

Chad Spreadbury

Aging Infrastructure in Gilchrist County

Abstract

Although Gilchrist County is a rural county, it is dependent on its infrastructure like any larger county is. Its road system is impressive compared to other counties within the state but can be improved and is the largest aging infrastructure concern for the county. Likewise, the water resources used for recreational purposes are in relatively good condition but face threats from private and governmental interests as years progress. In resolving these issues, the greatest barrier is securing the funds necessary to carry out such maintenance and improvement. In addition, the projected increase in population accelerates the degradation of county infrastructure. Yet, the projected population growth will also increase the amount of tax dollars received by the county that can be used to make infrastructure advancements. Furthermore, funds needed to enhance the county's aging roads and water resources will be largely provided by state programs.

Introduction

Gilchrist County is a predominantly agrarian county situated in north central Florida. The county hosts three cities: Trenton, Bell, and Fanning Springs, which is shared with Levy County. Even as a rural county, infrastructure is of utmost importance and necessity for residents as it greatly influences their quality of life with respect to economics, health, safety, and leisure. For this reason, the county needs to address its aging infrastructure, particularly their paved and unpaved roads and their natural water resources.

Critical Issue No. 1

Gilchrist County contains about 350 miles of unpaved road, or dirt road. These dirt roads, like the paved roads, are maintained by the Road Department of Gilchrist County, which consists of 21 employees and Road Superintendent Mr. Billy Cannon. The dirt roads are kept up to par by use of road graders and dump trucks. However, natural phenomena such as rain and wind cause dirt roads to erode and become

uneven. Additionally, potholes can appear on the roads and entire washouts of roads can occur, which seriously hinder or completely prevent travel for nearby residents and others who use them. The erosion that dirt roads experience from washouts is much more extreme than that faced by paved roads as often entire sections of roadway can be destroyed. During times of heavy rainfall in the county, washouts can occur frequently which not only creates inconvenience for people through increased travel times and decreased accessibility but also increases the amount of money that must be spent to fix the issue. Besides rain and wind, automobile travel on dirt roads also reduces their integrity and causes dust to be upset into the air. This dust could potentially make those who breathe it in become ill. According to the U.S. Environmental Protection Agency (1998), breathing in dust increases the likelihood of developing respiratory sickness. In fact, illness due to airborne dust is a complaint that is occasionally brought up by the residents of the county.

Critical Issue No. 2

While Gilchrist County's paved roads are in great condition, they are beginning to limit the amount of traffic possible. In particular, State Road 26, which runs through the south end of the county, has reached its maximum traffic capacity (Ayers). State Road 26 is the main road that connects Gilchrist and Alachua counties together. This road plays an extremely crucial role in providing emergency services for county citizens. The nearest hospital for the people of Gilchrist County is located in Gainesville, which is approximately 30 to 40 miles away. Not only is this a lengthy distance to be covered during a serious emergency, but State Road 26 within Gilchrist County consists of only two lanes: one incoming lane and one outgoing lane. Despite the generous passing

zones, oncoming traffic can be heavy at times and thus can increase the travel time which may result in patient fatality. A California study found that a longer travel time to reach a hospital was associated with a 14 percent increase of chance of mortality (Preidt 2014). The narrowness of State Road 26 also causes Gilchrist County economic hardship as well. Mr. Bobby Crosby (2014), the County Administrator of Gilchrist County, believes that the current condition of State Road 26 limits the amount of economic development that can occur in the county. Many companies, plants, and residential developments that could establish themselves in Gilchrist County decline to do so on the basis that the road infrastructure is not built up enough to support such a business venture. Hence, the paved road system's lack of traffic capacity hinders the county's economy and the health of its citizens.

Critical Issue No. 3

Preserving the quality of Gilchrist County's environmental water resources is crucial for its identity, economy, and well-being of its citizens. The county contains a multitude of springs and the Suwannee River, which all provide recreational opportunities for residents and visitors alike through watercraft, fishing, and swimming. These water based activities along with the natural scenery that allows them are part of Gilchrist County's identity and are unique to the area. These activities also offer a chance for the county to bring in revenue from those using services and purchasing goods at local businesses due to their visitations. Additionally, the county's natural landscape offers citizens recreational outlets to enjoy. Not only do these outlets provide entertainment, but they also promote the health of the citizens through exercise and relaxation. According to the Sustainable Development Commission (2008), being

outside not only benefits your physical health but can also improve your mental health. However, industry, private interests, and state and other region jurisdictions seek to exert a demand on water resources. These demands could decrease the amount of water available for recreational activities or even lower the water quality making such hobbies impossible or unpleasant to perform.

Barriers

The largest barrier in resolving aging infrastructure problems in Gilchrist County with respect to the road system and the continuing conservation of natural water resources is funding. Expansion and paving of the county's road system would be a very expensive undertaking. For instance, converting the county's dirt roads to paved roads will cost "about a million dollars a mile." (Cannon 2014). That leads to a bill of about \$350 million dollars without even considering the fees associated with other improvements - a bill that would likely fall onto taxpayers and cause the county to acquire substantial debt. Another barrier related to these major infrastructure concerns is the projected population growth. The county's population is expected to grow as more of the Baby Boom Generation decides to retire (Ayers). With this increase in population comes more degradation on the existing road system and water resources. Consequently, more funds and effort will need to be allocated to maintain the infrastructure rather than build and improve upon it.

Solutions

Despite these unavoidable barriers to their aging infrastructure problems, Gilchrist County is taking steps to develop and utilize solutions. At this time, the county has a five-year road plan that is updated every year. Furthermore, the county attempts

to only pave roads through the use of grants from the Florida Department of Transportation (FDOT) and is currently trying to persuade the state to widen State Road 26. As for the condition of water resources in the county, grant money provided by the state is being allocated to improve and restore the local springs. Moreover, the county's projected population growth may allow for more revenue to flow into the county that can be used to maintain and increase the quality of the infrastructure.

Concluding Paragraph

Addressing the issues related to Gilchrist County's aging road system and water resources are major priorities as "[w]ithout infrastructure, you don't really have a county." (Crosby 2014). Funding, outside interests, and a growing population could limit the amount of conservation and renovation possible. Yet, at the same time those concerns may in fact become the solutions to these infrastructure dilemmas. Ultimately, enhancing and preserving the local aging infrastructure are essential for ensuring a good quality of life for the people of Gilchrist County.

Bibliography

Ayers, John M. "Gilchrist Commission accepts 2030 Vision statement."

<http://www.gilchristcountyjournal.net/07-30-09/07-30-09gcvision.html> (April 06, 2014).

Billy Cannon, personal interview, March 26, 2014, Mr. Cannon's office, Bell, FL.

Bobby Crosby, personal interview, March 24, 2014, Mr. Crosby's office, Trenton, FL.

Preidt, Robert (2014). "Trauma Center Closures Tied to Higher Death Risk for Injured Patients." *HealthDay News*. March 13.

http://www.nlm.nih.gov/medlineplus/news/fullstory_145088.html (April 7, 2014).

Sustainable Development Commission (2008). "Health, place and nature : how outdoor environments influence health and well-being : a knowledge base." March.

<http://research-repository.st-andrews.ac.uk/bitstream/10023/2180/1/sdc-2008-health-place-nature.pdf> (April 7, 2014).

U.S. Environmental Protection Agency (1998). "Finding of Failure To Submit Required State Implementation Plans for Particulate Matter; Arizona; Phoenix PM-10

Nonattainment Area." February 6. <http://www.epa.gov/fedrgstr/EPA-AIR/1998/February/Day-25/a4821.htm> (April 7, 2014).