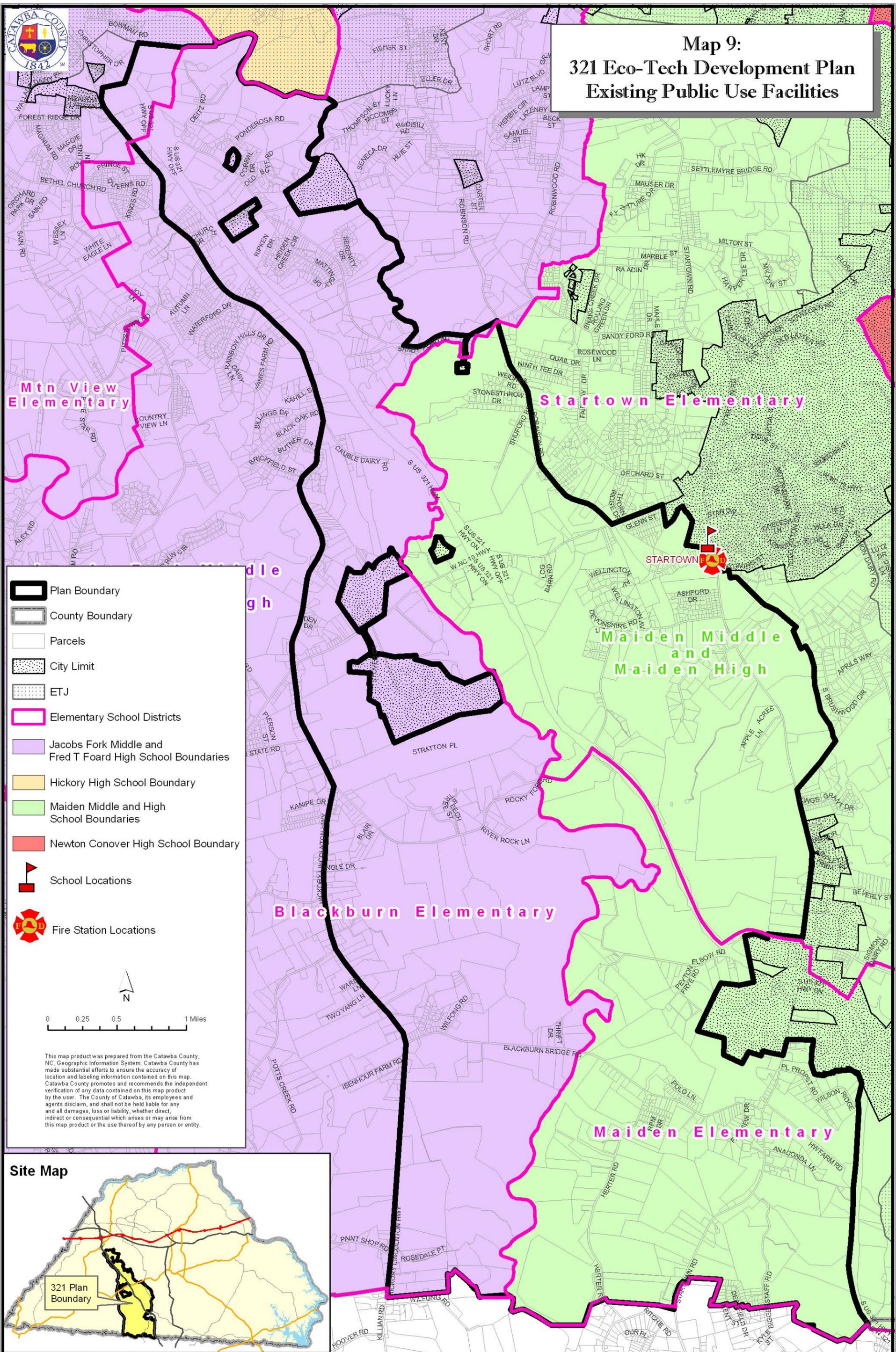
PG-6 Partner with the municipalities to identify utility service boundary areas within the plan area to avoid the duplication of services.

### **NATURAL GAS**

PG-7 Encourage the extension of natural gas lines to the Eco-Complex.



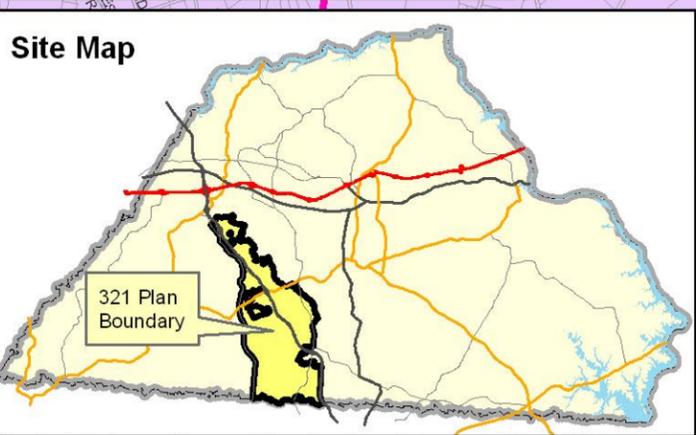
# Map 9: 321 Eco-Tech Development Plan Existing Public Use Facilities

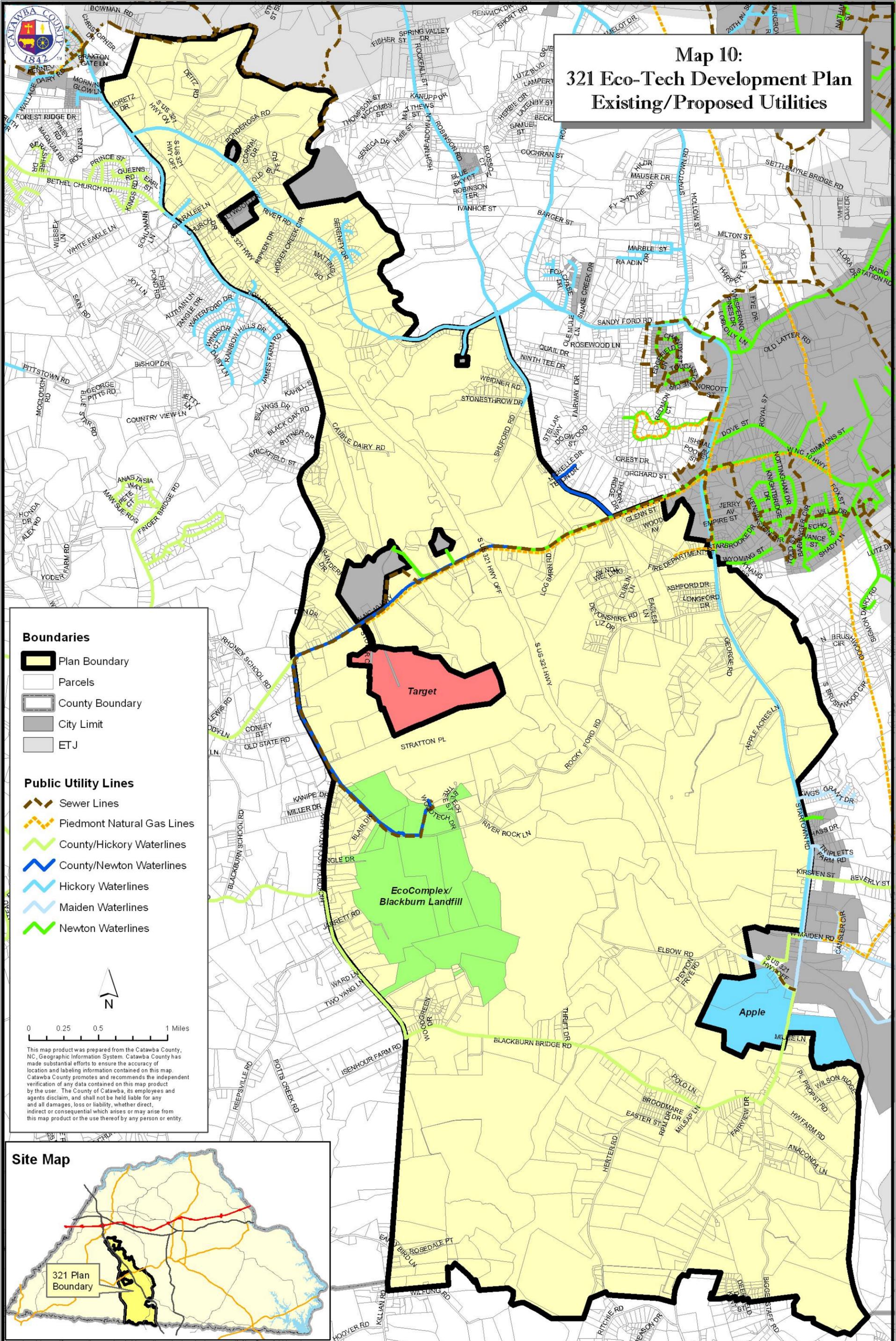


- Plan Boundary
- County Boundary
- Parcels
- City Limit
- ETJ
- Elementary School Districts
- Jacobs Fork Middle and Fred T Foard High School Boundaries
- Hickory High School Boundary
- Maiden Middle and High School Boundaries
- Newton Conover High School Boundary
- School Locations
- Fire Station Locations

0 0.25 0.5 1 Miles

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# Map 10: 321 Eco-Tech Development Plan Existing/Proposed Utilities

### Boundaries

- Plan Boundary
- Parcels
- County Boundary
- City Limit
- ETJ

### Public Utility Lines

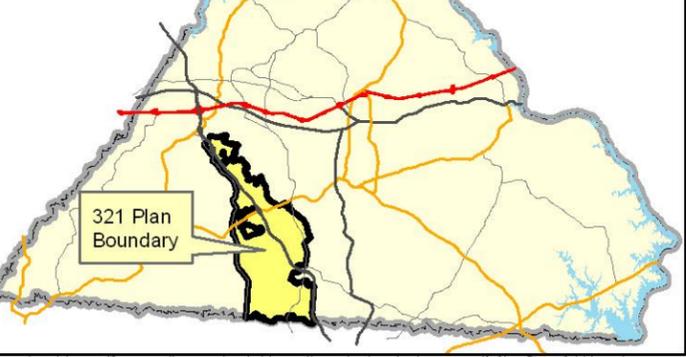
- Sewer Lines
- Piedmont Natural Gas Lines
- County/Hickory Waterlines
- County/Newton Waterlines
- Hickory Waterlines
- Maiden Waterlines
- Newton Waterlines



0 0.25 0.5 1 Miles

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### Site Map



**Plan Action Strategies (PASs)  
Public Services**

PASs #	CATEGORY	GOAL	LEAD AGENCY	ACTION STEPS	CHAPTER #	PRINCIPAL #	GOAL #	TIMEFRAME	PRIORITY
23	Public Services	New school location should be based on the Community Oriented School approach that can accommodate other public and/or private service facilities in a multi-use campus.	Catawba County Schools and Planning	Prepare a community impact analysis to determine the feasibility of locating a new Community Oriented school within the Plan boundary.	5	PP-2 PP-3 PP-8	PG-1 PG-3	6 - 18 Months	H
24	Public Services	Consider alternative school financing and ownership models.	Catawba County Schools	Explore the feasibility of funding and ownership options for constructing and managing school facilities, onsite recreational facilities, and other public and private services.	5	PP- 2	PG-2	Ongoing	M
25	Public Services	Partner with municipalities to indentify service boundary areas for public utilities.	City of Hickory, City of Newton, Town of Maiden, and Catawba County	Adopt a utility service boundary agreement between the Cities and Town.	5	PP-6	PG-6	6 - 18 Months	H

# Natural Resources and Open Space

## NATURAL RESOURCES

Two major rivers run through the Hwy. 321 study area and affect not only the quality of the surface water but have important cultural and historic ties to the community. The headwaters of the Henry Fork and Jacob Fork Rivers rise in the South Mountains and drain east into the Hwy. 321 corridor area. The Henry Fork and Jacob Fork join near the US Highway 321 interchange at NC Highway 10 and flow south as the South Fork of the Catawba River. Considerable land bordering these rivers is floodplain, limiting its development but providing natural habitat for fish, birds, small mammals as well as trees and flowering plants. The floodplain also offers good opportunities for passive recreational activities, such as hiking, canoeing and picnicking. *See Map 11: Natural Resources.*



*Jacob Fork River*

### Natural Resources and Open Space

Natural Resources	1
Open Space	2
Recreational Opportunities	3
Guiding Principles	4
Plan Goals	4

To protect water quality, the State of North Carolina enacted the Water Supply Watershed Protection Program in 1989. The program requires all local governments with land use planning jurisdiction in designated watersheds to administer a Water Supply Watershed Protection Ordinance to protect surface drinking water. The Jacob Fork is the source for Newton’s water supply and, as a result, a small portion of the study area surrounding the Newton water intake falls within the WS-III Watershed. Another small portion of the SAP boundary along the South Fork is located within the WS-IV Watershed, which drains south into Lincoln County.

Development within the WS-III Critical Area surrounding the Newton water intake is limited to one house per acre for single-family development. Multi-family and non-residential development, where permitted, is allowed to cover 12% of the lot area with impervious material such as asphalt, gravel and buildings. The WS-III Protected Area allows one



*Multi-family development.*

house per half acre for single-family development. Multi-family and non-residential development is limited to 24% lot coverage or 70% impervious surface if a “5%/70% Bonus” permit is approved by the Catawba County Board of Adjustment.

The WS-IV Protected Area in the southern portion of the Hwy. 321 corridor area requires 15,000 square-foot lots when curb and gutter is not used, and public water or sewer service are provided. When no public utilities (water and sewer) or curb and gutter are installed, lots cannot be smaller than one-half acre. Multi-family and non-residential uses, where permitted, are limited to 24% impervious coverage of the lot with curb and gutter and 36% without curb and gutter. Within the Protected Area, planned developments may use the high-density option of 70% impervious coverage with stormwater controls.



### **OPEN SPACE**

The Catawba Lands Conservancy has been an active participant in preserving open space along the South Fork Catawba River. The organization now owns or partially owns over 3,000 acres in Catawba, Lincoln and Gaston Counties. Currently, the Catawba Lands Conservancy has two projects in the Hwy. 321 corridor area. A 66-acre tract, part of the historic Oakwood Farm, was donated to the organization in 2003. At least one other landowner of the former Oakwood Farm has placed his land in a conservation easement and is the process of restoring the historic buildings on the property. Eventually, the farm may be opened to the public as a historical and educational resource. Further south, the Catawba Lands Conservancy owns 310 acres, a portion of which was known informally as the Viles Farm, which received a Clean Water Management Trust Fund grant to preserve water quality along the South Fork.



*Rural countryside*

Besides protected watersheds and undeveloped land along the area’s creeks, another significant natural feature is the rural, undeveloped land that still remains in the southern portion of the corridor. Considerable acreage simply remains as undeveloped woodland and open fields. In order to help preserve these agricultural and forest lands, the County developed a Voluntary Agricultural District (VAD) program in 2008. The program allows landowners to voluntarily enter their property

into an agricultural district which recognizes the property as farmland and commits the landowner to retain the property as active agricultural land. In exchange, signs are located on the farmland which identifies the property as an agricultural district and notice is provided through the County’s land records system (GIS) which identifies the approved districts and land in proximity to the districts. Within the study area there are 15 tracts of land in agricultural districts, comprising 716 acres. Of the total acreage, 57 acres are in the enhanced district program which commits the landowner to a 10-year irrevocable conservation agreement. An additional 3,272 acres in the corridor could qualify for the agricultural district program since they are in the County’s present use tax value program (one of the qualifications for the VAD program).



*Farm in Voluntary Agricultural District*

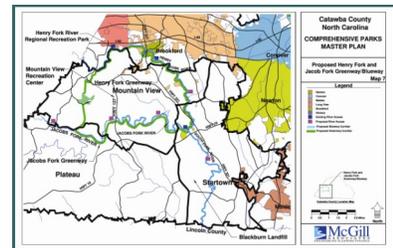
## **RECREATIONAL OPPORTUNITIES**

The City of Newton has completed the initial phase of developing Jacob Fork Park and Canoe Launch. The recreational facility is a 100-acre park located along NC Highway 10, just west of US Highway 321, at the point where the Jacob Fork and the Henry Fork Rivers join to form the South Fork of the Catawba. The Park currently includes two softball fields, bleachers, dugouts, a concession building, restrooms, and paved parking lots. Future plans include lighting the softball fields, developing two soccer fields, constructing a picnic shelter with restrooms, a playground area, and walking and bicycle trails. The park will enable people to enjoy the Jacob Fork River for active and passive recreation.



*City of Newton's Jacob Fork Park*

Catawba County’s Comprehensive Parks Master Plan recommends formalizing the Henry Fork and Jacobs Fork blueway systems through the establishment of canoe access points along the rivers. Within the study area, the Henry Fork blueway is proposed to have an access point at Sandy Ford Road and the Jacob Fork River blueway would use the canoe access point at the City of Newton’s Jacob Fork Park. An additional upstream access point for the Henry Fork blueway is at the City of Hickory’s Henry Fork River Regional Park. Proposed access points are planned for the Jacob Fork blueway at Old Shelby Road, Hwy. 127 and Finger Bridge Road. The South Fork blueway, which will be approximately 8.6 miles within the study area, is proposed to have access points at the Rocky Ford Road and



*Henry Fork and Jacob Fork Greenway Plan*



Canoe Access at Riverbend Park



Farmland Viewshed



Catawba River Greenway—  
Morganton, NC

Blackburn Bridge Road bridge crossings. In addition to providing access points and parking for the blueway system, the sites will allow an opportunity for individuals to access the rivers' proposed greenway network (See the Transportation - Pedestrian and Bicycle System section).

In addition to the passive recreational opportunities offered by the floodplain along the rivers and active opportunities available at Jacobs Fork Park, other unique recreational opportunities exist within proximity of the Study Area. For example, the Optimist Club is very active in the community and offers youth basketball, baseball and football at Startown Elementary School.

## ***GUIDING PRINCIPLES***

### ***NATURAL RESOURCES AND OPEN SPACE***

- NP-1 Preserve ample open space for future generations.
- NP-2 Encourage conservation easements or greenways along the Henry and Jacob Fork Rivers and the South Fork of the Catawba River.
- NP- 3 Assist farmers/property owners desiring to maintain the agricultural or open space use of their property

### ***RECREATION OPPORTUNITIES***

- NP-4 Provide adequate recreational opportunities, both active and passive, for all segments of the population.
- NP-5 Encourage innovative ideas to create new recreational opportunities.
- NP-6 Utilize rivers for environmentally sound recreational activities

## ***PLAN GOALS***

### ***NATURAL RESOURCES AND OPEN SPACE***

- NG-1 Contact farmers in the study area who qualify for

the Voluntary Agricultural District program to educate and encourage them to participate.

NG-2 Evaluate new opportunities for farmers to participate in the EcoComplex facility which can provide a market for their products; thereby, allowing them to remain active in farming. This may include creating incubator plots at the EcoComplex which would allow new and/or young farmers to become established in agribusiness.

NG-3 Collaborate with the Catawba Lands Conservancy on additional land preservation opportunities along the South Fork Catawba River. This will help implement the blueway and greenway components of the County's Parks Master Plan and Carolina Thread Trail Master Plan while preserving open space and wildlife corridors.



*Sunflowers grown at EcoComplex*

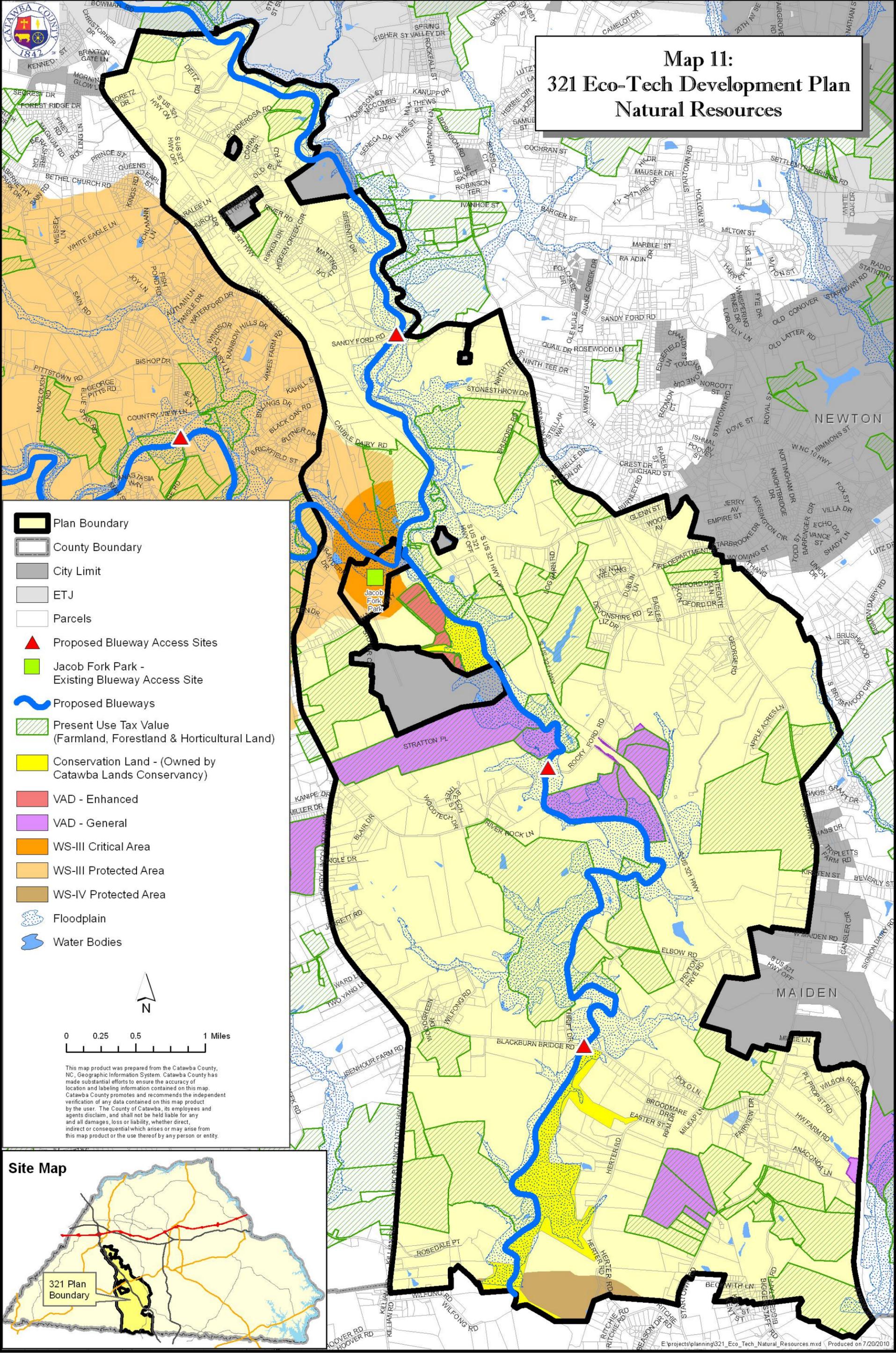
### **RECREATION OPPORTUNITIES**

NG-4 Pursue grants to develop the blueway access points listed in the County's Comprehensive Parks Master Plan.

NG-5 Conduct outreach to Lincoln County and the other downstream jurisdictions that link to the U.S. National Whitewater Center in order to discuss establishing a connected blueway system that will benefit the region.



*Kayaks at U.S. National Whitewater Center*



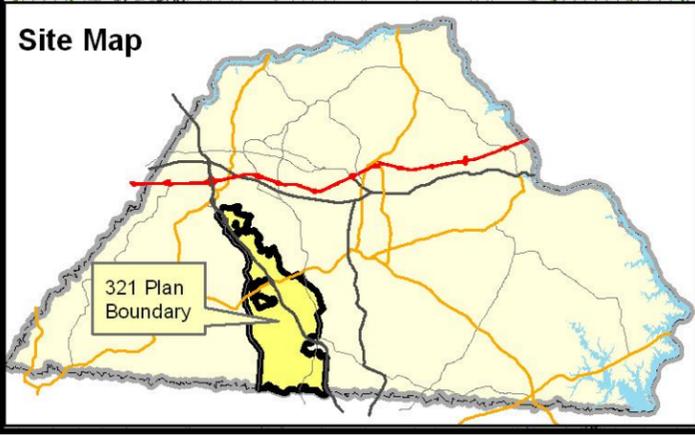
**Map 11:  
321 Eco-Tech Development Plan  
Natural Resources**

- Plan Boundary
- County Boundary
- City Limit
- ETJ
- Parcels
- Proposed Blueway Access Sites
- Jacob Fork Park - Existing Blueway Access Site
- Proposed Blueways
- Present Use Tax Value (Farmland, Forestland & Horticultural Land)
- Conservation Land - (Owned by Catawba Lands Conservancy)
- VAD - Enhanced
- VAD - General
- WS-III Critical Area
- WS-III Protected Area
- WS-IV Protected Area
- Floodplain
- Water Bodies



0 0.25 0.5 1 Miles

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**Plan Action Strategies (PASs)  
Natural Resources**

PASs #	CATEGORY	GOAL	LEAD AGENCY	ACTION STEPS	CHAPTER #	PRINCIPAL #	GOAL #	TIMEFRAME	PRIORITY
26	Natural Resources	Contact farmers in the study area who qualify for the Voluntary Agricultural District program to educate and encourage them to participate	Planning and Cooperative Extension	Work through the Agricultural Advisory Board to identify farmers located in the study area and contact them personally to educate and encourage them to participate in the Voluntary Agricultural District program.	6	NP-1 NP-3	NG-1	Ongoing	M
27	Natural Resources	Evaluate new opportunities for farmers to participate in the EcoComplex facility	Planning, Cooperative Extension and Utilities & Engineering	Identify symbiotic opportunities for farmers to participate in the EcoComplex during the development of the County's Farmland Protection Plan process.	6	NP-3	NG-2	Ongoing	H
28	Natural Resources	Collaborate with the Catawba Lands Conservancy on additional land preservation opportunities along the South Fork Catawba River	Planning	Identify key conservation properties along the South Fork River and meet with Catawba Lands Conservancy staff to provide outreach and education to the property owners.	6	NP-1 NP-2	NG-3	18 Months - 3 Yrs.	M
29	Natural Resources	Pursue grants to develop the blueway access points listed in the County's Comprehensive Parks Master Plan.	Planning	Identify grant and matching funds sources for the construction of parking lots and access points along the Jacob Fork, Henry Fork and Catawba River. Apply for grants as funding becomes available.	6	NP-2	NG-4	18 months - 3 Yrs.	M
30	Natural Resources	Conduct outreach to downstream jurisdictions that link to the U.S. National Whitewater Center to discuss establishing a connected blueway system	Planning	Meet with Whitewater Center staff to discuss their goals and how the local governments upstream can support and tie into their facility. Meet with downstream jurisdictions to discuss ways to connect the blueway network to the Whitewater Center.	6	NP-2	NG-5	18 Months - 3 Yrs.	L

# Cultural Resources

## *HISTORICAL CONTEXT*

The Jacob Fork community, located north of the confluence of the Jacob Fork and Henry Fork, was one of the earliest identifiable communities in what would become Catawba County.

Evidence indicates that Henry Weidner trapped in Catawba County as early as 1739. However, it wasn't until after 1748 that Weidner extended the Catawba Path west from Sherrills Ford, the earliest established community in present day Catawba County, along the ridge to Newton then south to Jacob Fork. In 1750 Weidner obtained his first land grant in the Jacob Fork

area. The early inhabitants of Jacob Fork were descendents of Weidner or young men he gathered. In the late 1760s, Weidner erected a school one mile south of the location that would become Zion Church in



*1924 Catawba County Courthouse*

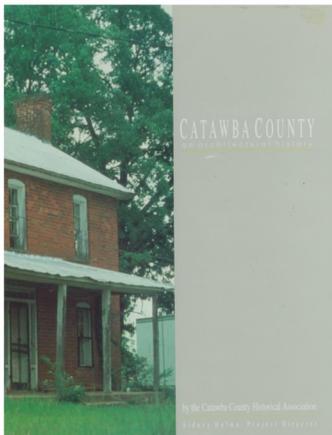
1790. Churches played a valuable role in the early communities as they provided the means for residents to pass their values on to following generations. By 1820 John Wilfong was merchandising and operating a post office in the Jacob Fork community. The Jacob Fork community also served as a melting pot for German and English and by 1850 people of all types and backgrounds resided in Jacob Fork.

Bakers Mountain is another important historical landmark located within proximity of the Plan area. Peter Baker settled in the area in the 1700s and his son David resided there during the 1800s. The Mountain was named after the David Baker family. Original settlers used the south slope of the mountain for grazing cattle each summer, Tories used the mountain as a hideout during the Revolutionary War and local Germans pilgrimaged to the mountain slopes every Easter Monday.

Bakers Mountain remains a landmark that residents want

### Cultural Resources

Historical Context	1
Present Day Historical Sites	2
Guiding Principles	5
Plan Goals	6



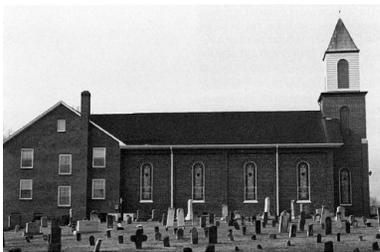
*Catawba County:  
An Architectural History  
By Sidney Halma*

to protect and preserve. Today, the County owns and operates Bakers Mountain Park, located on a portion of the mountain, to preserve Catawba County's natural heritage. The Park is located on the highest point of elevation in Catawba County (1780 feet), features 189 acres of mature Chestnut Oak forest, and offers nearly six miles of trail to explore. Visitors will experience a variety of wildlife and plants that are native to the North Carolina Mountains.

The rural nature of the Plan area reflects the largely agricultural heritage of the community which still remains. Residents continue to identify churches as significant contributors to the community, and Startown Elementary School occupies a site in continuous operation as a school for over 100 years.

## **PRESENT DAY HISTORICAL SITES**

The Plan area is fortunate to have several sites listed on the National Register of Historic Places which have been recognized by state and federal historians as worthy of preservation for their significance in American history, architecture and culture. Several other properties of local historic significance also exist within proximity to the Plan area. The property locations are shown on Map 11 and briefly described below. *See Map 12: Cultural Resources.*



*Zion Lutheran Church  
and Cemetery*

**Zion Lutheran Church and Cemetery**—Located on the west side of Zion Church Road, the church was organized in 1790 and became the first exclusively Lutheran Church in North Carolina west of the Catawba River. The original church was a two-story log structure finished with hand-planed beams. The second and current brick church was built in 1804 and was subsequently expanded. Yoder's Mill produced handmade brick for the church. The cemetery adjacent to the church contains the graves of many members of the congregation from the 18<sup>th</sup> century to present.

**Yoder's Mill**—The property is preserved as an archeological site. The complex of buildings consists of eight vernacular buildings, showing a use of stone, frame and log construction. Preserved and in use today, they are an important

reminder of how the turn of the century Catawba County farmer chose building materials to suit his purposes. Molasses and lumber were produced at Yoder's Mill, circa 1857.

**Wilfong-Wilson Farm**—This is one of the largest remaining active farms north of NC Highway 10. The antebellum house was built on a central floor plan with end chimneys. George Wilfong died shortly after the house was constructed, leaving the property to his daughter, who married Major Wilson several years later. Major Wilson was a veteran of the Civil War, making the property significant from both an historical and architectural perspective.



*Wilfong-Wilson Farm*

**Weidner Rock House**—This house is a two-story stone structure constructed in 1789 by the son of the first settler in the area. Although the house was originally constructed in the floodplain overlooking the confluence of the Henry and Jacob Fork Rivers, it was moved uphill to its current location in the 1840s with teams of mule-drawn wagons.



*Oakwood Farm*

**Oakwood Farm**—Owners of the farm property donated 66 acres of the tract to the Catawba Lands Conservancy for open space preservation. Another area of the original Oakwood Farm tract has been put into a conservation easement. The owner is in the process of restoring the historic buildings located on the property, and may eventually, open the farm to the public as an historical/educational resource.

**Shuford Cemetery**—This was the a burial plot for the Shufords which is no longer owned by the family. It is an un-kept plot, surrounded by a stone wall, and contains approximately 33 grave sites.

**Michael Weidner Cemetery**—Owned by Catawba County Historical Association, this 1/10-acre plot has burial sites dating from 1700 to 1923. The site has limited visitation due to privacy concerns of an adjacent neighbor.



*Weidner Rock House*

The following properties which are located at the western boundary of the Plan area, along Hickory-Lincolnton Highway, are listed on the National Register. *See Map 12: Cultural Resources.*



*Grace Union Church  
and Cemetery*



*Abraham-Anthony Farm*



*Rudisill-Wilson House*

**Shuford-Hoover House**—The house is a well preserved cottage originally built in 1790 with later additions around 1840 and 1925 to accommodate the large farm families that lived there during the nineteenth and early twentieth centuries. The original portion of the house was turned into the rear log kitchen.

**Grace Union Church and Cemetery**—Located south of the Rocky Ford Road intersection, Grace Union Church is the only remaining mid-nineteenth century church building in Catawba County. Although the church was constructed in 1857, the cemetery has grave markers dating from the 1820s.

**Abraham-Anthony Farm**—Located south on Hickory-Lincolnton Highway, the farm contains a two-story brick house built in 1877. The Anthony House is one of the oldest remaining late 19<sup>th</sup> century brick residences and features a hipped roof and entrance porch with lattice work, which is unique to this period house in Catawba County.

Four additional farmhouses located east of Startown Road, but within proximity of the Plan area, are listed on the National Register

**Rudisill-Wilson House**—Located along Startown Road, this house was constructed between 1818 and 1821. The house was built following the traditional center hall floor plan, one room deep, and contains most of its interior fabric, including the substantial Federal mantels. After being sold to Mr. Ezekial Wilson in 1855, the property remained in the Wilson family until 1949.

**Franklin D. Reinhardt House and William Pinckney Reinhardt House**—Located along Sigmon Dairy Road, these houses are nearly identical, having been constructed by two brothers in the mid-1840s. Mr. Franklin Reinhardt served four terms in the North Carolina General Assembly before returning to the area to serve as one of Catawba County's first magistrates.

**Harren-Hood House**—Located further north on Sigmon Dairy Road, this house is a two-story, late-Victorian frame structure built around 1908.

The three-bay-wide house features weather board siding, a brick pier foundation now infilled with bricks, and a gable roof with overhanging eaves. Mr. Alonzo Harren sold the house and land to Mrs. Ella Hood in 1925 and it has remained in the Hood family since.

Persons interested in a more comprehensive inventory are encouraged to consult the Catawba County Historical Association or Sidney Halma's *Catawba County: An Architectural History*.

### **HMONG CULTURAL FACILITY**

The Hmong Community owns approximately 34 acres within the Plan area along Rocky Ford Road. Currently, the parcel is the site of quarterly festivals and scheduled soccer games. The Community's goal is to further educate all members, from children to senior citizens, on Hmong customs, family values, good citizenship by becoming more involved in social, economic and political processes, and computer skills. Members would like to construct a building to enhance their festivals and provide space for year-around educational programs, after school activities, weddings, funerals, graduations, and meeting space for other organizations and businesses. See *Map 12: Cultural Resources*.

In addition to activities on the Hmong property site, the Community is using a portion of the Eco-Complex site for crop growing. The Community has been working with the County Cooperative Extension to learn agricultural techniques suitable to this climate.



*Hmong Association Property*

### **GUIDING PRINCIPLES**

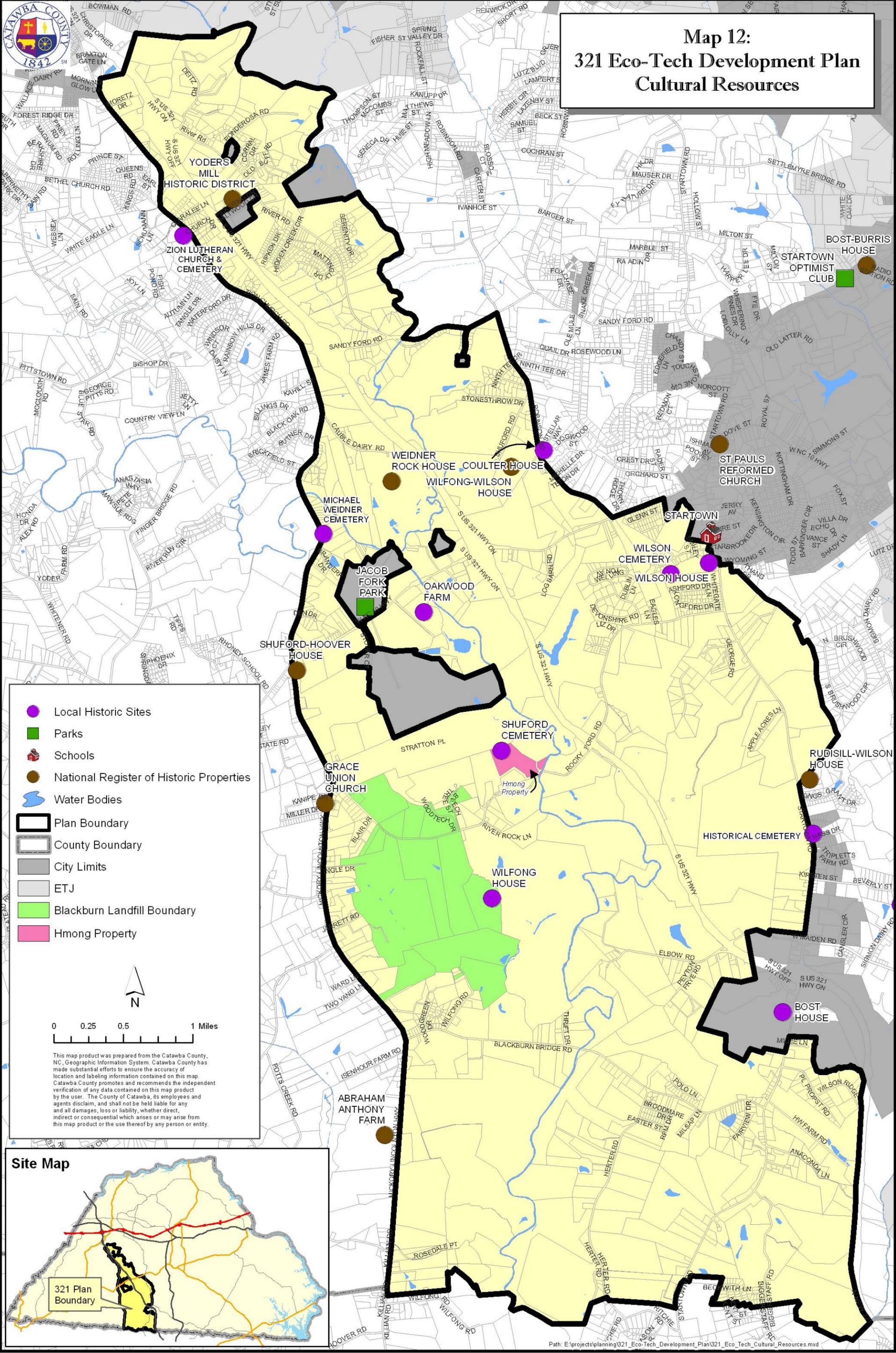
- CP-1 Recognize and protect cultural resources.
- CP-2 Preserve properties of local and national historic significance.
- CP-3 Encourage the application of adaptive reuse techniques for historic properties.

## ***PLAN GOALS***

- CG-1 Encourage and support the Catawba County Historical Association in its endeavor to identify historic properties.
- CG-2 Incorporate a database of historical sites on the County GIS system, so that proposed developments on or near significant historical areas can be flagged. This could help preserve the character of the area.
- CG-3 Create an interactive map, identifying historic properties with links to associated State Historic documents.
- CG-4 Explore creating a County Historic Preservation Ordinance.
- CG-5 Work with the Hmong Community as they develop a community center.



# Map 12: 321 Eco-Tech Development Plan Cultural Resources



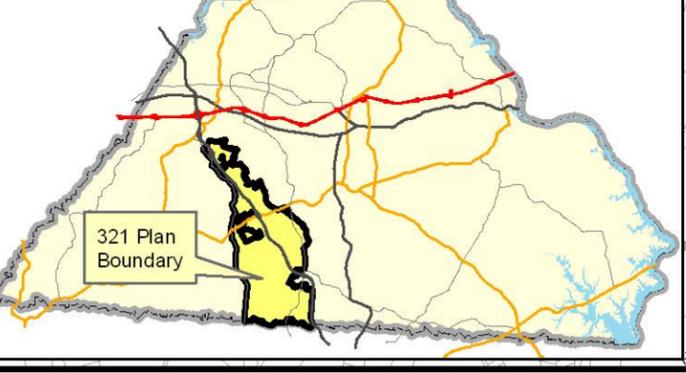
- Local Historic Sites
- Parks
- Schools
- National Register of Historic Properties
- Water Bodies
- Plan Boundary
- County Boundary
- City Limits
- ETJ
- Blackburn Landfill Boundary
- Hmong Property



0 0.25 0.5 1 Miles

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### Site Map



**Plan Action Strategies (PASs)  
Cultural Resources**

PASs #	CATEGORY	GOAL	LEAD AGENCY	ACTION STEPS	CHAPTER #	PRINCIPAL #	GOAL #	TIMEFRAME	PRIORITY
31	Cultural Resources	Work with Catawba County Historical Association to identify historic properties.	Planning & Historical Association	Identify historic properties in the County. Research documentation at the County Historical Association and State Historic Association to verify all known properties are included on the listing. Meet with knowledgeable historical representatives from the Association to ensure additional potentially worthy properties are included in the database, and create a photo inventory of sites.	7	CP-1	CG-1	18 Months - 3 Yrs.	H
32	Cultural Resources	Incorporate database of historical sites on the County GIS system so proposed developments on or near significant historical areas can be flagged.	Planning & GIS	Work with County GIS department to create a publically accessible layer for historic properties.	7	CP-1 CP-2 CP-3	CG-2	18 Months - 3 Yrs.	M
33	Cultural Resources	Create an interactive map, identifying historic properties with links to associated State Historic documents.	Planning, Historical Association & GIS	Work with County GIS department and Historical Association to verify locations of significant properties, obtain copies of material sent to the State for historical designations, and create an interactive map linking to this information.	7	CP-1 CP-2 CP-3	CG-3	18 Months - 3 Yrs.	M
34	Cultural Resources	Explore creating a County Historic Preservation Ordinance.	Planning & Historical Association	Research tools for historic preservation and historic landmark designation for worthy properties. Present findings to management to determine whether to pursue an ordinance.	7	CP-2 CP-3	CG-4	18 Months - 3 Yrs.	M
35	Cultural Resources	Work with the Hmong Community as they develop a community center.	Planning	Assist Hmong Association representatives with the development process to include conceptual design, rezoning, and permitting process.	7	CP-1	CG-5	6-18 Months	H