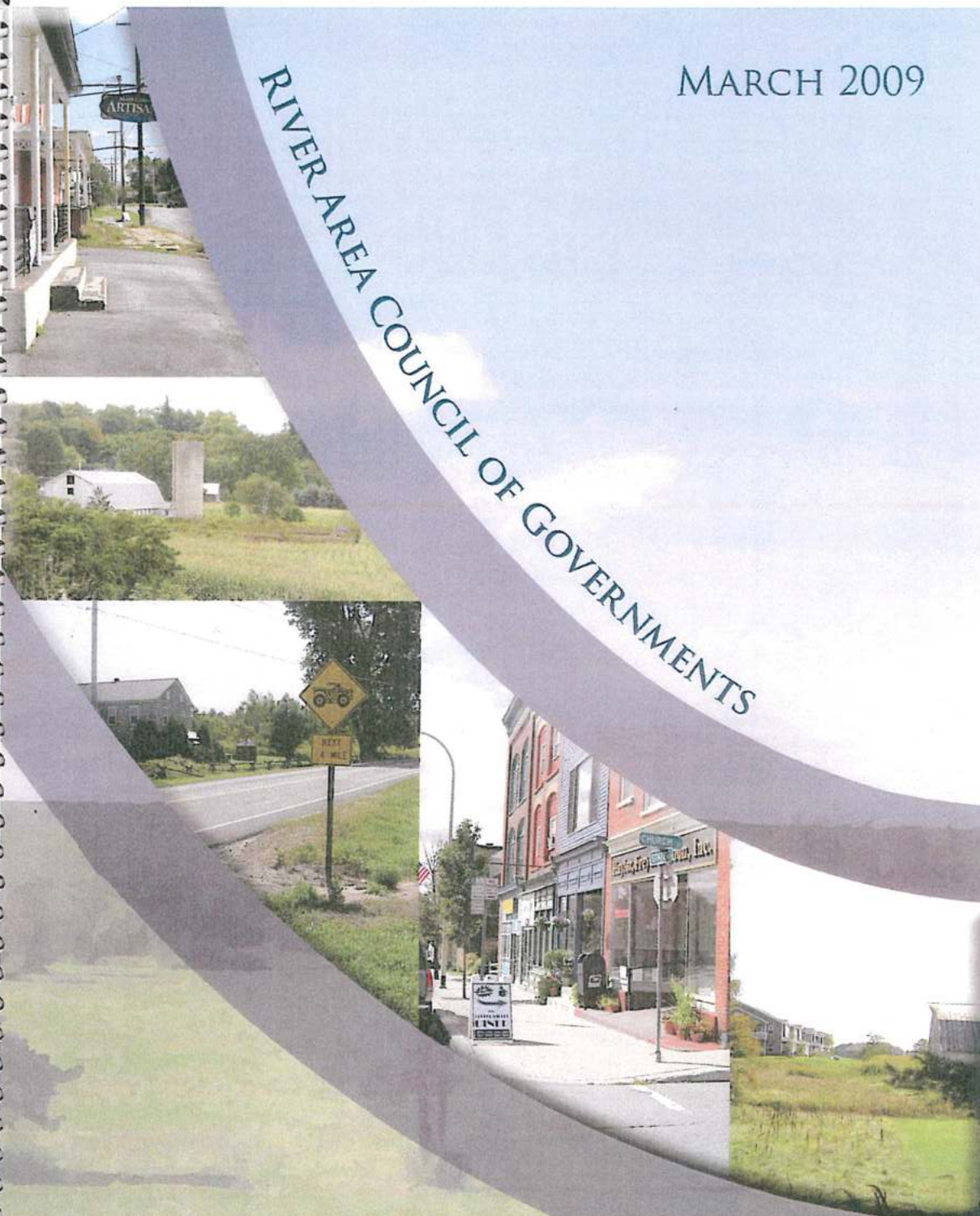


MARCH 2009

RIVER AREA COUNCIL OF GOVERNMENTS



COMPREHENSIVE PLAN
BACKGROUND REPORT

DESIGN based
PLANNING
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ACKNOWLEDGEMENTS

peter j. smith & company, inc., would like to thank the following participants for the input and assistance in preparing the Comprehensive Plan Background Report for the River Area Council of Governments (RACOG) communities. Recognizing the need for cooperative planning, the participants helped prepare a background report to inform the preparation of Comprehensive Plans for each of the participating RACOG communities.

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March 2009

The Background Report for the Comprehensive Plan is a “snapshot in time” that will help the four communities plan for their future.

As a community profile for the RACOG the background report identifies the backdrop for comprehensive planning goals, objectives and policies as well as helps develop a future land use plan that is appropriate for the communities.

Having completed a variety of planning effort prior to the start of the comprehensive planning process, this background report utilizes a literary review of relevant planning initiatives as well as supplements existing plan information with other available data. Documents that were reviewed as part of this plan include:

- *Town of Champion Comprehensive Plan - Adopted 1996*
- *Carthage/West Carthage Management Study - Completed July 1999*
- *RACOG Planning Committee Work Plan - Adopted June 2000*
- *Carthage/West Carthage Downtown Revitalization Plan - Completed Spring/Summer 2001*
- *Route 3 - Black River Corridor Design Study - Completed 2002*
- *Olympic Scenic Byway - Adopted August 2003*
- *West Carthage/Carthage Transportation Element of Comprehensive Plan - Completed February 2005*
- *Town of Champion Route 3 Corridor Plan Element - Completed 2005*
- *Blueway Trail Development Plan - Completed September 2007*
- *Black River Watershed Plan - Consultant Contract 2007*
- *Carthage/West Carthage Waterfront Development Plan - Completed December 2008*
- *Fort Drum Management Study - Completed January 2009*

Together with these reports, recent community data and an assessment of existing conditions, the RACOG communities have a strong basis for planning for future development and

RIVER AREA COUNCIL OF GOVERNMENTS

Comprehensive Plan Background Report

March 2009

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DEMOGRAPHIC & HOUSING ANALYSIS

The objective of this section is to identify the demographics and housing trends so as to help the community plan for future development.

Population Change

Residents of the RACOG areas are concerned with the potential impacts on housing and land use from recent population fluctuations. Jefferson County has been the focus of an intense amount of growth related to the expansion of the Fort Drum army installation and the increase in personnel of the 10th Mountain Division. Through 2008, much of this growth was focused west of the RACOG, particularly in LeRay where housing and commercial growth has been focused and the Town and City of Watertown where commercial growth has been notable.

This report is being delivered to the RACOG communities between the decennial 2000 and 2010 Census of the population. Several different methods of estimating population change for the RACOG were employed for this study. One method use of tax return data to estimate net migration; another method is to determine the natural increase in population with data from the Bureau of Biometrics and Health Statistics of the New York State Department of Health, known as natural increase. Natural increase does not account for people who may have moved into the area. However, a large jump in natural increase could indicate a jump in population. A third method is to look at elementary school enrollments. It is the policy of the Carthage Central Schools that children in the primary grades attend the school that is closest to their homes, so growth in population of school children associated with an increase of army personnel becomes apparent. Building permit data was also reviewed to gauge the potential for increase in housing units.

All three methods indicate the population of the RACOG is probably stable or contracting somewhat; however, the data also shows that enrollment at Black River School, the Carthage Central elementary school closest to Fort Drum, is growing after lagging early in the decade. In the 2009-2010 school year, district

officials anticipate sending children who would normally attend Black River to other district elementary schools to alleviate anticipated crowding. Unfortunately, no method is able to overcome the influence of the military on the local population base. The impact of the constant deployments of Fort Drum soldiers and long-term deployments on the local population base is difficult to estimate. According to the Jefferson County Planning Department, "near term population totals are heavily influenced on brigade assignments, deployment cycles, and swings in spouse/children accompaniment rates. This tends to undermine any normal projection methodology."¹

¹ Planning Director Donald Canfield in a 9/22/2008 email message.

2004-2007 Births and Deaths

	Champion	West Carthage	Wilna	Carthage
Births				
2004	37	36	16	79
2005	29	38	28	65
2006	33	31	20	54
2007	42	24	26	61
Total	141	129	90	259
Average	35	32	23	65
Deaths				
2004	15	14	17	55
2005	19	14	17	59
2006	18	10	25	53
2007	17	12	18	52
Total	69	50	77	219
Average	17	13	19	55
Bureau of Biometrics and Health Statistics of the New York State Department of Health				

US Census Population Data

According to the 2000 US Census, the Town of Champion, excluding the Village of West Carthage, had a population of 2,288. This represented a change of -6% or 149 from the total population in 1990. The natural increase in population from 2004 to 2007 was 72. This suggests that the population in the Town of Champion has remained stable.

The population of the Village of West Carthage in 2000 was 2,112, 54 or 2% less than the 1990 population of 2,166. Natural increase for the Village of Carthage from 2004 to 2007 was 79. This suggests that the population of the Village of West Carthage may be expected to reflect growth in the 2010 Census results.

The population of the Town of Wilna decreased 2% from 2,584 in 1990 to 2,568 in 2000. This is a decrease of 16 persons. Natural increase for 2004 to 2007 was 13. This suggests that the Town of Wilna population is stable and can be expected to remain very close to its 2000 level in the 2010 census.

The population of the Village of Carthage decreased 14% between 1990 and 2000, from 4,344 to 3,667. This is a decrease of 677 persons. Natural increase from 2004 to 2007 is 50. This suggests that unless there is an influx of new residents, the population of the Village of Carthage will show a decrease in population in the 2010 Census.

2000 Census School Enrollments

Most of the children who attend public schools in the Carthage area attend Carthage Central District. The district extends east into Lewis County and west into the Town of Rutland. The Carthage Central School District has five school buildings: Senior High School, Middle School and three elementary schools. The elementary schools are located in Black River, West Carthage and Carthage. Enrollment levels at schools can be indicators of population change – spikes in enrollments can be the result of families moving into districts.

2001-2007 Carthage Central School District Enrollments

	Carthage Senior High	Carthage Middle School	West Carthage Elementary	Carthage Elementary	Black River School
2001-02	937	689	465	433	461
2002-03	913	684	496	414	452
2003-04	927	688	466	429	427
2004-05	913	697	498	402	437
2005-06	946	720	462	439	432
2006-07	962	698	490	432	440

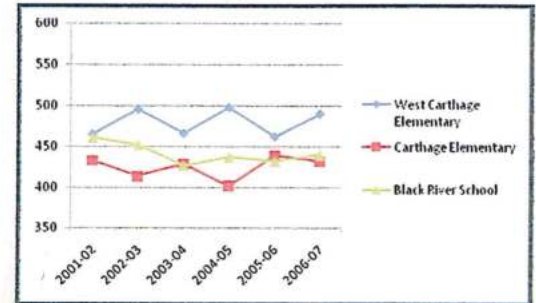
NYS Education Department Information and Reporting Services

1990-2000 Population Change

	Champion	West Carthage	Wilna	Carthage
2000	2288	2112	2568	3667
1990	2437	2166	2584	4344
1990-2000 change	-6%	-2%	-1%	-16%

Source: US Bureau of the Census

2001-2007 Elementary School Enrollments



Source: NYS Education Department Information and Reporting Services

All of the district schools showed fluctuations in enrollments over the period 2001-2007. Enrollment in Carthage Senior High School grew 3% between 2001-02 and 2006-07 and 5% at West Carthage Elementary during same period. Carthage Elementary School enrollment was unchanged and rose 1% at Carthage Middle School. At Black River School, enrollment was down 5% over the period.

Tax Returns

According to information obtained from the Internal Revenue Service for the tax years 2001, 2002, 2004 and 2006, the most recent year available, the population of the RACOG is stable. The data for the local ZIP Code indicates that the number of tax returns filed from 13619 increased by 3% over the 2001-2006 period. The total number of total exemptions claimed, which is representative of the total population, fell by 5% over the period. As summarized in the table at right, total exemptions in 2001 were 441 higher in 2001 than they were in 2006; there were 119 more tax returns filed in 2006 than in 2001. This indicates that while the number of households grew, the population did not.

Housing

Between the 1990 and 2000 census, the supply of housing units in the RACOG increased 1% from 4505 to 4564. The housing supply shifted through the area however. Below the 1990-2000 supply of housing units is briefly described.

- The supply of housing in the Town of Champion increased 1% or five units between 1990 and 2000, from 986 to 991.
- The housing supply in the Village of West Carthage increased 8% between the 1990 and 2000 census, from 851 to 915 units, an increase of 64 units.
- In the Town of Champion including the Village of West Carthage, the net housing change between the two census periods was an increase of 59 units.
- In the Town of Wilna, the housing supply increased 13% between 1990 and 2000, from 917 to 1,032, an increase of 115.
- In the Village of Carthage the supply of housing decreased 7% from 1,751 to 1,626, a drop of 125 units.
- In the Town of Wilna including the Village of Carthage, the net housing change was a loss of 10 units between the two census periods.
- During the period from 1990 to 2000 in the four RACOG communities, there was a very slight change in the supply of housing. There were a net 59 new units or an increase of 1%.

Housing Authority

In 1979 and 1960, respectively, the Village of West Carthage Housing Authority and the Town of Wilna Housing Authority were created. As part of the Municipal Service Alternatives study for the Villages of Carthage and West Carthage the Housing Authorities prepared an inventory assessment of the Villages. Facilities identified in the inventory include West Side Terrace, William Dalton Estates and Grandview Courts in West Carthage and Brady Acres and Long Galls in Carthage. The study of the housing authorities concluded that the provision of public housing and housing services are not direct functions of either Village and have no direct effect on the operating costs of the two Villages. As detailed in the Municipal Service Alternative study's summary matrix the housing study group recommended to continue with the status quo.

Building Permits

According to data obtained from the Jefferson County Department of Planning, between 2005 and Oct. 31, 2008, there were 82 permits issued for new home construction in Champion and West Carthage. These included the installation of modular and mobile homes. The total value of these permits was \$8.8 million with an average value of just under \$109,000. The median value was \$98,460.

2001-2006 Tax Returns for ZIP Code 13619

	Number of Returns	Total Exemptions	Estimated HH Size	Change in Returns	Change in Exemptions	Change in HH size
2001	4,014	9,197	2			
2002	4,003	8,590	2	-0%	-7%	-6%
2004	4,162	9,226	2	4%	7%	3%
2006	4,133	8,756	2	-1%	-5%	-4%
				3%	-5%	-8%

Source: US Department of the Treasury Internal Revenue Service

1990-2000 Housing Supply

	Champion	West Carthage	Wilna	Carthage	Total
1990	986	851	917	1751	4505
2000	991	915	1032	1626	4564
Percent Change	1%	8%	13%	-7%	1%

Source: US Bureau of the Census

RACOG Demographics

Racial composition in the four RACOG communities is predominantly white, indicating that the area is relatively racially homogenous. The demographic demonstrate a slightly more diverse population in the Villages than the Towns.

The composition of all communities by gender is generally evenly distributed between males and females. Nonetheless, the Villages tend to have a slightly higher female population than the Towns.

The population in the RACOG is generally young with around half the population under 34 years old. However, utilizing data from the Champion Comprehensive plan, the median age of Town residents has been rising. In 1980, the median age for Champion was 29.1; in 1990, it was 31.6 years; and in 2000, it was 35 years.

Most town residents have at least a high school education. The Villages of West Carthage and Carthage have a higher percentage of persons with a bachelor's degree, masters', professional or doctorate, 19% and 14% respectively, than the Towns of Champion (11%) and Wilna (6%).

Findings

The following are some key point identified in the demographic and housing analysis:

- The population for the RACOG area, while difficult to estimate due to fluctuations in population related to Fort Drum, appears to be stable or contracting somewhat.
- The Carthage elementary school closest to Fort Drum has shown recent growth, which may indicate influx in population due to Fort Drum.
- The number of housing units in the RACOG area has generally remained consistent with a 1% increase between 1990 and 2000.
- While the RACOG area generally consists of a young population, median age data for Champion shows a trend toward an aging population.

Selected Demographics for the RACOG

	Champion	West Carthage	Wilna	Carthage
Race				
White*	98%	86%	95%	88%
Black or African American*	0%	5%	1%	3%
American Indian and Alaska Native*	1%	0%	1%	0%
Asian*	0%	4%	0%	2%
Two or more races*	1%	1%	2%	4%
Hispanic or Latino	0%	4%	1%	3%
* Not Hispanic or Latino				
Sex				
Male	50%	45%	51%	48%
Female	50%	55%	49%	52%
Age Distribution				
Under 18	25%	32%	28%	29%
18-34	21%	24%	21%	23%
35-44	19%	14%	18%	13%
45-54	14%	9%	14%	13%
55-64	12%	5%	8%	8%
65+	10%	15%	12%	14%
Educational Attainment*				
No schooling completed	0%	0%	0%	1%
Less than High School	15%	16%	21%	18%
High School Diploma	51%	38%	53%	41%
Some College	15%	18%	12%	18%
Associate's Degree	8%	9%	8%	8%
Bachelor's Degree	6%	14%	2%	9%
Master's, Professional, Doctorate	5%	5%	4%	5%
*Universe: Persons 25 years and older				
Source: US Bureau of the Census				

TRANSPORTATION & CIRCULATION

The Carthage Area is served by 155.7 miles of state, county and local roads. Because of its rural nature, there is no public bus and rail transportation in the Carthage Area. Transportation for the elderly and disabled is provided by a private company.

Buses

There is no public bus service available to the four RACOG communities. A private company, the Wilna Champion Transportation Association, provides transportation to residents aged 60 and over as well as the physically disabled with its handicapped accessible bus. The service is provided without charge, but a contribution of \$1 is encouraged. It is one of three such organizations funded through the Jefferson County Office for the Aging in the County and the only one in the Carthage area. The service also receives funding from United Way of Jefferson County.¹

Rail

There is no passenger rail service in the RACOG. The Genesee Valley Transportation Company, parent company of the Mohawk, Adirondack and Northern Railroad Corp. owns 117 miles of rail and facilities in Jefferson, Lewis, Oneida and St. Lawrence counties including the rail depots at Mechanic Street and at Alexandria and Forge streets in Carthage. It transports freight including fertilizer, pesticides, vegetables and linerboard.² The Mohawk, Adirondack and Northern connect with CSX rail in Carthage.³

Air

The Town of Champion is served by the Watertown International Airport. A private airstrip on Alexandria Road in Wilna one mile north of the Village of Carthage is owned by Edgar Countryman and features a turf landing strip.⁴

Roads

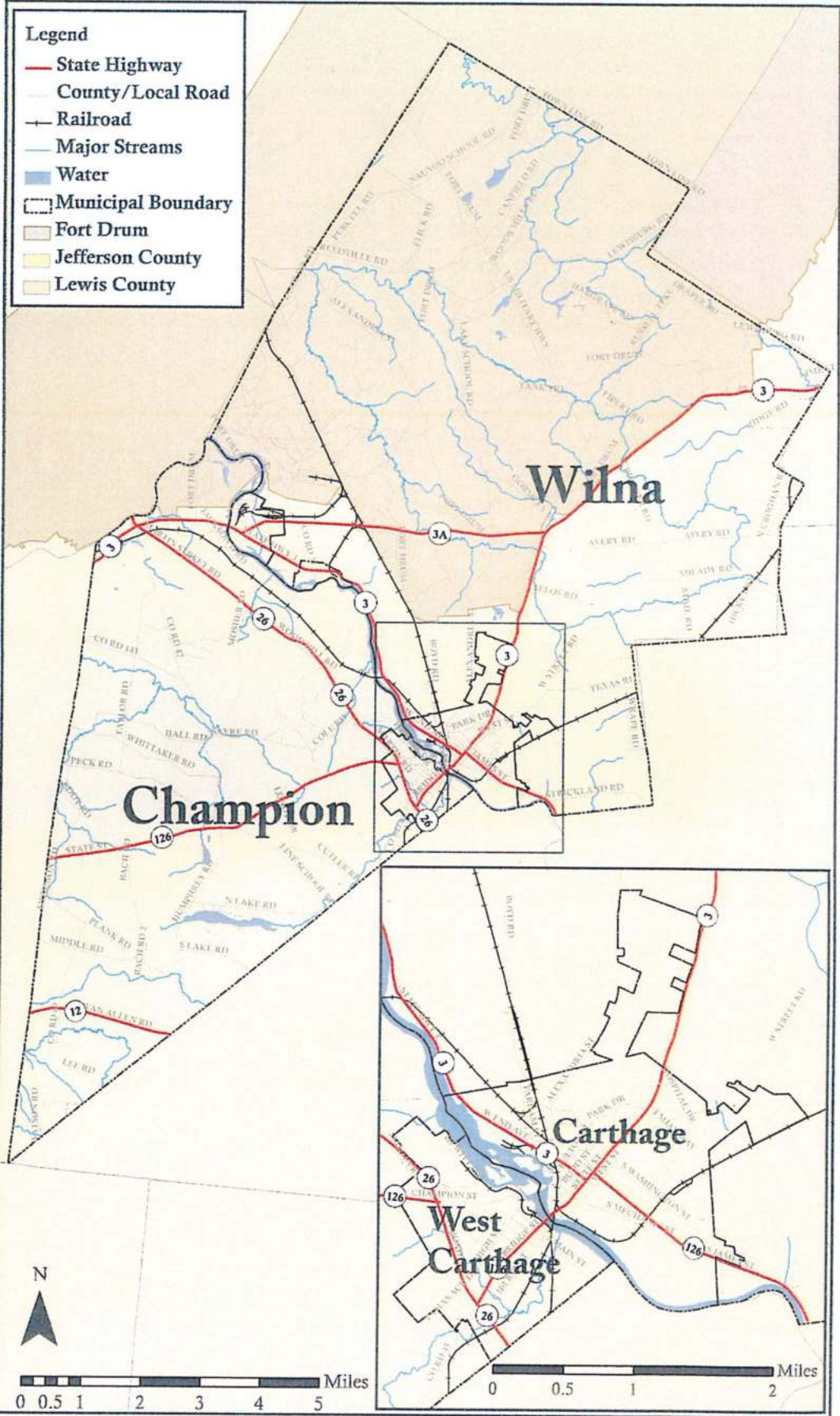
There are 155.7 miles of highways, streets and roads in the four RACOG communities. Champion, with the larger non-military area of the two RACOG towns has the greatest mileage, 77.9 miles, including almost 19 miles of state highways and 16 miles of county highways. Wilna has 53.9 miles of roadways, including just over 12 miles of state highways and 15.5 miles of county highways. The villages have no county highways.

Roads in Miles

Roads, in miles	West			
	Champion	Carthage	Wilna	Carthage
Town/Village Owned Total	43	7	26	11
Jefferson County	16	0	16	0
Total Local	59	7	42	11
NYS DOT	19	3	12	4
Other	0	0	0	0
Total Mileage	78	9	54	15

Source: NYS DOT Traffic Engineering Division, Office of Technical Services, Highway Data Services Bureau

¹ Carthage Chamber of Commerce, Jefferson County Office for the Aging, United Way of Jefferson County and <https://www.peerplace.com/nysportal/>
² <http://www.railroadsofny.com/mohawk.htm>
³ <http://www.gntrail.com/>
⁴ <http://www.airport-data.com/>



Traffic Counts

According to local highway traffic data distributed by the New York State Department of Transportation, the highest traffic counts among roads on which counts were conducted, are in the Village of Carthage. South Mechanic Street from James Street to the railroad track has a current average annual daily traffic (AADT) count of 2,600. Spring Street between Riverside Drive and North Mechanic Street has a current AADT of 2,200. Fargo Road from Route 3 in Deferiet to County Route 37 has 2,200 AADT. The data suggest that 300 daily cars leave the Fargo Road at this point as the remainder of the road has AADT of 1,900. Canal Street from West Street to State Street has 1,400 AADT.

State Highways

There are five New York State highways passing through the RACOG communities: routes 3, 3A, 12, 26 and 126. Predictably, traffic on the state highways in the region is much higher than that on the local road and streets. The most heavily traveled segment of state highway in the communities is Bridge/State streets between Champion Street and School Street. AADT for this segment is almost 11,000 daily cars. The next segment, from School Street to James Street has AADT of almost 10,000 cars. The second-most heavily traveled highway segment is North Broad Street in West Carthage from Champion Street to Bridge Street with an AADT of 7,150. Traffic counts in the vicinity of Fort Drum include the segment of NYS Route 3 from Felts Mills in Rutland to Route 26 in Great Bend: 6,000 AADT; from Great Bend to Deferiet: 5,130 AADT; the highest Fort Drum area highway traffic, is Route 26 between Great Bend and County Route 37 in LeRay: 8,010 AADT. The Fort Drum area highway counts can be expected to increase as the army continues its expansion at Fort Drum.

State Highways

State Highway	Section	AADT
NYS Route 3	Route 26 Great Bend (from Felts Mills)	6000
	Route 3A Deferiet	5130
	Plaza Drive	2940
	North Mechanic Street	3670
	Route 126 Overlap	2380
	End Route 126 Overlap	9260
	South Washington Street	6290
	Carthage Village Line	5850
	Route 3A Fargo	2620
NYS Route 3A	Lewis County Line	3090
	County Route 37 (from Deferiet)	2280
NYS Route 12	Fargo	1840
	Jefferson County Line (from Lewis Route 194)	3590
NYS Route 26	Jefferson County Line (from Lewis County Route 19)	2870
	Start Route 126 Overlap	4950
	End Route 126 Overlap	7150
	Village of West Carthage Line	5920
	NYS Route 3 Great Bend	5200
NYS Route 126	County Route 37	8010
	County Route 47 (from County Route 163 in Rutland)	3600
	Start Route 26 Overlap	4820
	End Route 26 Overlap	7150
	Champion Street	6880
	Start Route 3 Overlap	10940
	End Route 3 Overlap	9260
Carthage Village Line	1640	
Lewis County Line	3070	

Source: NYS DOT Traffic Engineering Division, Office of Technical Services, Highway Data Services Bureau

Annual Average Daily Traffic

Municipality	Road	From	To	AADT	Year
Wilna	Boyd Road	Carthage Village line	Rail Crossing	600	2007
	Depot Street	Lewis County line	State Route 3	200	2000
	Fargo Road	State Route 3	County Route 37	2200	2004
	Fargo Road	County Route 37	State Route 3	1900	2005
	Hickey Road	Milady Road	Avery Road	200	2000
	Milady Road	Persha Road	Hickey Road	50	2004
	Selos Road	State Route 3	County Route 42	90	2001
	West Street Road	Rogers Crossing Road North	Selois Road	500	2004
Carthage	Adelaide Street	West End Avenue	Alexandria Street	600	2004
	Boyd Street	Alexandria Street	Village limit	500	2005
	Brown Street	County Bridge	North Mechanic Street	80	2003
	Canal Street	West Street	State Street	1400	2004
	South Clinton Street	State Street	Cemetery Street	400	2004
	South Mechanic Street	South James Street	Railroad Track	2600	2004
	South Washington	Pavement widening	State Street	400	2004
	Spring Street	Riverside Drive	North Mechanic Street	2200	2004
Champion	Applegate Road	CR-144	Taylor Road	800	2006
	Lowville Creek	Churchill Road	Watson Road	70	2003
	Taylor Road	Austin Road	County Route 143	100	2000
West Carthage	South Main Street	Liberty Street	Hubbard Street	400	1999

Source: NYS DOT Traffic Engineering Division, Office of Technical Services, Highway Data Services Bureau

Roadway Maintenance

All four RACOG municipalities maintain their own streets and roads; in addition, they also provide plowing on state and county roads. In addition to the 30 miles of Town roads it plows, the Town of Champion plows 15.8 miles of county roads and 13.6 miles of state roads. The Town of Wilna plows its own 26.2 miles of roads, plus 10 miles each of state and county roads. The Village of Carthage plows 10.6 miles of its own roads and provides plowing services for 3.7 miles of state roads; the Village of West Carthage plows 7 miles of its own roads and 1 mile of state roads.

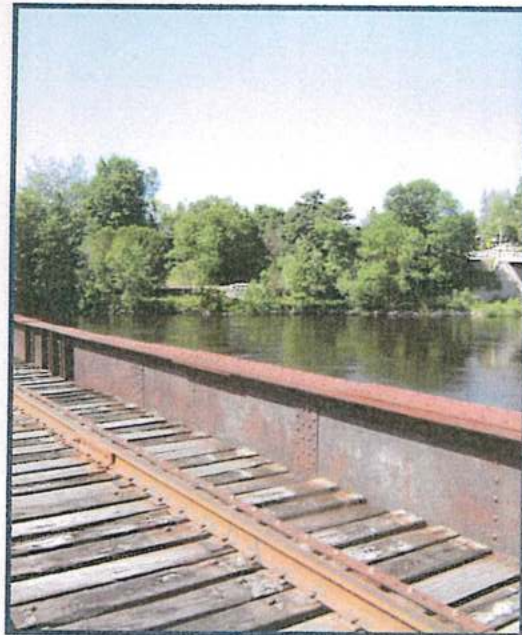
The two towns provide summer mowing for their own roads as well as county roads. The Town of Champion mows 42.3 miles of town road and 15.8 miles of county road; the Town of Wilna mows all 26.2 miles of its roads as well as 17.7 miles of county roads.

Highway Facilities

Each of the RACOG communities operates its own municipal garage with on-site fuel facilities. The Town of Wilna and Village of Carthage each operate a salt and sand storage facility. The Town of Champion and Village of West Carthage, in cooperation with the Village of Carthage, applied for Shared Municipal Services Initiative funding in the 2007-2008 funding round to build a new shared facility. The application was not approved, however.

As a result of the Municipal Service Alternatives study for the Villages of Carthage and West Carthage several recommendations for the highways and streets service area included: exploring options for improving service, exploring tax equity for snow removal outside the village, clarifying the role of Jefferson County, exploring some joint service delivery and in the long term considering a joint facility. These recommendations are detailed in the Management Report on Highways and Streets.

Rail Corridor Over the Black River



Pedestrian Circulation

As part of the Waterfront Plan for the Villages of Carthage and West Carthage, a loop trail to connect the waterfront features along the Black River was proposed as part of the waterfront development efforts. The loop trail utilizes the railroad bridge at Turning Point Park as well as proposed island bridges to connect the Twin Villages waterfront recreation features and create pedestrian circulation around the Black River.

Scenic Byways

Several corridor planning efforts have been completed in the RACOG area. Corridor plans for the area focus on maintaining and enhancing the quality of life in the community through the enjoyment of natural, scenic and recreational resources that are abundant in the RACOG. Plans include the Blueway Trail Development Plan for the Black River, the Black River Corridor Design Initiative on the Olympic Trail, the Olympic Scenic Byway Corridor Management Plan and the Route 3 Corridor Plan Element.

The Blueway Trail Development Plan provides a thorough inventory of the existing resources along the Black River, identifies marketing techniques for the Blueway Trail and develops a master plan for the Trail with gateways, trails, river access enhancements, camping, view enhancements, signage and interpretive centers as well as provides a strategy for implementing the plan.

The Olympic Trail documents, similar to the Blueway Trail Development Plan, provides guidance on development for economic development through tourism that balances with the preservation of the natural resources along the corridor. The Route 3 Corridor Plan Element is intended to be a part of the implementation of the Black River Corridor Design Initiative.

Findings

The following are some key point identified in the transportation and circulation analysis:

- The transportation focus in the RACOG area is primarily automotive.
- The most traffic in the RACOG area can be found in the Villages, with the most traveled local roads in the Village of Carthage and the most traveled area along a state route at the bridge connecting the two Villages. These higher traffic counts are appropriate for the downtown areas in the Villages and as a major regional route traveling through the core of the Villages.
- While high traffic counts are currently focused around the Villages, the highway counts around the Fort Drum area can be expected to increase as the army continues to expand.
- Efforts to diversify the use of major corridors are underway with the completion of scenic byway programs and waterfront plans to make the RACOG area a pedestrian friendly, tourism-ready area that appreciates the natural beauty and recreational opportunity that is abundant in the RACOG.

ECONOMIC CONDITIONS

The economic conditions examine present trends for the four RACOG municipalities to focus the needs for future economic strategies.

Labor Force and Income

An analysis of the labor force and incomes for the RACOG municipalities provides an initial gauge of the status of the local economies and allows for comparisons relative to one another. The Village of Carthage experiences the highest degree of economic hardship. It has the highest unemployment rate (7%) and poverty rate (23%). Similarly, Carthage also has the lowest median household income (\$24,583) and per-capita income (\$13,029). Statistics for the Town of Champion indicate that it has the best economic conditions with the lowest unemployment rate (3%), lowest poverty rate (10%), and highest median (\$34,965) and per capita (\$16,907) incomes. In general, the data suggests that the Towns perform better, economically, than their Village counterparts, with the exception of the Village of West Carthage's per capita income (\$14,915) and poverty rate (11%) which each rank second, behind the Town of Champion, among the four municipalities.

Labor Force

Labor Force	Town of Champion	Village of West Carthage	Town of Wilna	Village of Carthage
In labor force:	61%	62%	63%	55%
Unemployed	3%	6%	5%	7%

Source: US Bureau of the Census & peter j. smith & company.

Income

Income	Town of Champion	Village of West Carthage	Town of Wilna	Village of Carthage
Median household income in 1999	34,965	30,156	34,731	24,583
Per capita income in 1999	16,907	14,915	14,308	13,029
Income in 1999 below poverty level:	10%	11%	16%	23%

Source: US Bureau of the Census & peter j. smith & company.

Carthage Area Hospital



Employment

A study of the industries and occupations of employment indicates distinctions between the employed populations in each of the RACOG municipalities. As indicated in the following Industry table, in 2000, education, health and social services were the predominant industries of employment in all four municipalities. In each, at least 23% of the population, 16 years of age and older, were employed in education, health and social services, with the Village of Carthage having the highest concentration at 37%. In each the Town of Champion and the Town of Wilna, the majority of the population employed in manufacturing lives outside of their respective Villages of West Carthage and Carthage. This is indicated by concentrations of a manufacturing population in the Towns of Champion (19%) and Wilna (18%) that are nearly double that of their respective Villages of West Carthage (10%) and Carthage (9%). Retail trade is also significant industry in the RACOG area composing between 13% and 17% of the employed populations for each municipality. West Carthage has the highest percentage of residents employed in public administration at 14%.

Occupations reported in following Occupations table for the populations in the RACOG municipalities are fairly similar to one another. The Village of West Carthage and the Village of Carthage each have a slightly higher proportion of residents in management, professional and related occupations, sales and office occupations as well as service occupations when compared to the larger Town municipalities of Champion and Wilna. The opposite is true for more laborious occupations such as construction, extraction, material moving and farming occupations, where each of the Towns experiences a higher proportion of its population with these jobs than their respective villages. These statistics indicate that the urban centers of each town, the Village of West Carthage and the Village of Carthage have a relatively larger white-collar workforce than the Towns, while more blue-collar residents reside outside of the Villages.

Industry in the RACOG

Industry	Town of Champion	Village of West Carthage	Town of Wilna	Village of Carthage
Agriculture, forestry, fishing and hunting, and mining:	6%	1%	4%	0%
Construction	4%	4%	4%	3%
Manufacturing	19%	10%	18%	9%
Wholesale trade	4%	0%	1%	1%
Retail trade	13%	17%	14%	13%
Transportation and warehousing, and utilities:	5%	4%	3%	2%
Information	1%	4%	4%	2%
Finance, insurance, real estate and rental and leasing:	4%	3%	1%	4%
Professional, scientific, management, administrative, and waste management services:	4%	4%	4%	8%
Educational, health and social services:	23%	25%	23%	37%
Arts, entertainment, recreation, accommodation and food services:	6%	9%	9%	12%
Other services (except public administration)	5%	5%	7%	3%
Public administration	7%	14%	8%	6%

Source: US Bureau of the Census & peter j. smith & company.

Occupations

Occupation	Town of Champion	Village of West Carthage	Town of Wilna	Village of Carthage
Management, professional, and related occupations:	27%	28%	26%	28%
Service occupations:	15%	18%	17%	25%
Sales and office occupations:	24%	30%	22%	25%
Farming, fishing, and forestry occupations	1%	0%	4%	1%
Construction, extraction, and maintenance occupations:	10%	8%	10%	9%
Production, transportation, and material moving occupations:	22%	16%	22%	13%

Source: US Bureau of the Census & peter j. smith & company.

Fort Drum

Fort Drum is the single largest economic factor in the "North Country" region. Originally established in 1908, during the 1980s, Fort Drum was assigned to host a new light infantry division, later named the 10th Mountain Division, which led to a massive expansion of the base. Today, Fort Drum employs approximately 21,000 people, including 17,000 military personnel and 4,000 civilians who, combined, have a total payroll of nearly \$1 billion. In 2007, according to the Fort Drum Economic Impact Statement, the total economic impact of the military installation upon Jefferson, Lewis and St. Lawrence Counties, combined, was nearly \$1.5 billion. Among the factors included in this figure were payroll, services rendered, community housing, awarded contracts, local spending and governmental aid. It is also estimated that between 1988 and 2007, Fort Drum has had a total economic impact of \$10.5 billion.¹

¹ Fort Drum Economic Impact Statement. 2007. <www.drum.army.mil/sites/about/docs/FY07%20E1B.pdf> p. 3-28.



Entrance Gate to Fort Drum



A Photo-Simulation of an Arts & Cultural Waterfront Feature on Tannery Island Proposed for the Black River Waterfront as Part of the Waterfront Plan

Tourism

Tourism is a significant industry within Jefferson County. Due to the presence of major recreational attractions, including the Thousand Islands, the St. Lawrence River and the Adirondack Park, the County draws visitors from across New York State, Canada and the Northeast. In 2003, Jefferson County attracted more than 700,000 overnight guests, who spent more than \$200 million in the local economy.² This compares favorably with 2003 figures that reported 697,000 visitors, spending \$162 million.³ Furthermore, economic indicators reported for 2008, suggest that Tourism continues to be a growing industry within Jefferson County.⁴

The RACOG area is a less significant element of the Tourism industry in Jefferson County, however, there is potential for growth. The location along the Black River and focus upon outdoor recreational activities, such as whitewater rafting and hiking, positions the RACOG area well to take advantage of the same populations already visiting the Thousand Islands, St. Lawrence River and Adirondack Park areas. In 2008, RACOG commissioned "Destination: Blueway," a waterfront plan for the Villages of Carthage and West Carthage. The plan aims to restore the ecological environment, improve access and provide recreational activities to the waterfront. In regards to recent tourism development, a new hotel is being planned for West Carthage. A \$3 million development, the new hotel will feature 40 rooms. This project adds rooms for the tourism industry within the RACOG area, which presently lacks local accommodations.⁵

² David-Peterson Associates. "2006 Economic impact of Expenditures by Tourists on Northern New York State." 2006. p. 45-57.

³ David-Peterson Associates. "2003 Economic impact of Expenditures by Tourists on Northern New York State." 2003. p. 38-48.

⁴ New York State Department of Labor. "Labor Area Summary, Monthly Statistical Report." 2008.

⁵ Madsen, Nancy. "JCIDA approves loan for new West Carthage hotel." Watertown Daily Times. March 6, 2009.

Taxable Sales

As a means of evaluating regional economic trends, annual taxable sales for all industries were evaluated for Jefferson County. Figures reported by the New York state Department of Taxation and Finance were studied from 2000 to 2007. Following a slight drop in spending between 2000 and 2001, the County experienced a consistent growth in taxable sales through to 2006. During the months of March 2005 to February 2006, a relative peak was reached for the study period, which saw spending reach nearly \$1.5 billion. This was followed by an 8.9% decline through to February 2007.

The largest industry in Jefferson County, in terms of taxable sales, is retail, encompassing nearly \$800 million and 60% of all sales in the County. Within the retail industry, motor vehicle and automotive parts have the highest sales (\$226 million), followed by general merchandise (\$160 million) and building materials/garden equipment (\$109 million). The retail industry, as a whole, suffered significantly during the decline leading into 2007, losing 15.4% in taxable sales, compared to the year prior.

The second largest industry in Jefferson County is accommodations and food services, totaling more than \$130 million in 2007 sales and slightly more than 10 of the county's total taxable sales. Additionally, this was among the only industries to experience growth during every year of the eight-year study period, including from 2006 to 2007. These figures suggest a strengthening tourism industry in Jefferson County, capitalizing upon its natural resources, including the Thousand Islands, St. Lawrence River and, to a lesser extent, the Black River within the RACOG area.



Retail Corridor in Carthage

Economic Development

Discussions

As part of the Municipal Service Alternative study for the Villages of Carthage and West Carthage a meeting for the economic development functional group was conducted the results of which were several recommendations for the area. Some of the recommendations included: adopting similar building and property maintenance codes and expanding the jurisdiction of the Economic Development Corporation of Carthage to be community-wide.

Findings

The following are some key point identified in the economic conditions analysis:

- Assessment of the labor force and income shows that the Village of Carthage experiences the most economic hardship.
- Education, health and social services are the largest industry in the RACOG area.
- The majority of the manufacturing industry is concentrated outside the Villages.
- The occupation data for the RACOG area suggests that the Villages of Carthage and West Carthage have a relatively larger white-collar workforce than the Towns.
- Fort Drum is the single largest economic factor in the "North Country" region.
- Tourism, a growing industry in within Jefferson County, has the potential for growth in the RACOG area.
- Several features in the RACOG area are potential tourist attractions including the recreation features along the Black River that are showcased in the Waterfront Plan and in the plan for the Blueway Trail as well as the Olympic Byway, a recognized scenic byway that travels along Route 3.
- The two largest industries in terms of taxable sales are retail and accommodations and food services.

NATURAL RESOURCES

The RACOG area, which boasts slightly cooler temperatures and higher precipitation than other parts of New York State, is also home to a variety of natural resources. The summary below provides a brief introduction to the environment of the RACOG communities.

Physiography & Geology

The RACOG area is marked by three differing physiographic provinces that form the landscape of the region. The Town of Champion is generally within the Tug Hill plateau, while the Town of Wilna is part of the St. Lawrence lowlands to the west and the Adirondack province to the east. These three provinces relate to differences in the geologic formation of the area. Once covered by massive continental glaciers, the land was left with loose soil material as the glaciers receded. This process provided the area with a long geologic history, spanning between one billion year old bedrock to 10,000 year old soils. The geologic history has produced a topography in which steep slopes are generally concentrated among the rolling hills of Champion.

Hydrology

The RACOG area is part of three different watersheds: the Indian River watershed, Black River watershed and Salmon River-Sandy Creek watershed. The Environmental Protection Agency (EPA) defines watersheds as, "the area of land where all of the water that is under it or drains off of it goes into the same place." Maintaining the health of a watershed is crucial to ensuring the health, safety and welfare of a community. Currently there are several watershed initiatives being completed including: the Black River Watershed Initiative, Sandy Creeks EBM Initiative and Salmon River Watershed Natural Resources Assessment.

Water Bodies

Distributed across the two are winding streams and ponds that contribute to the respective watersheds. The three major water bodies in the RACOG area include: the Black River, which divides Wilna and Carthage to the north and Champion and West Carthage to the south; the Indian River which meanders across the northern portion of Wilna and through the hamlet of Natural Bridge; and Pleasant Lake, a small lake surrounded by permanent and seasonal residents, in the southeastern portion of Champion.

Floodplains & Wetlands

The Federal Emergency Management Agency (FEMA) identifies and maps floodplains. The 100-year flood zone, also known as the Special Flood Hazard Area (SFHA) is an area of land that has a 1% chance of flooding in any given year. Flood zones in the RACOG area generally surround the major rivers, and creeks including the Black River, the Indian River, Deerlick Creek, Mill Creek and Huddle Creek as well as Pleasant Lake.

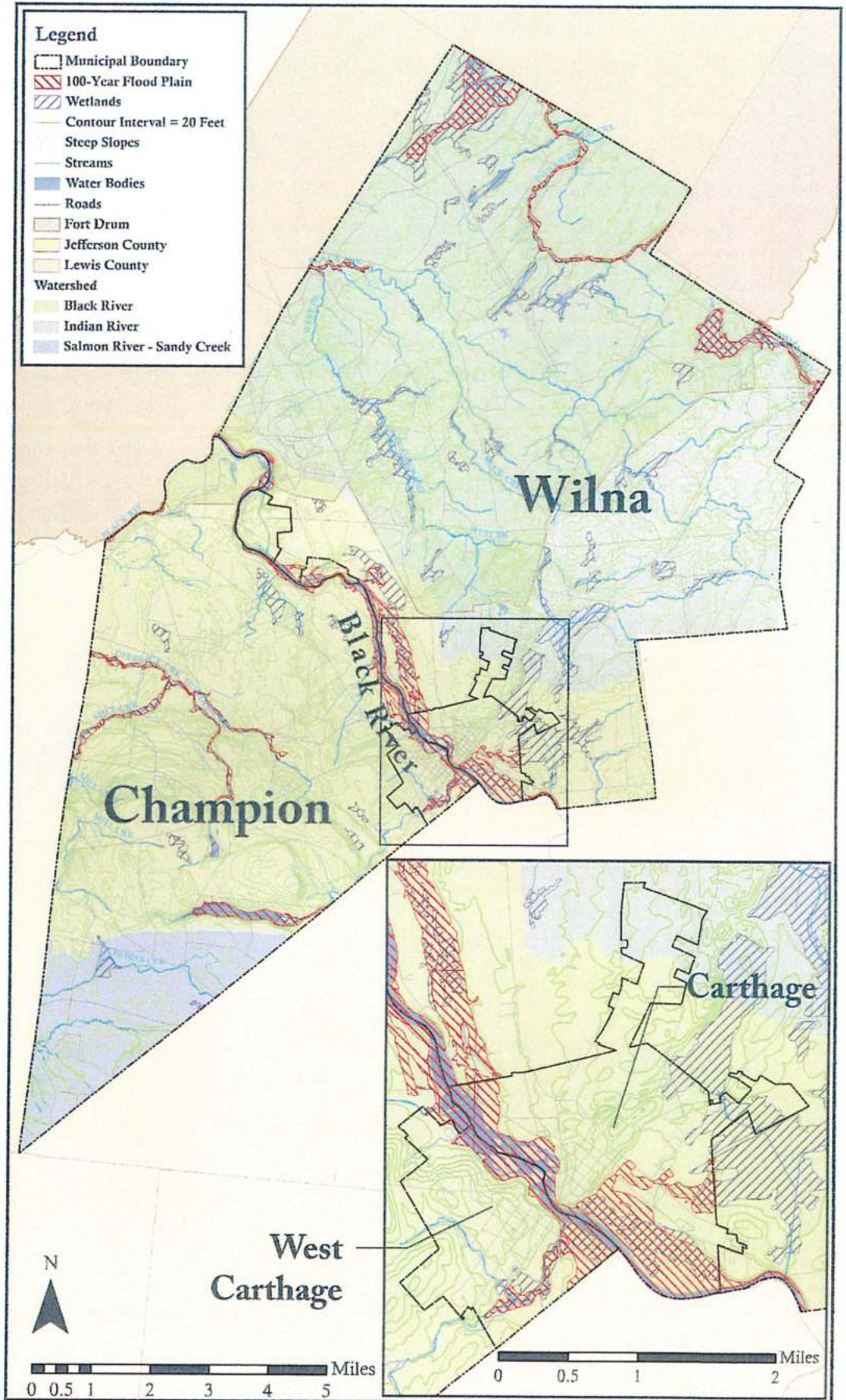
Wetlands in the RACOG area are scattered more widely across the communities, particularly in Wilna. According to the EPA wetlands are, "areas where water covers the soil, or is present either at or near the surface of the soil all year or for varying periods of time during the year, including during the growing season." Wetlands provide habitat for plants and animals, help absorb and slow floodwaters and absorb excess nutrients, sediment and other pollutants before they reach rivers, lakes and other water bodies. To prevent the loss of wetlands, the New York State Department of Environmental Conservation (NYSDEC) and the US Army Corps of Engineers (USACE) jointly regulates these resources.

Findings

The following are some key points identified in the natural resources assessment:

- Proper watershed management is critical for the health of the environment. Several watershed initiatives have been conducted for watersheds in the RACOG area that can help guide watershed management in the region.
- With floodplains generally concentrated along the river and creek corridors, waterfront development needs to be appropriately planned.
- With wetland scattered throughout the RACOG, development needs to be conscious of the location of wetlands and ensuring the protection of the environmental resources.

Natural Resources Map



OPEN SPACE & RECREATION

A number of recreation programs are active in the RACOG communities, offering sports for the communities' youths and adults. Recreation facilities are located in parks, schools and the Carthage Youth Club/YMCA. The communities have successfully used grant funding in the river park system.

Recreation programming and services are provided by the RACOG communities, the schools and through the YMCA. The area has a number of active organizations including Little League, Pop Warner football, soccer, Boy Scouts, Girl Scouts, 4-H, softball, Boys Club and others. The Watertown Family YMCA has partnered with the Branaugh Memorial Youth Club in a total renovation of the club's 250 State Street facility and its transformation into the Carthage YMCA branch of the Watertown Y.

The four communities contribute to a Swimming Pool Commission, but the community pool, first opened in 1953, has been closed for a number of years. The Twin Village Pool is a portion of a creek that has been dammed to provide a safe swimming area. In 2008 discussions among the RACOG member communities were underway to determine a direction for the future of the pool. Community summer swimming programming is provided at the school pool. Carthage has a recreation director on staff, a part-time recreation program director is on the West Carthage staff. The towns do not have paid recreation staff.

The communities have been successful in seeking grant funding to increase access and enjoyment of the Black River, including development of Long Falls Park. Summer recreation programs are also provided by Carthage and West Carthage. With the YMCA, RACOG sponsors "Summer Splash." This program provides access to the Carthage Central School pool for open and family swim during July and August. Transportation from village recreation programs is provided by RACOG and swimming lessons are available. Summer Splash is free for all residents of RACOG communities.

In addition to programs available through schools recreation programming is offered by the Carthage YMCA, a branch of the Watertown Family YMCA. The Y has a gymnasium and basketball court at its downtown Carthage location and offers a variety of programs including aerobic and fitness classes available by membership in the YMCA or for a fee.

A joint ad hoc committee exists to address recreation issues in the RACOG. Among its activities, the committee commenced work in 2003 on a trail map of existing trails in Carthage and West Carthage cooperatively with Carthage Central School students and the Branaugh Memorial Club and Carthage Area Hospital.¹ The effort was a 2005 NYSGIS Partnership Award Winner.

The formation of the committee is consistent with one of the recommendations from the Municipal Service Alternatives study for the Villages of Carthage and West Carthage. Among other recommendations of the study was the development of a recreation master plan for the four municipalities.

¹ RACOG.org



Turning Point Park

School Recreation Facilities

The Carthage Central School District provides recreational opportunities for the community through several of its educational and administrative facilities. School facilities within the RACOG include:

Carthage High School/Middle School

The main campus, located at 36500 NYS Route 26 has three soccer/lacrosse fields, one baseball field, one softball field, one indoor swimming pool, three gymnasiums and six tennis courts.

Along Cole Road there are also two soccer/lacrosse fields.

West Carthage Elementary School

The new West Carthage Elementary, located at 21568 Cole Road has one soccer/lacrosse field, one playground and one gymnasium.

Carthage Elementary

Located at 900 Beaver Lane, Carthage Elementary has one soccer/lacrosse field, one gymnasium and one playground.

Municipal Park Facilities

The municipal park facilities in the RACOG include:

Carthage Village Park

Located on Park Drive in the Village of Carthage, Carthage Village Park features playing fields and a recreation center that is available for community use by reservation and for a fee.

Getman Park

Getman Park in the Village of West Carthage features playing fields and community recreation resources. It is home to the annual Twin Villages Community Picnic held in September each year. The park is located on Franklin Street in the village.

Village Green Park

Village Green Park is under development in the Hamlet of Champion by the Town of Champion. The site has been owned by the town since 1807. It was the site of the first church and school in Jefferson County. It is the Town's intention to develop the wooded park, which overlooks the hamlet, in an appropriate 19th century manner. A \$5,000 grant from the North Country Community Foundation funded installation of a fireplace to help teach children about pioneer cooking techniques.

Town of Wilna Community Center

Play equipment is available at the Town of Wilna Community Center in Natural Bridge.

River Recreation Facilities

The recreation facilities along the Black River in the Villages of Carthage and West Carthage were carefully reviewed as part of the Waterfront Plan for the Villages. In addition, the Plan suggested a variety of additional recreation facilities along the River that will provide a linked recreation system at the Villages.

Existing recreation facilities along the Black River include:

Long Falls Park

Long Falls Park is located in the Black River in the Village of Carthage. Facilities include public restrooms, kiosk and a bridge to Guyots Island. Additional improvements planned include a shoreline trail, additional parking and picnic pavilion. A Phase 1B archaeological study has been completed for Guyots Island and planned public access related improvements should go forward in 2009. A \$112,000 state grant was awarded to the Village of Carthage in 2006 to assist with this project.

Turning Point Park

Turning Point Park is so named because the spot was the terminus of the Black Rock Canal of New York State Canal System. The park, off State Street in the Village of Carthage has a developed boardwalk and river overlook, gazebo and abundant public parking. A boat launch is also located here.

South Main Street Boat Launch

Located on South Main Street in West Carthage the boat launch also features a floating dock.

Long Falls Hydroelectric Project Recreation Area

Accessed via a gate adjacent to the West Carthage Department of Public Works garage, the Long Falls hydro area features a signed trail, picnic table and river access. The trail continues over a bridge to an island offering river views.

West Carthage Beach and Boat Launch

This resource is located on the north edge of West Carthage adjacent to the wastewater treatment plant. The beach is not a New York State bathing Beach under the state sanitary code and any swimming that takes place here – or elsewhere along the river for that matter – is informal and unsanctioned. Floating docks are provided and a semicircular drive allows access for trailers at the ramp.

Herrings & Deferiet

There are three boat launches in Herrings, one is located at the Herrings hydro project and two at the Deferiet hydro project. Shoreline fishing is available in Deferiet.

Great Bend Felts Mills Recreation Trail

A trail running parallel with the river from Felts Mills to Great Bend is located in an area otherwise not accessible to the public.

Findings

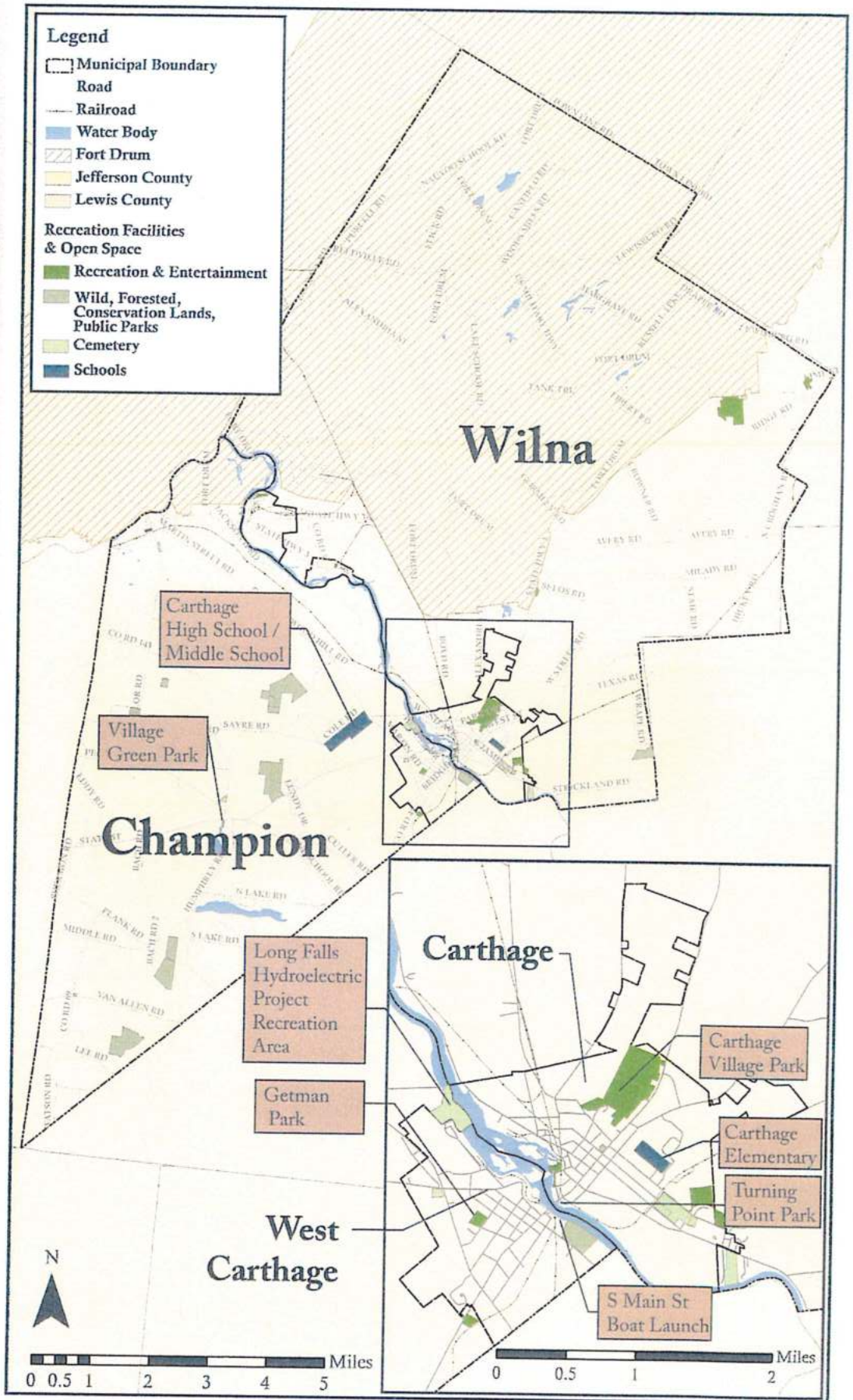
The following are some key point identified in the recreation and open space assessment:

- The recreation system in the RACOG consists of town, village and school facilities as well as some private recreation facilities.
- The communities have formed an award winning ad committee to address recreation issues.
- The need for a recreation master plan for the RACOG area has been suggested by community recreation stakeholders.

Long Falls Park



Recreation and Open Space Map



INFRASTRUCTURE

Proper infrastructure is needed for a community to function appropriately. As such, assessing the availability and capacity of a community's infrastructure is a critical element to planning for future development. The following is a summary of the existing infrastructure in the RACOG.

Solid Waste

None of the RACOG communities provide curbside trash pickup. However, there are several private companies in the area that do provide this service. Trash is hauled by the carriers to a regional landfill that is outside of the RACOG area. Town of Champion residents have a transfer site available to them in the nearby Town of Rutland. The transfer site accepts trash for a small charge and separated recyclables at no charge. The Town of Wilna also has a transfer station at the north end of the Town on Avery Road (County Route 40). The Village of West Carthage will pickup yardwaste such as branches and leaves for its residents. Both compost and wood chips are made available free of charge.

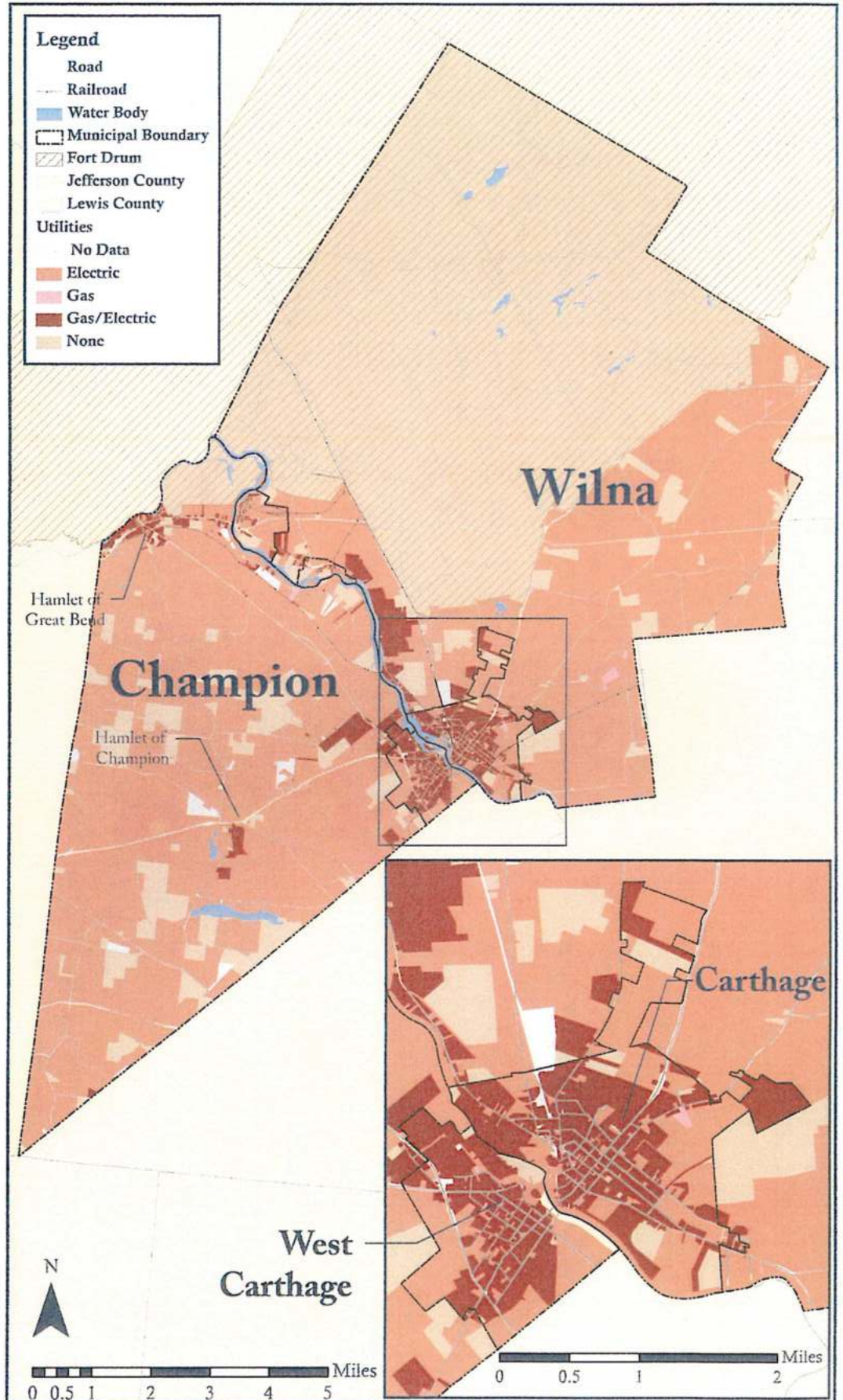
Electricity and Gas

Gas and electricity infrastructure the RACOG area are owned and maintained by National Grid. Though National Grid owns the infrastructure and is the default energy provider, customers are now allowed to purchase gas and electricity from a variety of suppliers, known as Energy Marketers or Energy Suppliers. National Grid also allows customers to purchase electricity from renewable energy companies in order to support the development and generation of renewable energy (wind, solar, biomass, and/or hydro). Customers choosing this option will pay a slight premium between one and one point six cents per kilowatt hour. National Grid's sources of electricity generation are:

Biomass - less than	1%
Coal	11%
Gas	8%
Hydro	34%
Nuclear	40%
Oil	5%
Solar - less than	1%
Solid Waste	2%
Wind - less than	1%

All properties in the RACOG area have electricity available to them though not all are developed and have a service connection. Gas service is available in the more populated areas of the RACOG area. Properties that do not have gas service and would like to, must approach the utility (National Grid) directly in order to apply for a connection or an extension of supply lines. Property owners sometimes approach the utility as a group with a request to extend service lines in order to make it more affordable for the utility. And sometimes municipalities will work with property owners and the utility in order to facilitate the extension of service lines though the municipality is ultimately not responsible for providing gas or electric service.

Utilities Map



Water

There are several domestic water treatment and distribution systems within the RACOG area as described below:

Carthage/West Carthage Water System

The Villages of Carthage and West Carthage jointly own a water filtration plant located on West Street Road in West Carthage, however, the water distribution system (pipes, valves, etc.) are owned by the individual Villages. The cost to operate and maintain the filtration facility is paid for by the Villages based on water use; approximately two-thirds for Carthage and one-third for West Carthage. Nearly all properties in both villages are served by the domestic water system as are some portions of the Towns of Champion and Wilna that are adjacent to the Village/Town boundaries. In 2008, there were approximately 1,800 water service connections serving approximately 7,000 individuals.

The Carthage/West Carthage water source is the Indian River, a spring fed source located in Belfort, New York. The Villages own 1,500 acres of uninhabited forest land that surrounds the water source. The water flows into a reservoir approximately two miles downstream. Once the water enters the reservoir a process of settling occurs before it passes through a screen and then into a 15-mile transmission line to the Villages Filtration Plant located on West Street Road.

The water production at the facility varies from year to year with 2008 having the lowest pumping rate on record with a daily average of 437,325 gallons per day (gpd). Of that total, 274,325 was used in Carthage and 169,470 was used in West Carthage. There are several reasons for the reduced production; aggressive leak detection and repair, conversion of a military housing development to private leaving it temporarily vacant, and an increasing number of vacant homes.¹

In the Village of Carthage water was sent to the following user types by percentage:

Industrial	1.871%
Commercial	20.683%
Multi-family	12.318%
Public Facilities	3.361%
801 Housing	5.760%
Single and Double-family Homes	56.008%

The capacity of water filtration facility has a normal operating target of 750,000 gpd but can treat up to one-million gpd. With the 2008 production at 437,325 and a maximum production of one-million, there is ample room for population growth in both villages and/or an expansion of the service area.²

¹ Mr. Ernie Priervo, Village of Carthage Water Department
² *ibid*

Town of Champion

The Town of Champion has five water districts, some of which have their own water supply outside of the Carthage/West Carthage joint system and the DANC service area (see DANC following). The supply for these systems are wells located at several locations. The Town has recently drilled some wells off Cole Road that will be coming online in the spring of 2009. Beyond that, there are no immediate plans for expansion of the system.

Town of Wilna

The Town of Wilna has two water districts but they do not supply any water. District number one purchases water from the Carthage/West Carthage water filtration plant and district number two (Natural Bridge) gets water from the DANC supply (see DANC below).

DANC

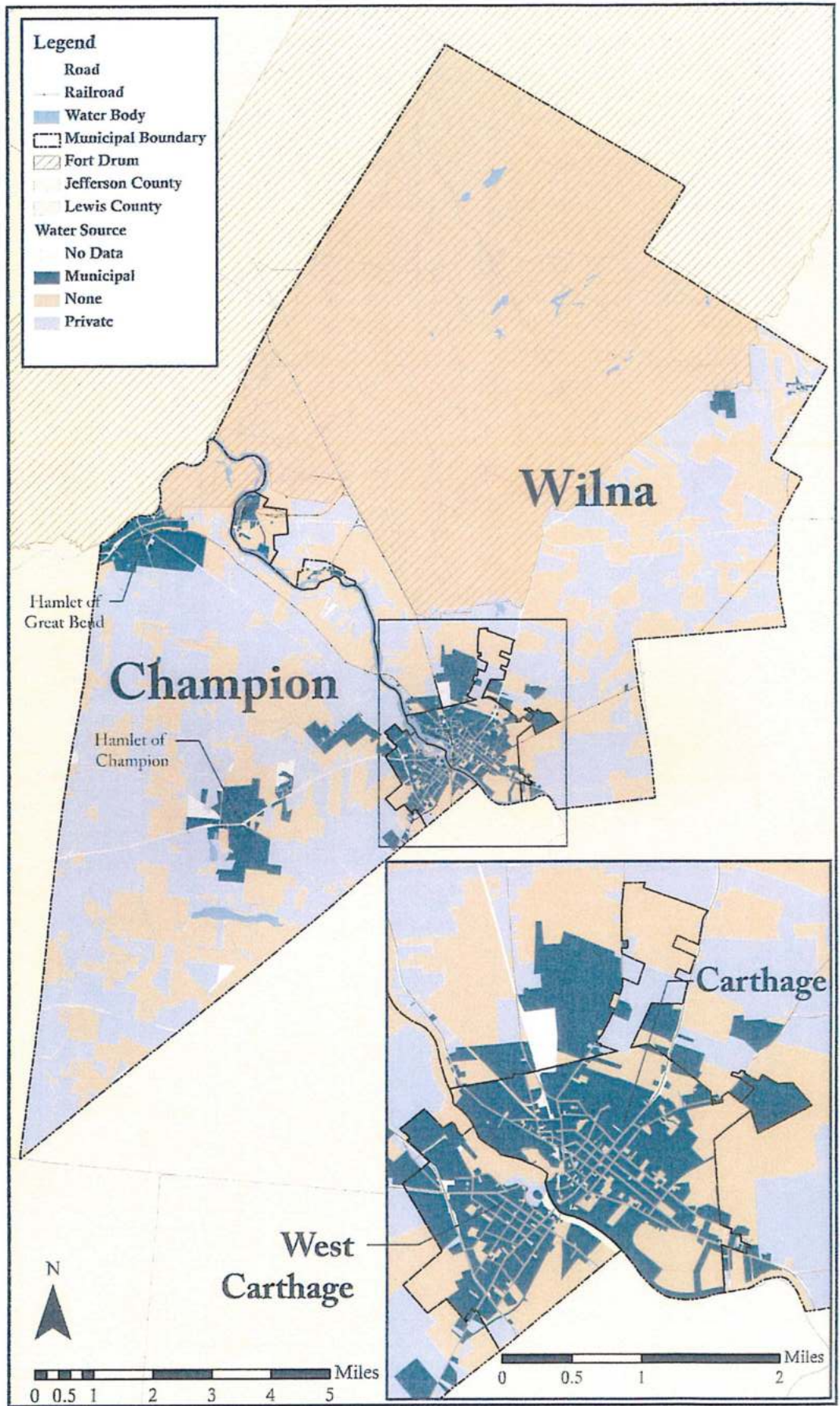
Another provider of domestic water in the RACOG area is the Development Authority of the North Country (DANC) that contracts with the City of Watertown for domestic water and wastewater treatment for a large area including, Fort Drum and sections of the Towns of Pamela, LeRay, Rutland, Watertown, Champion, and the Village of Black River. Within the RACOG area, DANC provides service to the Hamlet of Great Bend and Fort Drum which occupies a large portion of the Town of Wilna and small piece of the Town of Champion. The water filtration facility in Watertown that provides water for the DANC service area "can treat up to 15 million gpd but as of March 2008, on average, 5.5 million gpd is processed through the facility"³ leaving ample room for an expansion of population or extension of the service area.

Wells

Outside of the water system service areas described above, RACOG area residents rely on individual on-site wells which are regulated by the New York State Department of Health, and administered locally by the Jefferson County Fire Prevention and Building Code Office. In addition, most properties in the RACOG also have their own individual on-site systems (septic system) to treat wastewater (See Wastewater Treatment following). The NYS Department of Health's requirements for setbacks between a well and a septic system is a minimum of 100-feet for a homeowner (200 feet if the well is downslope of the septic system) which effectively creates a minimum residential lot size. Therefore, if higher density housing is desired in any of the areas outside of the water and sewer service areas, services must be extended.

³ Fort Drum Growth Management Strategy - Jan. 2009 Behan Planning & Design - email from Gary Pilon, City of Watertown

Water Source Map



Wastewater

Carthage/West Carthage

Similar to the arrangement for the water treatment facility, the Villages of Carthage and West Carthage jointly own the wastewater treatment plant located in West Carthage on Hewitt Drive, but individually own and maintain their wastewater collection systems (with the exception of two pump stations in Carthage and all major flow meters). There are about 1,800 service connections to the Carthage/West Carthage system. The wastewater treatment plant is permitted to treat four million gallons per day (mgd) though it currently processes volumes ranging from one to two mgd (volumes are higher in the summer and during periods of rain or snowmelt)⁴. The reason for the high capacity at the plant is that it was built in the early 1970s when there were several paper mills operating that were the chief producers of wastewater. Now that most of the paper mills have closed, the wastewater treatment plant has the capacity for a significant increase in population or extension of its service area.

The wastewater collection systems in both villages is separate from the stormwater systems – there are no combined sewer overflows (CSOs). However, there is inflow of stormwater through leaks in lines, manholes, and illegal connections of roof leaders, etc. In spite of this, the “spikes” in flow caused by stormwater are within the permitted volumes at the wastewater treatment plant.

DANC

Similar to the water service arrangement, DANC provides wastewater treatment to some areas in the Towns of Champion and Wilna. The City of Watertown owns and operates a wastewater treatment plant that treats wastewater from the DANC service area. The City's treatment plant is permitted to treat 16 mgd. Between 2003 and 2005, the plant treated 13.4 mgd on average, 3.5 mgd of which is from the DANC service area. Though these averages are within the permitted amount, the maximum monthly flow was 20.2 mgd, of which, 5.3 mgd comes from the DANC service area. These “spikes” in flow, caused by high rainfall or snowmelt, are being addressed by the City in a long-term plan to reduce stormwater inflow. Though the City of Watertown's wastewater treatment plant does not have a high volume of capacity available, the small percentage that could be added by growth in the RACOG area should not cause any problems and therefore will not cause any restrictions on RACOG area growth.

Septic Systems

Properties outside of the Carthage/West Carthage or DANC service area must install their own Individual On-site Systems (septic systems); usually a septic tank and drainfield. Septic systems are regulated by the New York State Department of Health; regulations are administered locally by the Jefferson County Fire Prevention and Building Code Office. These regulations are designed to protect and restore groundwater resources for drinking water purposes and

to assure protection of public health, welfare and the environment. Septic systems can have a direct impact on the integrity of both groundwater and surface water sources. Improperly functioning and poorly maintained systems can contribute pollutants to nearby streams and groundwater. Therefore, proper septic system function and maintenance is of long term importance for the RACOG. And while the design and installation of septic systems is regulated, in New York State there is no requirement for regular inspections, monitoring or maintenance of these facilities. Instead, it is up to individual property owners to conduct inspections, pump septic tanks and take other steps to ensure that systems are operating properly and that no untreated wastewater is leaving the site.

While there are numerous problems with septic systems, they do allow development of sites that are remote and not economically feasible to extend sewer service. Wherever feasible though, the RACOG should extend sewer service to take existing septic systems offline eliminating concerns about water contamination due to poor maintenance or unsuitable soil conditions.

As previously stated under the preceding chapter on water, the NYS Department of Health's minimum requirements for setbacks between a well and a septic system is 100-feet for a homeowner (200 feet if the well is downslope of the septic system). This effectively creates a minimum residential lot size of about three quarters of an acre. Any attempt at creating smaller lots and higher housing densities in un-sewered areas will require a developer to either create a development-wide wastewater treatment system and the associated management organization or to tie into the Carthage/West Carthage system or into the DANC sanitary sewer system. Developments that have more than 49-units are automatically required to have their own water and wastewater system or be tied into municipal systems.

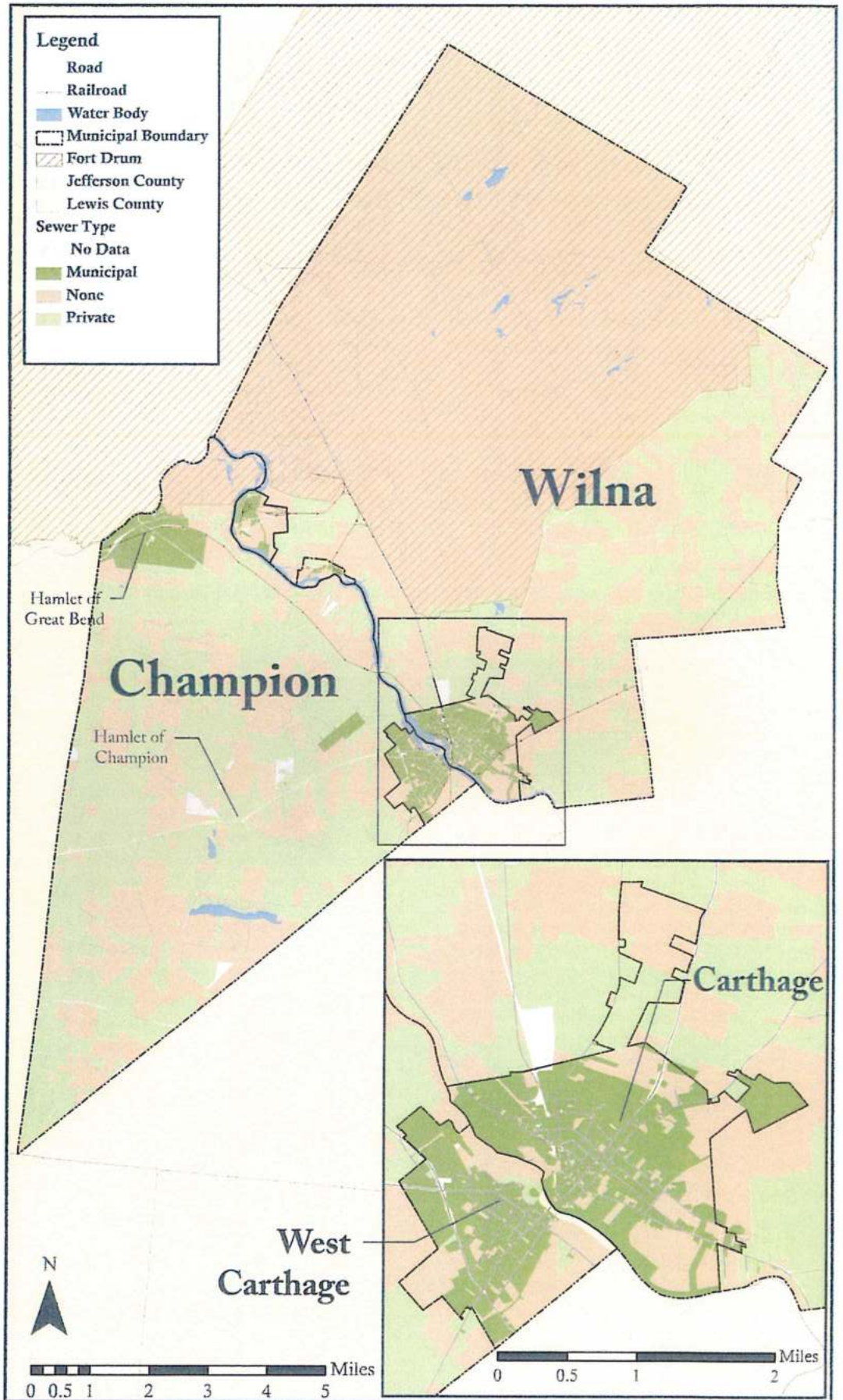
Findings

The following are some key point identified in the infrastructure assessment:

- All properties in the RACOG are have electricity available to them though not all are developed and have a service connection.
- The Carthage/West Carthage water source is the Indian River, which is surrounded by 1,500 acres of Village owned uninhabited forest.
- The capacity of the water filtration facility in the Villages has ample room for population growth in the villages and/or an expansion of the service area.
- The water treatment facility in the Villages was built in the early 1970s when there were several paper mills operating, therefore the facility has the capacity for significant increase in population or extension of services.
- If higher density is desired in any of the areas outside the water and sewer areas, services must be extended.

⁴ Dave Quinta – Chief Plant Operator - Personal Communication 3-17-09

Sewer Type Map



COMMUNITY FACILITIES

Community facilities help maintain the quality of life in a community. The following summary is a brief introduction into the community facilities in the RACOG.

Health Care Facilities

Emergency health care, acute care and community wellness services are provided to the residents of the RACOG by Carthage Area Hospital. Carthage Area Hospital is a 78-bed primary care hospital. Its service area includes eastern Jefferson County, western Lewis County, and southern St. Lawrence County. The hospital is located on West Street Road in the village of Carthage. The hospital also includes a 30-bed skilled nursing unit certified by Medicaid and Medicare.

In addition to its on-site services, the hospital has a number of satellite clinics in surrounding communities. A Veterans Administration Clinic offering care to veterans in the Watertown area is located on Bridge Street in the village. A Community Dental Clinic offering diagnostic and general dentistry is also located on Bridge Street. School-based health centers are located in the Carthage and Harrisville central school districts and Guardino Elementary School in Clayton. The hospital also operates a school-based dental clinic in the Harrisville Central Schools.

The Carthage Area Hospital Community Foundation, a 501(c)(3) non-profit charitable organization with offices on State Street in the village raises money in support of the hospital and its programs. (All Carthage Area Hospital information: www.carthagehospital.com/)

Nursing home care is also provided by Country Manor Nursing and Rehabilitation Center located on West Street in the village of Carthage. Country Manor is a privately owned-and operated, 90-bed facility. It is certified by Medicare and Medicaid. (Cite: http://www.nyhealth.gov/facilities/nursing/facility_characteristics/pfi0381.htm)

Carthage Care at Home, a licensed home health care agency, contracts with the Jefferson County Office for the Aging, Jefferson County Public Health Service and Jefferson County Department of Social Services providing in-home health care aides, personal care aides and housekeepers. (Cite: <http://www.carthagecare.com/>)

Schools

There are two school districts within the RACOG area, Carthage Central, which serves the Villages, the Town of Wilna and the northern portion of Champion and Copenhagen Central, which serves the southern portion of Champion.

There are five schools within the Carthage Central School District: Black River School, Carthage Elementary School, Carthage Middle School, Carthage Senior High School and West Carthage Elementary School. Within the Copenhagen Central School District there is only one school, Copenhagen Central School.

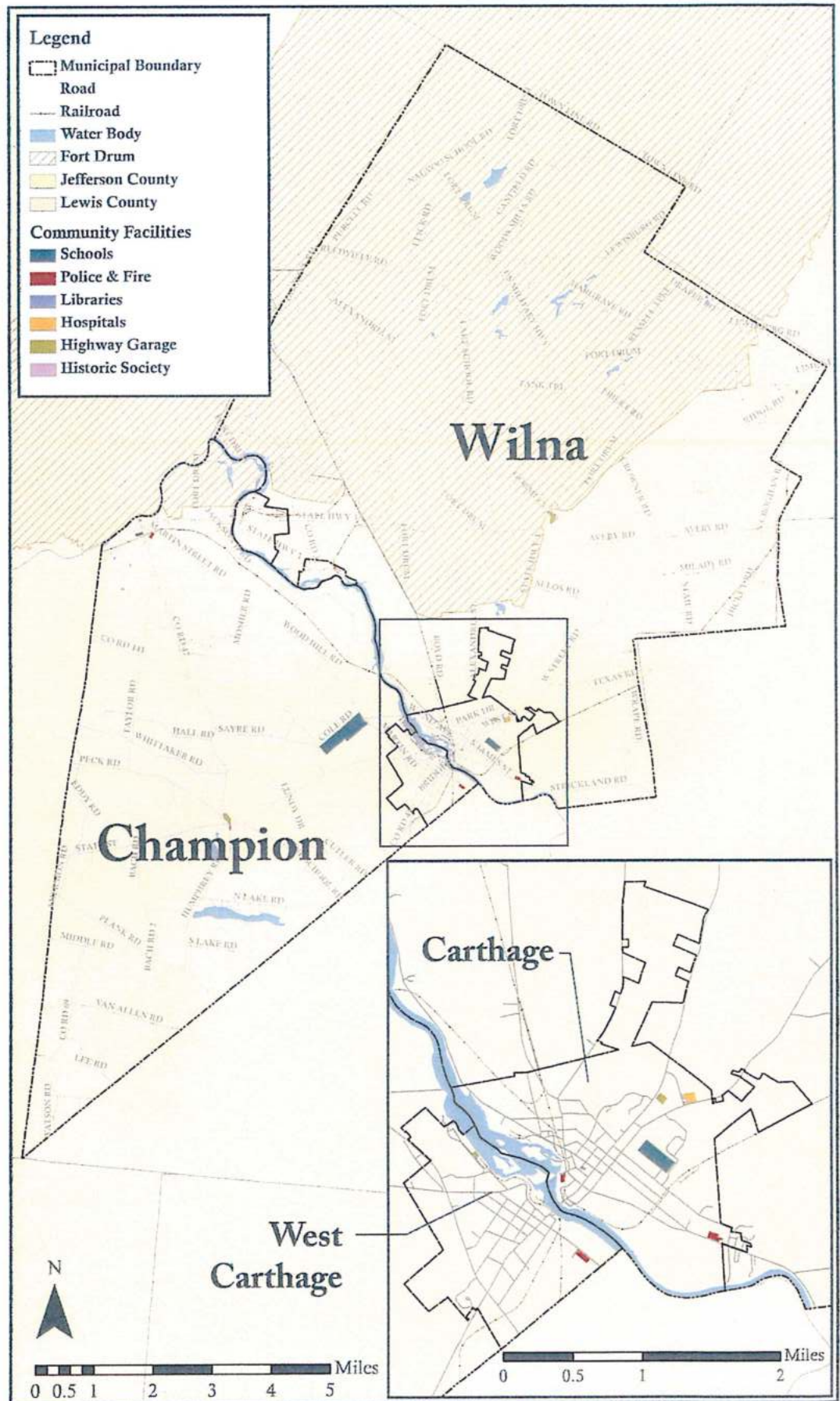
The New York State District Report Card, Accountability and Overview Report for 2006 - 2007 shows that an increasing enrollment in the district since the 2004 - 2005 school year while the Copenhagen Central School District enrollment numbers dropped in the 2006 - 2007 school year. In the 2006 - 2007 school year the percent of classes taught by teachers without appropriate certification was 1% and 3% for Carthage Central and Copenhagen Central, respectively. In the same year the average class sizes for grades 1 - 6 was 20 in Carthage Central and 17 in Copenhagen Central. Both districts overall accountability status for 2007 - 2008 were in good standing.

Historic Society

The 4 River Valleys Historical Society represents the historic background of the Beaver, Black, Indian and Deer River Valleys. The Society collects material from the three school districts: Copenhagen Central, Carthage Central and Indian River Central School Districts. Its mission is "to interpret, preserve, collect and make available evidence of the past and to further understand and appreciate the prehistory and history of the 4 River Valleys."

Historic Buildings

There are several buildings in the RACOG area that are listed on the National and State Register of Historic Places for their historic significance. These buildings include the First Baptist Church and Cook Memorial Building located at 511 State Street, the United States Post Office located at 521 State Street, the State Street Historic District and Wood's Grist Mill Site.



Library

The Carthage Free Library, located on 412 Budd Street, has been a part of the community since 1915. The library offers a variety of reading materials as well as several programs for adults and children. Computers, internet servers and printers are also available at the library.

Fire Departments

The Carthage/Wilna Fire Department is located at 685 S James Street. Information regarding the Fire Department can be found at www.carthagefire.org

The following is a summary of the Fire Department as provided on the website:

"Today the department is a 40 member volunteer department which has 1 paid fire driver on duty. 3 men work shifts of 24 hours on/48 off to ensure that there is a qualified operator in the initial response vehicle and that the initial response is immediate. Our average response time is under 3 minutes. Our forefathers saw the need to have paid drivers 125 years ago and they still exist today.

The department was originally a Village owned department until 3 years ago when a Fire District was formed. The Carthage-Wilna Fire District now serves the residents of the Village of Carthage and the areas surrounding the Village in the Towns of Wilna and Croghan."

The Village of West Carthage also has a Volunteer Fire Department, located at 61 High Street.

The evaluation of the fire services of the Villages of Carthage and West Carthage concluded that while consolidation would not improve either fire protection or the economics of fire protection, there are improvements to fire protection and economics available without consolidation.

Police Department

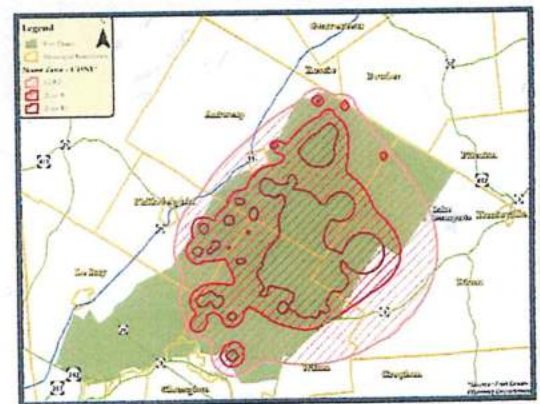
The Village of West Carthage Police Department is located at 23 Franklin Street. The Village of Carthage Police Department is located at 120 S Mechanic Street.

The Administrative Study of Consolidating the Village of Carthage and the Village of West Carthage Police Departments determined several advantages and disadvantages to consolidation. Advantages included consolidation mitigates several conditions which limit or reduce the effectiveness of law enforcement services, consolidation results in an improved level of quality and service, consolidation results in higher quality personnel and consolidation produces improved efficiencies and economies of scale. Disadvantages included loss of law enforcement services, consolidation has not been proven to be more effective than existing delivery systems, loss of control over the level and quality of service and consolidation may cost as much or more than the current delivery system.

Currently the Villages are actively considering the consolidation of the two police departments. On January 27, 2009, the Village of West Carthage, in conjunction with the Village of Carthage issued a Request for Proposals complete a Village of West Carthage and Carthage: Shared Police Service Feasibility Study.

Fort Drum

As discussed in the Economic Conditions section of the Report, Fort Drum is the single largest economic factor in the "North Country" region and plays a significant role in the development of the community. Therefore, a Growth Management Strategy was completed in January 2009 to prepare for the future development not only of Fort Drum, but also of Fort Drum's impact on the surrounding communities.



Demolition and Large Caliber Operational Noise Contours with associated land use classifications depicted which are located within the noise zones

Map from page 72 of the January 30, 2009 Fort Drum Growth Management Study Prepared for the Fort Drum Regional Liaison Organization by Behan Planning and Design with EDAW, Inc.

The key findings of the study included the following:

- Growth will have a significant influence on the regional landscape and quality of life
- If current development patterns continue, future growth will likely lead to encroachment conflicts
- Focusing growth in population centers can help to minimize encroachment and maintain quality of life
- It will take a sustained effort among many partners to successfully harness and manage the benefits of growth

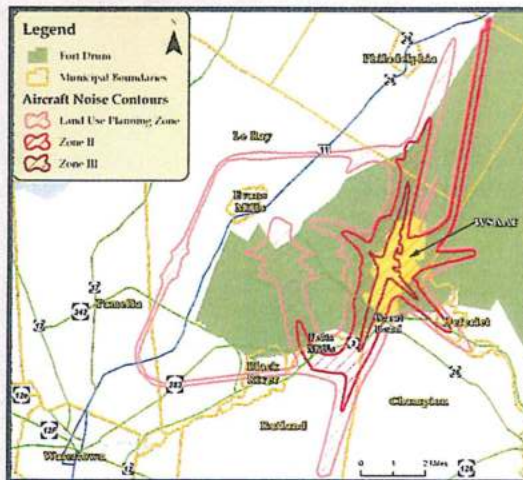
To manage these findings the study determines several strategies including a strengthened communication between Fort Drum and the communities, pursuing land use compatibility to avoid encroachment, enhancing reinvestment in population centers with existing infrastructure, taking a regional approach to transportation addressing major regional transportation corridor needs and pursuing sustainability through land use planning.

As part of the Growth Management Strategy, buffers were developed, guiding local communities toward appropriate land use planning. These buffers are depicted in the adjacent page and are utilized as a part of the Comprehensive Plan Future Land Use Plan.

Findings

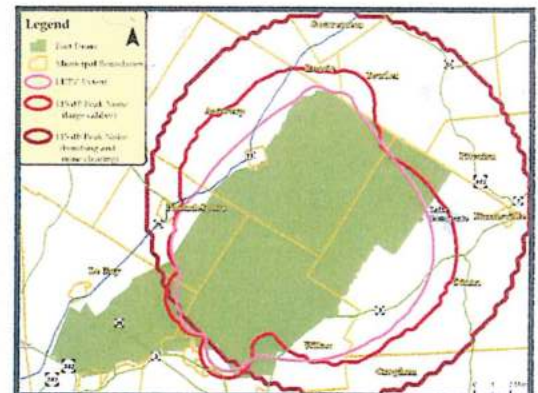
The following are some key point identified in the community facilities assessment:

- The RACOG area hosts a variety of health care facilities and programs including: the Carthage Area Hospital, a Veterans Administration Clinic, a Community Dental Clinic, school-based health centers, the Carthage Area Hospital Community Foundation, Country Manor Nursing and Rehabilitation Center and Carthage Care at Home.
- Both school districts in the RACOG area are in good standing according to the New York State District Report Card.
- The RACOG area has several cultural facilities that serve the community including the Carthage Free Library, the 4 River Valleys Historical Society and several nationally listed historic buildings.
- The two Village Police Departments are in the process of considering the benefits to consolidation.
- The two Fire Department serving the RACOG, while consolidation is not considered a beneficial solution are interested in working together for acquisitions and training purposes.
- Fort Drum is interested in working with the communities for a mutually beneficial future and have developed a buffer for the base that will help the communities develop in a way that works with the communities.



Wheeler-Sack Army Airfield Operational Noise Contours

Map from page 73 of the January 30, 2009 Fort Drum Growth Management Study Prepared for the Fort Drum Regional Liaison Organization by Behan Planning and Design with EDAW, Inc.



There are three primary noise areas that the communities should be aware of as shown on this map. The LUPZ shows the communities where the potential of average noise level conflicts could arise. The large caliber peak noise shows where the maximum area of 115 dB noise resulting from artillery operations at the Fort will occur 85% of the time. The noise contour with the largest extent (up to 7 miles from the Fort boundary) shows where the maximum area of 115 dB noise resulting from bombing and mine clearing will occur 85% of the time. (Data Source Fort Drum Planning Department)

Map from page 73 of the January 30, 2009 Fort Drum Growth Management Study Prepared for the Fort Drum Regional Liaison Organization by Behan Planning and Design with EDAW, Inc.

PUBLIC INPUT SUMMARY

Public involvement is key to developing goals, objectives and policy for the four RACOG communities. As part of the Comprehensive Plan, a vision session and an interactive public meeting were conducted to identify a clear direction for planning.

Vision Session

On September 15, 2008 a vision session was conducted with the River Area Council of Governments (RACOG) Comprehensive Plan Steering Committee. The vision session was a facilitated discussion regarding community character, the unique qualities of the four communities and the positive and negative impacts of growth on the communities. The discussion established the RACOG as small, family-friendly communities working together to maintain and improve the North Country quality of life. Elements that make the communities distinctive include the historic downtown in Carthage, the residential and industrial qualities of West Carthage, the heavily wooded qualities of Champion and the presence of Fort Drum in Wilna.

In respect to the recent development resulting from the Fort Drum expansion, the Committee optimistically noted the increase of goods and services the communities have been seeing. Development has brought more opportunities to the RACOG as well as an influx of community cash flow. Nonetheless, the Committee is cautious of the negative impacts of growth including the effects of uncontrolled growth, the increasing costs resulting from development and the loss of the community character in the RACOG. The Committee highlighted that, as the communities are just starting to see development, now is a critical time to plan for the future of the communities.



30 Steering Committee Vision Session

Interactive Public Meeting

The small town atmosphere and rural setting of the Carthage area emerged as the characteristics most valued by area residents who participated in a public workshop for the river area communities' Comprehensive Plans. The workshop was held in the West Carthage Community Room on October 30, 2008. There were approximately one dozen participants.

The evening's program began with an informational presentation designed to help participants understand the comprehensive planning process and the need for the new plans, participants were asked to share their opinions on a number of topics. This interactive portion of the program was two-fold: The first portion asked participants to give their personal opinions; the second asked them to work together with fellow participants to show development and preservation opportunities on maps that were provided for this purpose.

In the individual input portion of the interactive session, participants were asked to indicate the level to which they agreed with 10 development topics and 10 preservation topics in their communities. Participants were asked to use a scale of one to five where one indicated they strongly agreed with the statement, five indicated their strong disagreement and three indicating they neither agreed nor disagreed.

Participants most strongly agreed that the development of homes in the countryside is most appropriate for the Carthage area communities, followed by neighborhood development in a village atmosphere. While the consensus as presented by the aggregated scores shows that all 10 development types were supported by the workshop participants, those development types with mean scores over two were least supported. The development types with scores over two are mixed use, retail development, industrial development and townhomes and apartments.

Workshop participants strongly agreed that the

Black River corridor should be preserved, ranking it as their lowest-scoring and therefore highest priority. Downtowns, environment and rural character of the area were also strongly supported. As with the questions about appropriate development the scores show that all 10 preservation items were supported. The least supported for preservation was industry.

The table below summarizes the aggregated responses to the individual input portion of the session. Not all of the participants filled out the workbooks provided; other workbooks were received by mail later on. All workbooks that were received were aggregated.

Summary of the Public Input Workbook Results

Indicate the level to which you agree that the following types of development are appropriate for the Carthage Area:	Responses	Total Score	Mean Score
Homes in the countryside	11	17	2
Neighborhood development in a village atmosphere	11	19	2
Agriculture and farms	10	18	2
Hamlet centers offering small-scale downtown type services	11	20	2
Commercial development such as professional offices	11	20	2
Single family homes in subdivisions	11	20	2
Mixed uses such as stores with apartments and offices above	11	25	2
Commercial development such as retail shopping	11	27	3
Industrial development	11	28	3
Townhouses and Apartments	11	29	3
Indicate the level to which you agree that the following should be preserved in the Carthage Area:	Responses	Total Score	Mean Score
The Black River Corridor	11	12	1
Downtowns like Carthage and West Carthage	11	14	1
Environment	11	14	1
The rural character of the area	11	14	1
Neighborhoods	10	15	2
Open space such as fields and woods	10	15	2
Hamlet Centers such as Natural Bridge and Deferiet	11	19	2
Historic features such as buildings and landscapes	11	19	2
Agriculture and farming	10	18	2
Industry	10	25	3

Findings

The following are some key point identified during the public input program:

- The RACOG communities are considered a small, family-friendly communities that work together to maintain and improve the North Country quality of life.
- While development has brought more opportunities to the RACOG, the negative impacts of growth including the effects of uncontrolled growth, the increasing costs resulting from development and the loss of the community character in the RACOG is a central concern.
- The public workshop identified the small town atmosphere and rural setting of the Carthage area as the most valued characteristic by the participants.

