Saturday morning in downtown Damascus, Virginia: a family of four from North Carolina stands outside Adventure Damascus Bicycles. They rented bikes and wait to board a 15 passenger van that will shuttle them to White Top Mountain where they will begin their ride on the Virginia Creeper Trail. After their ride down the mountain, the family rewards themselves with ice cream at In the Country Bakery and Eatery. The family decides to return soon, to bike the other 17 miles of the Virginia Creeper Trail from Damascus to Abingdon, Virginia.

Meanwhile, an Appalachian Trail thru-hiker wakes up down the street at the Lazy Fox Inn. Before heading back to the trail, the hiker stops by Mount Rogers Outfitters to replenish her supplies and buy new boots. She makes a note in her journal to return to Damascus next year for Appalachian Trail Days. This festival, sponsored by Backpacker magazine, draws thousands of former, current, and prospective Appalachian Trail hikers to Damascus every year on the weekend after Mother’s Day. This gathering is like a big family reunion; and it’s held in what is known by Appalachian Trail hikers as the “friendliest town on the trail” (Englert 2007).

On any given weekend, the streets of Damascus are bustling with hikers and bikers using one of the five recreation trails that converge in the town: the Appalachian Trail, the Iron Mountain Trail, the Trans-American National Bicycle Trail, the Virginia Creeper Trail, and the Daniel Boone Trail. These trails bring people to this mountain town, but the locally owned lodging facilities, recreation-oriented shops, and restaurants are what keep them coming back.

According to Will Rogers, president of the Trust for Public Land, a community does not need to compromise the conservation of natural resources for E.D.—the two can, and should, be pursued in conjunction with each other to improve the overall quality of a community (Lerner and Poole 1999). Outdoor recreation facilities, like greenways, offer communities an opportunity to achieve this goal. Damascus, Virginia represents a good example of how a town can maximize E.D. benefits by incorporating the conservation of natural and cultural resources through the development of greenways.

Could creating a greenway in your community achieve similar success?

Greenways

Most available literature on greenways focuses on their use as part of a land-use planning and development strategy (e.g. Boatright 2008; Fábos 2004; Flink et al. 2001; Searns 1995; Ahern 1995; Baschak and Brown 1995; Smith and Hellmund 1993). In 1995, the journal Landscape and Urban Planning published “Greenways: the Beginning of an International Movement” (Fábos and Ahern 1995) which discussed the advance of greenways as planning tools. This journal has since become a leading outlet for research.
on these and other recreational spaces. The most comprehensive study on the origin and history of the greenway movement in the U.S. is *Greenways for America*, which was written by Charles Little in 1990. Apart from this emergent body of academic research, much of the available literature on greenways comes from consulting firms, government agencies, and unpublished theses and dissertations (Crompton 2001a).

Public outdoor recreation spaces have long been a part of cultural landscapes across the world (Jones and Wills 2005), but the concept of linear parks (i.e. greenways) emerged in England and the U.S. in the latter half of the 19th century (Whyte 1968; Little 1990). Greenways offer a form of landscape conservation and have become a popular way to create recreation spaces. A greenway is defined by Little (1990) as

*a linear open space established along either a natural corridor, such as a riverfront, stream valley, or ridgeline, or overland along a railroad right-of-way converted to recreational use, a canal, a scenic road, or other route; an open-space connector linking parks, nature reserves, cultural features, or historic sites with each other and with populated areas* (Little 1990, 1).

The goals of greenways are threefold. They provide recreational opportunities, create corridors for wildlife, and promote rational E.D. (Little 1990, 30). Greenways are often created because of the lack of money and land available for large open-space conservation efforts (Little 1990). The acquisition of land can be difficult, thus developing greenways along existing environmental, cultural, and transportation corridors provides a more pragmatic and affordable method of obtaining outdoor recreation space. Rail-trails, in particular, offer a cost-effective way to create recreation space by using existing, but derelict, railroad infrastructure. Other examples of greenways include motorized parkways, such as the Blue Ridge Parkway that connects Shenandoah National Park in Virginia with the Great Smokey Mountains National Park in North Carolina, and non-motorized greenways, including long-distance hiking trails such as the Appalachian Trail and Pacific Crest Trail.

**Potential E.D. benefits of greenways**

Todaro and Smith (2003, 22) define local economic development (E.D.) as “a process whereby a community, via some combination of social, economic, and institutional processes, secures the means for obtaining a better life.” The primary objective of E.D. is to improve the community quality of life through increasing the availability of basic needs (i.e. housing, food, and clothing) and providing quality job and education opportunities (Todaro and Smith 2003). While this is a solid definition of E.D., it fails to acknowledge the role of a community’s physical landscape. E.D. should use both “human and physical resources to improve community quality of life and create a locally based economy” (Blakely and Bradshaw 2002, 53). Preserving open spaces, which appeals to both commercial and residential stakeholders, reflects one way that greenways can improve community quality of life (Campbell and Munroe 2007; Shafer et al. 2000; Moore and Ross 1998; Howser 1997). This is especially true for members of the “creative class” who particularly value outdoor recreation (Florida 2002).

Improving quality of life and creating E.D. are also key components in trying to achieve sustainability and Smart Growth. Definitions of Smart Growth, a progressive planning technique, are broad and sometimes altered to fit the needs of particular land management groups (Ye et al. 2005). The Smart Growth agenda is defined by Morris (2002, 3) as “growth that protects open space, revitalizes neighborhoods, makes housing more affordable and improves community quality of life.” Regardless of the definition, mitigating urban sprawl and promoting mixed land-use characterize the primary goals of this movement (Gabriel et al. 2006; Gatrell and Jensen 2002).
The concept of sustainability, a central theme in contemporary planning and E.D., has only recently been used to evaluate greenways. According to Shafer et al. (2000, 165),

facilities of any type, including trails, should be planned and designed for a balance among the economic, environmental, and social characteristics of an area so that its residents can lead healthy, productive, and enjoyable lives.

Benedict and McMahon (2002) echo this call for sustainable greenway planning and believe that planning green infrastructure should be an important part of community comprehensive planning. Although such sentiments are laudable, the exact roles of greenways and green infrastructure in sustainability initiatives have proven difficult to define (Wilbanks 1994).

Berke and Conroy (2000, 23) provide a definition of sustainable development that is particularly relevant to greenways:

a dynamic process in which communities anticipate and accommodate the needs of current and future generations in ways that reproduce and balance local, social, economic, and ecological systems, and link local actions to global concerns.

In addition, greenways can be compared with Berke and Conroy’s (2000) six principles of sustainability: harmony with nature, livable built environments, place-based economy, equity, polluters pay (or in the case of greenways and other outdoor recreation facilities, user willingness-to-pay), and responsible regionalism. The three goals of greenways—opportunities for outdoor recreation, creating wildlife corridors, and providing positive E.D.—correspond well with the livable built environment, harmony with nature, and place-based economy sustainability indicators.

On the other hand, Lindsey’s (2003) study of the Indianapolis greenway system illustrates how greenways can have both positive and negative impacts in terms of sustainability goals of the communities where they are located. Other setbacks for greenway development include perceptions of safety, liability, and decreased property values, as well as residents’ losing their feelings of privacy (Bowen 2007; Kaylen et al. 1993).

Potential tourism benefits of greenways

If a greenway has the potential to create local E.D., how can communities maximize these benefits? Perhaps the most valuable opportunity presented by greenways is tourism. The existing literature does not explicitly link greenways with a specific form of tourism, but given their characteristics, they are most logically the focus of nature-based or ecotourism (Valentine 1992; Mehmetoglu 2007; Weaver and Lawton 2007). The terms nature-based tourism and ecotourism have sometimes been used interchangeably (Mehmetoglu 2005; Orams 1996); however, even though both of these tourism subfields focus on tourism set in the natural environment, a distinction is often made between these two types of tourism. Mehmetoglu (2007) observes that some scholars believe nature-based tourism involves the direct use of natural resources for recreational purposes. In addition, adventure tourism can also be considered a subset of nature-based tourism (Laarman and Durst 1987).

Ecotourism differs from nature-based tourism in that it calls for environmentally responsible principles and practices from both tourists and tourism managers (Weaver and Lawton 2007). While nature-based tourism acknowledges the importance of conserving natural resources, it does not imply that a nature tourist will have a set of environmental ethics (Mehmetoglu 2007). Ecotourism can be further delineated into “deep” or “shallow” based on tourists’ motivations (Acott et al. 1998). As the name suggests, deep ecotourism incorporates a “deeper philosophical worldview” with the participation of an activity. Similar to nature-based tourism, shallow ecotourism refers to valuing nature based on its usefulness in carrying out recreational activi-
ties (Acott et al. 1998, 249). Some scholars believe that ecotourism represents sustainable nature-based tourism (Boo 1992 as quoted in Kiss 2004; Bjork 2000), and, depending on the definition of sustainable and the tourist’s motivations, this may be true.

Even though tourism has not been a primary focus of the existing greenway research, it has been included in studies on the economic impacts of trails and greenways (e.g. Bowker et al. 2004a, 2004b; Knoch and Tomes 2006; Vogt et al. 2002; Interactive Marketing Solutions 2002; PFK Consultants 1995). In 2006, a study of the Pine Creek rail-trail in north-central Pennsylvania revealed that 86 percent of the people using this trail lived in Pennsylvania and represented 56 out of 67 counties, suggesting it is an important tourist destination within the state (Knoch and Tomes 2006). Over half the survey respondents spent at least one night in conjunction with their trip to the Pine Creek Rail-Trail, spending an average of $69.08 per night on accommodations (Knoch and Tomes 2006).

Bowker et al.’s study (2007; 2004) on the Virginia Creeper Trail examines in more detail how much money tourists spend locally in conjunction with their trail visits. The Virginia Creeper Trail (VCT) is a 34-mile-long rail-trail located in Washington and Grayson Counties in southwest Virginia. Local and nonlocal trail users traveled an average of 154 miles to use this greenway (Bowker et al. 2004, 9). Nonlocal visitors who specifically traveled to the VCT for a day trip spent an average of $17.16 per person at businesses within 25 miles of the trail, while nonlocal visitors who stayed overnight spent an average of $82.10 per person within 25 miles of the trail (Bowker et al. 2004, 9). This implies that tourists who travel to southwest Virginia specifically to use the VCT are spending a substantial amount of money in communities near the trail. Additional examples of research measuring the local economic impact and the net economic value of tourists visiting trails include Moore et al.’s 1994 study of three rail-trails in the U.S. and Bennett et al.’s 2003 study of a recreation trail in the United Kingdom.

Another potential E.D. benefit from greenways is the development of new trail-related businesses or revitalization of older businesses to serve the needs of greenway users (Howser 1997). Cities and towns that contain greenways may especially benefit from clusters of businesses geared towards trail activities. For example, bike rentals, outdoor equipment stores, and restaurants give tourists the opportunity to spend their money locally along a greenway.

Research addressing the characteristics and patterns of trail users suggests that people participating in outdoor recreation, both local residents and tourists, have considerable disposable incomes to spend on trail-related items (Boatright 2008, Moore and Scott 2003, Lindsey et al. 2001, Shafer et al. 2000, Scott and Munson 1994, Furseth and Altman 1991). These items purchased at businesses along a greenway can be categorized as either “hard” or “soft.” Hard goods include bikes and bike accessories, clothing, hiking gear, or any other equipment necessary to carry out a particular recreational activity (Knoch and Tomes 2006). Examples of soft goods include food and drinks purchased in conjunction with a greenway visit (Knoch and Tomes 2006).

Local trail users and tourists can impact the local economy in different ways. For example, on the Longleaf Trace in southern Mississippi, 65 percent of trail users indicated that the trail influenced their purchase of recreation equipment (hard goods) (Boatright 2008). Local users on this trail spent over three times as much money on recreational goods as visitors, averaging $443.59 per person (Boatright 2008). Local trail users, on average, spend more money on hard goods in the local economy, presumably directly benefiting locally owned businesses. This is not surprising, as most trail tourists more than likely bought their equipment in their hometown. On the other hand, trail tourists can
benefit from outfitters if they need specific accessories upon visiting the trail.

Visitors to the Longleaf Trace had a greater impact on the local economy through purchasing of soft goods; nonlocals spent a total of $462.60 on food and beverages in conjunction with their trip to the trail (Boatright 2008). Although the Longleaf Trace is more of a local trail rather than a tourist destination, the trail has the potential to bring visitors to southern Mississippi; then again, there are few opportunities for tourists to spend their money in the local economy along the trail. Communities along the Longleaf Trace and trail users could benefit from clusters of businesses geared towards trail activities, especially places that can satisfy hungry and thirsty trail users like Lau-Tori’s Restaurant in Sumrall.

In a study conducted by Greer (2001), business owners along four rural trails in Nebraska expected a 63 percent positive impact on business activity within two years and a 68 percent positive impact in five years. Unfortunately, quantitative measurements were not taken for these businesses at the time of the study so it is impossible to determine the extent to which the trails had a positive impact on local businesses. However, as evident by the results of Bowker et al. (2004) and Boatright (2008) communities along the Virginia Creeper Trail can rely on revenues from businesses related to greenway use.

A third potential E.D. benefit is the effect of greenways on property values. Much of the existing academic literature on the economic impacts of greenways has focused on this topic. The findings indicated that accessibility to a greenway generally increases real estate property values, but quantification of this relationship is difficult (Correll et al. 1978, Iles and Wiele 1993, Crompton 2001a and 2001b, Nicholls and Crompton 2005, Campbell and Munroe 2007). Crompton (2001b) suggests that property values will be higher if they are in close proximity to open recreational space, but quantifying this increase in property values can be difficult.

Hedonic pricing models, combined with spatial analysis, have been most often employed as a means to measure the economic impact of greenways on property values (Nichols 2004, Nicholls and Crompton 2005). Hedonic pricing is a technique used to quantify various influences on property values so that properties in different locations can be compared (Nicholls 2004, Malpezzi 2002). Hedonic pricing models offer a way to quantify housing characteristics so that they may be compared with other types of housing (Malpezzi 2002, 2). For example, Campbell and Munroe (2007) used this approach to take into account potential distance decay effects in measuring real estate value near a greenway in Charlotte, North Carolina.

Proximity to a greenway is only one factor determining property value. Housing, structural, and community attributes also contribute to a property’s overall value (Nicholls and Crompton 2005). With this in mind, Nicholls and Crompton (2005) used a hedonic pricing model to estimate the property values in three communities along greenways in Austin, Texas. Two of the three study areas (Barton Creek and Travis Area) had a noticeable increase in property values the closer the property was to a greenway ($44,332 and $14,777, respectively) (Nicholls and Crompton 2005, 335). In the third study area, Lost Creek, proximity to a greenway did not have a significant positive or negative impact on property values.

A study by Campbell and Munro (2007) assessed how the proposed Catawba Regional Trail in Charlotte, North Carolina affected property values. The results of this study reveal that the closer a property is to a greenway, the higher its value. The mean sales price of properties within 5,000 feet of an existing greenway was also higher than properties farther away from a greenway (Campbell and Munro 2007, 128). This study calculated that the Catawba Regional Trail will cause a $588,327 increase in property revenues in the area (Campbell and Munro 2007, 133).
Caveats and cautions
Public outdoor recreation space is generally assumed to be available to all of the public, and generally speaking this is true, but problems arise in regard to equity and accessibility of outdoor recreation facilities. One concern has to do with the acquisition of land to supply the demands of a growing population. Rail-trails, for example, offer a cost-effective way to create recreation space by using existing but derelict transportation infrastructure. Further, because one of the attributes linear parks is spatial linkage, rail-trails help promote greater accessibility of recreation space. On the other hand, a growing body of evidence shows that minorities and low-income residents are less likely to participate in outdoor recreation activities associated with greenways regardless of their geographical proximity to them (Lindsey 2001, Shafer et al. 2000, Scott and Munson 1994, Dwyer and Hutchinson 1990).

Public outdoor recreation space has historically been more accessible to wealthier, well-educated whites; this is especially true for rail-trails (Moore and Scott 2003; Lindsey et al. 2001, 332; Furuseth and Altman 1991). Research on use patterns on the Virginia Creeper Trail in rural southwest Virginia reveal that 99 percent of respondents were white; 64 percent had at least a college education; and 54 percent had an average annual income between $40,000 and $120,000 (Bowker et al. 2004a, 11). Another study by the same researchers on the Washington & Old Dominion Trail in suburban northern Virginia showed similar results: 85 percent of respondents were white and 93 percent of respondents had an annual average income greater than $40,000 (Bowker et al. 2004b, 9-10). Solecki and Welch’s (1995) “green wall” theory suggests that perceived demographic differences may act as barriers between communities located adjacent to public outdoor recreation facilities. Further, Lindsey (2001, 333) notes that this perceived separation may lead to “a lack of use, community neglect, and eventually a lack of maintenance” for public recreation space, regardless of proximity.

Conclusions
The literature suggests that communities wishing to develop a greenway, or those located along an existing trail, could potentially achieve success similar to Damascus, Virginia. Sumrall, Mississippi, for example, could benefit from the creation of locally-owned recreation-oriented businesses, such as outfitters or food and beverage services. These businesses would offer visitors to the Longleaf Trace a destination point on the trail and give them the opportunity to spend money in this quaint southern Mississippi town.

While quantifying the economic impacts and net benefits of greenways can be difficult, trails offer a community the opportunity for sustainable, local E.D. These outdoor recreation spaces can increase property values and bring additional money to a community through tourism and recreation-oriented businesses (Moore and Ross 1998, Howser 1997). Even though tourism is considered one of the main reasons for developing a greenway, research specifically examining the relationship between greenways and tourism is sparse (Lumsdon et al. 2004, RBA Group 2002, Lane 1999, Moore and Ross 1998, Howser 1997, Moore and Siderelis 1995). Future research should attempt to more thoroughly examine the attitudes of greenway visitors to help greenway tourism find its place along the tourism spectrum. Studies should also address in more detail the direct impact of tourists on local E.D. (e.g., Bowker et al. 2007).

Greenways provide numerous benefits to the communities in which they’re located, the most recognizable of these being the creation of public outdoor recreation space and conservation of natural resources (Little 1990). It is important to keep in mind, however, that even though greenways can provide social, economic, and ecological benefits to a community, they can also create a separa-
Website review: americantrails.org

American Trails is the leading national non-profit organization focused on the development, protection, and use of trails and greenways. This organization actively works to connect trail advocates, planners, and users on local, regional, and long-distance trails in the U.S. Communities and E.D. practitioners wishing to create trails or greenways can benefit greatly from the data and resources available on the American Trails website.

The website’s main page provides the most up-to-date information on trail research, policy, and funding opportunities on local, state, and national levels. Recent article topics include the relationship between the economic bailout and the Bicycle Commuter Act passed by Congress, an explanation of changes to the Federal Highway Administration Recreational Trails Program appointments for the 2009 Fiscal Year, and comments on trail stewardship from the U.S. Deputy Secretary of the Interior Lynn Scarlett.

The American Trails website also has an extensive e-library of over 2,400 resources that focuses on several trail-related topics—building, management, land rights, advocacy, education, and impacts. This e-library can be a trail advocate’s best resource, but it can also be somewhat confusing to navigate because each topic is included as an individual section in the e-library and includes links to sub-sections, which includes links for additional sub-sections. For example, the “Impacts” section highlights studies on health benefits, trail use patterns, and economics of trails. The economics of trails sub-section, for example, then provides subsections on tourism, business, and studies placing value on trails. Because research can, and usually does, cover several topics, many of the articles and studies can also be found under different sections and sub-sections.

The site also provides links to other trail organizations, a catalog of America’s National Recreation Trails by state, trail and greenway job opportunities, and information on trail and transportation conferences. E.D. professionals will benefit from the American Trails website resources and the ability to connect with other agencies, organizations, and citizens that are promoting trails and greenways in their communities and states. Any community or E.D. practitioner wanting to develop a trail or greenway as a method of sustainable E.D. will want to bookmark this website.

- Kathi E. Boatright

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